

Having called for a seventh edition, this small text book of medicine can require but little introduction to the public. The edition before us has been thoroughly revised, and a short section, giving a brief account of the main diseases of the skin and their treatment, has been added by Mr. Malcolm Morris. Though useful in their place as an introduction to the study of medicine, one cannot be forgetful of the harmfulness of books of this class when relied on for too long a time by the student. Their statements, necessarily terse, clear, and dogmatic, then tend to give the student a quite erroneous idea as to the clinical manifestations of disease. On the other hand, broad statements such as we read in the subject of this review, may be quite deep enough for, and possibly very useful to, the student during the first two or three months of his ward work.

THE TREATMENT OF PULMONARY CONSUMPTION, by Vincent Dummer Harris, M.D. Lond., F.R.C.P., and Edwin C. Beale, M.B. Camb., F.R.C.P. London: H. K. Lewis. This excellent little book, written as it is in a truly scientific style, is another useful addition to Lewis's "Practical Series." All through the book the authors well maintain the claim they make in the preface that it is "a fairly full review, at the time of writing, of the subject of which it treats." Phthisis is unhappily so common a disease that no practitioner can go for any length of time without being called upon to advise and treat a case. In spite of this there are few diseases about which the average practitioner makes more mistakes in both respects. We sincerely commend this book to every student. The style of the book is clear, and its tone must appeal to every scientific mind. The chapters on "The History of the Treatment of Pulmonary Phthisis," "Treatment by Injections of Blood-serum of Different Animals," and the "Use of Special Drugs in the Treatment of Phthisis" are particularly interesting; while the practical nature of the chapters on dietetic treatment, including as it does not only a discussion of their relative value, but full directions for the preparation of invalid foods, makes it likely to be of great use. The use of cod-liver oil is fully dealt with, and we notice the authors' wholesome horror of the use of proprietary mixtures of unpublished composition. Prescriptions are liberally given throughout the book, and will probably be very welcome.

ASEPTIC SURGERY, by Charles Barrett Lockwood, F.R.C.S., and TRAUMATIC INFECTION, by the same author. Edinburgh and London: Young J. Pentland.—The first of these two books is a reprint of the articles which Mr. Lockwood wrote for the ST. BARTHOLOMEW'S HOSPITAL JOURNAL under the heading "Notes on Aseptic Surgery." Their republication now is in answer to repeated requests, and we have no doubt but that many will avail themselves of the opportunity of obtaining the articles in book form.

The second book is a reprint of the lectures delivered by Mr. Lockwood in 1895, as Hunterian Professor, at the Royal College of Surgeons. These have already been published in the *Lancet*, and any introduction by us would probably be superfluous.

THE DISEASES OF CHILDREN'S TEETH, THEIR PREVENTION AND TREATMENT: A MANUAL FOR MEDICAL PRACTITIONERS AND STUDENTS, by R. Denison Pedley, London, J. P. Segg and Co., 1895, 8vo, pp. 208, illustrations.—This book is ostensibly written in the interests of the medical student, but its author's ambitious educational aims in dealing rather lengthily with a portion only of the whole subject of dental surgery are likely to endanger the success of the objects he has in view.

It is to be feared that the student, already overburdened with the many subjects of a medical curriculum, will fain turn to literature of a simpler and more elementary nature for instruction in the art and practice of dentistry, such, for example, as is to be found in several of the ordinary text-books on surgery, or in selected chapters even of that generally acknowledged standard work for dental students, viz. *Tonnes' Dental Surgery*.

The book consists of eight chapters; that dealing with dental irregularities, alone occupies a quarter of the whole book, and from the difficult and complicated nature of the treatment of such dental conditions even in the hands of the most experienced among dental surgeons, we have no hesitation in saying that it would have been wiser to omit it altogether. The enunciation of the leading principles underlying the general treatment in such cases would have been vastly less confusing, and a few pages would then have sufficed to have given at once some intelligible and useful ideas on the subject.

It is too much to expect the medical student to grasp the mode of manufacture, the adjustment and action of such mechanical appliances as regulating plates, screws, spring wires, and other devices for moving teeth into proper position in the mouth. He requires to have had some practical experience in the dental laboratory before

he can approach the consideration of such things with anything like a clear understanding of what is aimed at or what is required.

The chapter on "Oral Hygiene" seems rather too spun out. Less prolixity might have been expected on what is after all a chapter based upon the use of the tooth-brush and a proper cleansing of the teeth.

The book concludes with a description of instruments and materials used in the permanent stopping of decayed teeth, but here again the author allows his enthusiasm to run away with him by recommending work to be undertaken which, to put it plainly, is beyond the powers of the student, who has not dressed in the dental department of his hospital, to cope with successfully.

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. Kanthack, at the following rates:

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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 E. H. Shaw, 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.

Births.

ARNOLD.—14th Feb., at 332, Oxford Road, Manchester, the wife of Francis Sorrell Arnold, M.B. Oxon., of a daughter.

RAWLINSON.—On Feb. 16th, at Stuart House, Bognor, the wife of F. Juland Rawlinson, F.R.C.S., of a son.

ECCLES.—29th Feb., at Harley Street, W., the wife of W. McAdam Eccles, M.S., F.R.C.S., of a son.

PALMER.—On the 16th of Feb., at Lancaster House, Lincoln, the wife of Edwin C. Palmer, M.A., M.B. (Cantab.), of a son.

DUCKWORTH.—March 6th, at 11, Grafton Street, Piccadilly, Lady Duckworth, of a son.

NORRIS.—On March 9th, at 7, Oak Hill Road, Surbiton, the wife of F. B. Norris, M.A., M.B., B.C. (Cantab.), of a daughter.

MURDOCH.—March 11th, at The Oaks, Hythe, Kent, the wife of Alan Murdoch, M.R.C.S., L.R.C.P., prematurely of a daughter.

Marriages.

CROUCH—SMITH.—Feb. 18th, at St. Thomas's, Portman Square, by the Rev. Canon Page-Roberts, Vicar of St. Peter's, Vere Street, and the Ven. Archdeacon Smith, uncle of the bride, Charles Percival Crouch, F.R.C.S. Eng., M.B. Lond., of Weston-super-Mare, to Annie Parbury, second daughter of Thomas Smith, F.R.C.S. Eng., of Stratford Place, W.

KENNINGTON—ABREY.—On Feb. 12th, at the parish church, Tonbridge, Edgar Kennington, M.R.C.S., second son of the late James Kennington, The Hall, Walsham, to Enid, second daughter of John Abrey, Barden Park, Tonbridge.

Death.

LLOTT.—On Feb. 21st, at Beechfield, Bromley, Kent, James William Llott, M.R.C.S., L.S.A., aged 80.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *St. George's Hospital Gazette*, *St. Thomas's Hospital Gazette*, *St. Mary's Hospital Gazette*, *The Student* (Edinburgh), *The Nursing Record*, *The Charities Record*, *Two Cases of "Appendicular Colic" Treated by Operation*, by A. A. BOWLEY, F.R.C.S. *Saving of Life through Sanitary Legislation*, by THEO. MAILLER KENDALL, D.A., L.R.C.P., Sydney.

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,

APRIL 14th, 1896.

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

Two Cases of "Appendicular Colic" treated by Operation.

By ANTHONY A. BOWLEY, F.R.C.S.

FOR the notes of the following cases I am much indebted to my house surgeon, Mr. Marshall, and to the dressers of the patients, Messrs. Godwin and Nimmo.

E. R.—æt. 11, was admitted into Darker Ward on December 19th, 1895, under the care of Mr. Bowley, suffering from "appendicitis." He had been for some time under the care of Dr. Addison, of Tenterden, who had advised operation, and who had supplied the history of the previous attacks.

History.—Three years ago he first had an attack of pain in his right side in the iliac region, the pain was very acute, causing the legs to be drawn up, and he was very tender on pressure over the right iliac region, though not so on the left side of abdomen; he vomited several times; the pain lasted about four days, and when it passed off there was marked resistance on the right side of the abdo-

men in the iliac region, but no definite mass could be felt; this resistance cleared up gradually.

Since this time he has had similar attacks of sudden onset, and characterised by abdominal pains, sickness, and distension of the abdomen at the following times:

May, 1893; March, 1894; June, 1894 (this was a very bad attack, with symptoms of general peritonitis); August, 1894; November, 1894; March, 1895 (diarrhoea, blood, and mucus in stools); July, 1895; November, 1895.

There has never been any evident swelling in the iliac region except during an attack.

Present condition.—Patient is a healthy-looking boy; he complains of no pain anywhere, and is perfectly comfortable. The abdomen seems quite natural, no resistance of any kind felt in either iliac fossa, —not distended nor tender. Liver dulness normal, spleen cannot be felt. Has no difficulty of any kind on micturition. Urine acid. 1020. Bowels act regularly.

Operation (January 2nd, 1896).—An incision three inches long was made from above downwards and inwards, between the anterior superior spine and the umbilicus, close to the outer border of the rectus muscle. The sheath of the rectus was opened, and the muscle having been drawn towards the middle line, the posterior part of the sheath was incised and the peritoneal cavity opened. The small intestines here were matted together and constricted by three fibrous bands, and were twisted on themselves; these fibrous bands were ligatured in two places and cut between.

The vermiform appendix was then sought for, and was found after a little trouble buried in some adhesions behind the caecum; it was much swollen and twisted. The appendix was then dissected away from its adhesions, when it was seen that the bands mentioned above were attached to its end. A collar was then made by reflecting the peritoneum, and the appendix was ligatured and cut off, the peritoneum being sewn over the stump so as to completely cover it. The peritoneal cavity was closed with fine silk worm gut. The posterior part of the sheath in the rectus was then sutured, the rectus muscle was replaced in its natural position, and the anterior part of its sheath and the aponeurosis of the external oblique were closed over it. The wound was dressed with cyanide gauze.

January 6th.—Dressed and stitches removed; wound healed; no rise of temperature; has no pain whatever. The patient was kept in bed on his back for three weeks, and was then allowed to get on to a couch. He continued to do well, not having a bad symptom, and was discharged on February 18th, 1896.

An examination of the appendix after removal showed that it contained a concretions about the size of a cherry-stone, and that its walls were very thickened and oedematous. It was not ulcerated.

A. O.—æt. 25, a nurse, was admitted into Stanley Ward on December 16th, 1895, under the care of Mr. Bowley, suffering from an attack of relapsing "appendicitis." She had been under the care of Dr. Jones and Mr. Faulkner at Claybury Asylum, and had been advised to go to the hospital for operation in November. At that time, when seen in the ward, the abdomen appeared perfectly natural, and there was no tenderness or swelling; but her admission was delayed, as there was no vacant bed.

History of first attack.—On December 14th, 1893, at about 10 p.m., when quite quiet, she was suddenly seized with acute pain in the right inguinal region, and vomited. The pain was intense, and there was a tender spot to the inner side of the right anterior superior spine, between it and the umbilicus. The pain extended towards umbilicus up

to the ribs and through to the back. She was constipated for several days, and had to take to her bed. No definite lump was to be felt in the abdomen. She got up again in ten days. Since this she has had four similar attacks at the following times:—June, 1894; January, 1895; July, 1895; November, 1895.

Present condition.—The present attack began with pains and sickness on December 15th, 1895, and is already passing away. She complains of tenderness in the right iliac fossa, and of headache. No history of pain or frequent micturition or renal colic. The abdomen appears nearly normal; on palpation there is marked resistance to the inner side of the right anterior superior spine, fading away gradually; also distinct tenderness at a spot 1½ inches to right of umbilicus, between it and right anterior superior spine. Abdomen moves freely on respiration. Temp. 100°.

December 30th, 1895.—Temperature has been subnormal since December 18th, 1895, and the pain and tenderness have quite subsided.

Operation.—An incision three inches long was made as in the last case, and the sheath of the rectus having been divided the peritoneum was opened; the appendix was found embedded in adhesions about the mesentery, and was enlarged and much thickened. The adhesions were separated and the appendix isolated. A flap of peritoneum was reflected close to its base, and the appendix was ligatured and cut off; the peritoneal collar was then stitched over the stump, and the whole stitched to the omentum around.

The various layers of the abdominal wall were next sutured, and the wound dressed with iodoform and cyanide gauze.

January 6th, 1896.—Dressed, and all stitches removed; wound perfectly healed. The patient was kept recumbent for three weeks, and then on January 25th was discharged, not having any bad signs since the operation.

February 28th.—Is returning to her work. The abdominal wall is quite sound and strong.

An examination of the appendix after removal showed a general thickening and oedema of its mucous lining, and, to a less extent, of its muscular wall. It contained no concretion and hardly any mucus. There was no ulceration.

The symptoms of the two patients whose cases are here recorded may be considered at the present time as diagnostic of recurrent inflammation of the vermiform appendix. It is probable that no other diseased condition of the caecum or its surroundings would give rise to a series of frequent attacks, each of which was quite independent of any such existing cause as chronic constipation and over-loading of the caecum. It may further be pointed out that the history of these attacks supplied by responsible medical men was alone sufficient ground for operation; for, on examining the patients, even when under an anæsthetic, nothing abnormal could be felt, and in neither case was there any muscular resistance on pressure, or any material pain on palpation.

With such conditions as these, not only may a diagnosis of inflammation of the appendix be made, but the further conclusions may be arrived at that the inflammation is yet limited to the appendix itself and its immediately contiguous peritoneum, and that there is no inflammation of the cellular tissue of the iliac fossa. Whether there be simple catarrh, or whether the catarrh is maintained by the presence of a concretion, it is evidently not possible to ascertain before operation.

As to the cause of the colic-like pain, the sickness, and the general abdominal tenderness which characterise these attacks, there can be no doubt that they are due to extension of inflammation from the appendix to the neighbouring peritoneum, and during the operation on the boy it was interesting to observe how bands had been formed, which in

future years might well have been the cause of intestinal strangulation.

As to the operation itself, there is, I think, only one comment worth making, and that is with regard to the line of incision. I have already pointed out in a previous number of the *Clinical Journal* the advantage of making the incision along the outer border of the rectus, for I feel sure that the common incision across the muscular wall of the abdomen is more likely to cause a permanent weakness and tendency to hernia. And, whilst again advocating such an incision, I would further point out that by opening the sheath of the rectus and drawing the muscle towards the middle line, not only is the line of incision made somewhat valvular, but the nerve-trunks passing into the rectus can be easily avoided. The advantage of this as compared with dividing directly all structures, including nerves, along the linea semilunaris has been pointed out by Kocher, who suggests with great probability that one cause of hernia after opening the abdomen in the linea semilunaris is that, the nerves going to the rectus being divided, this muscle wastes as do all muscles after nerve section. I would say, in conclusion, that the incision I have mentioned is also a very convenient one for exposing the appendix in cases such as those here recorded, but that where there is already suppuration, and the operation is undertaken simply for the purpose of evacuating pus, the best incision is that which is placed most directly over the seat of suppuration, without regard to other details.

On the Treatment of Serous Pleurisy by Paracentesis.

By SAMUEL WEST, M.D.

PARACENTESIS has become so much the routine treatment of serous effusion, that no doubt it is very often performed when it is not really necessary; and for any long series of cases that would show the natural history of the affection, *i.e.* the prospects of cure without paracentesis, we have to go back to many years ago, when the operation was not so common. Thus, Louis gives a series of 229 consecutive cases of serous effusion, out of which 224 got perfectly well without paracentesis. Only one of this number died, and then as the result of pericarditis. A similar series of cases has been published by Walsh. Paracentesis is, when properly carried out, such a perfectly simple and safe operation that it cannot, with proper care, do any harm. Yet statistics such as those quoted are of interest and importance as showing that all the good results which follow paracentesis are not necessarily to be credited to the operation.

No arguments are now necessary in favour of paracentesis; all that is necessary is to consider the details of the operation, and when it is desirable to perform it.

Urgent Cases.—There are certain cases in which paracentesis is not only the right thing to do, but the only thing to be done. This is when the effusion is large and the symptoms severe. Then it may be necessary to tap the patient as soon as he is seen, without a moment's delay. This may be called "Paracentesis *nécessité*." Urgent symptoms do not depend upon the size of the effusion only, but to a great extent upon the rapidity of the development of the fluid. Thus, very large effusions may be discovered where there is little in the symptoms to indicate their size; and on the other hand, some effusions, not of very large size, may be associated with severe symptoms, especially if the fluid has developed rapidly. The urgency will of course be greatest where effusions have formed, or re-formed after paracentesis, with great rapidity. Thus,

paracentesis may become urgent within a day or two of commencement of illness, and may have to be repeated in a similar time; for instance, a young man, of about 25 years of age, was admitted on what was the third day only of his illness: his chest was brim full of fluid; paracentesis was urgent, 80 ounces were removed, and in three days' time he had to be tapped again, and the same amount was removed, after which he made a rapid recovery.

I have also removed 127 ounces after only 10 days' illness, so that the rate of effusion may be very rapid. In the first case it was at the rate of a pint and a quarter in the twenty-four hours, *i.e.* more than an ounce an hour.

On the other hand, small effusions sometimes cause such grave symptoms as to require paracentesis before they reach any large size. This is not common with simple effusion, but is more likely to occur when the effusion comes as a complication with some other affection, *e.g.* in the course of phthisis, pneumonia, or morbus cordis; or again, where the effusion is double, *i.e.* on both sides. In all these cases delay is dangerous, and paracentesis should be performed at once, and if the fluid reaccumulates, repeated also without delay even before the symptoms again become acute.

2. In another class of cases paracentesis, though not urgent, is desirable, and that without much delay—*e.g.* where the effusion is very large, although there may be no severe symptoms produced by it at the time. In such cases it is unlikely that the fluid will spontaneously disappear, for, owing to the pressure (if to no other cause), the pleural pump is out of gear, and cannot work until the pressure is relieved; and though in time the relief might come spontaneously, still it will be only after lapse of some time, and all the while the patient is liable to sudden aggravation of symptoms, which would bring the case into the preceding group, and make paracentesis urgent. With large effusions the removal of even a part of the fluid may lead to the rapid disappearance of the rest.

3. A third group of cases is formed by those in which the effusion is of moderate dimensions, and in which no important symptoms are produced by it.

In nearly all these cases, as stated, the effusion will, in all probability, disappear spontaneously in time. What we have to consider is whether paracentesis will accelerate cure, and when it should be performed. Upon these points there is room for great divergence of opinion. Some advocate the earliest possible interference, even as soon as the effusion can be diagnosed. Others would leave it for a period of two or three weeks, and some still longer.

As to early interference it is very difficult to prove the advantage of interference by figures, which are as likely to mislead as to lead to a right conclusion. There seems to be a general consensus of opinion, with which my personal experience agrees, that it is not desirable to perform paracentesis too early during the ingressive stage unless the fluid reach large dimensions rapidly or severe symptoms be present. As long as the effusion is of moderate dimensions it is best to postpone paracentesis till the active or acute stage of the disease is passed, or, at any rate, until the case has been watched for some little time. Most of the cases at St. Bartholomew's which were tapped had been ill, though not in the hospital, for two or three weeks. In some cases paracentesis was performed at once, being urgent, and in many after only two or three days' stay in the hospital.

On the other hand, opinion is equally strong in favour of not leaving the effusion too long unrelieved, and it is generally felt that if an effusion shows no sign of diminution by the end of the third or fourth week it is well to tap.

The reasons for early paracentesis are chiefly theoretical:

First, that the effusion is checked. Of this there is no conclusive evidence. Some authorities indeed maintain that operation during the active stage excites effusion, and acts as an irritant to the pleura. At any rate, what is constantly observed is that the fluid is rapidly reproduced after paracentesis, just as if no effect had really been produced.

Secondly, that the longer the lung is left compressed by the fluid the more likely it is to be bound down by adhesion, so as to become incapable of re-expansion. Now, although there are a few cases recorded in which extensive adhesions have formed within a few days, such cases are altogether rare, and if adhesions form so early they are usually soft and unresistant, so that they offer no real difficulty to the re-expansion of the lung when the inflammation has subsided and the fluid has been removed or has spontaneously disappeared. In the great majority of cases, even when the fluid has been left for weeks, the lungs come out again without difficulty when the fluid is withdrawn, and there are many cases recorded in which the lungs have re-expanded completely after being compressed by an effusion for many months.

Thus Wailly records a case of complete re-expansion of the lung after an effusion of nine months' duration, and I have seen the same occur after an effusion of still longer duration (eighteen months).

Thus, the two main indications for early paracentesis proving to be based on theory rather than on clinical experience, it follows that there is no need to be in a hurry to perform paracentesis, but that it may be safely postponed for two or three weeks, or even longer if it should be thought desirable.

At the same time it should not be postponed too long, for there can be no doubt that when the acute ingressive stage is passed recovery is greatly accelerated, that is to say, such time is gained, by the removal of the fluid, even when the effusion is small.

We might therefore sum up the question of paracentesis in this way: There is no reason to hesitate to perform paracentesis whenever it seems in any way indicated. At the same time there is no necessity to be in a violent hurry if the symptoms do not suggest it.

The general frequency of paracentesis is about 50 per cent., *i.e.* in cases of pleuritic effusion now-a-days about 50 per cent. will require tapping. Of the 200 cases from St. Bartholomew's Hospital 94 were tapped—46 per cent. Of 60 cases under my own care 27 cases were tapped. Of the latter 2 were tapped twice and 3 three times. This agrees exactly with the larger figures from the Hospital records, in which 10 per cent. also required more than one paracentesis.

Contra-indications for Paracentesis.

I really do not think there are any.

1. Fever.—In many cases that come under observation the temperature is normal, for the effusion has existed some little time and the febrile stage is passed. In acute cases where the temperature is still high the operation may be performed safely if necessary, but the temperature is not usually materially affected in any way by the operation. It is quite unusual to see the temperature drop after paracentesis for serous effusion in the way it often does after the paracentesis for empyema, yet it may. Usually the fever continues, for a time, much as it was before paracentesis, even when the effusion does not re-form.

Of course, the persistence of high temperature shows that the course of the effusion is still active, and that the inflammation of the pleura has not completely subsided.

It may even happen that paracentesis may be followed by a rise of temperature in a case in which at the time of operation the temperature was normal. This is probably to be explained by the irritation of the pleura, caused by the two layers coming once more into contact, for in many of these cases a return of pain and friction occur.

2. Phthisis.—On many more cases of pleurisy are of tubercular origin than was formerly supposed as to suggest the conclusion, which I think to be correct, *viz.* that the tubercular origin of an effusion does not affect the question of paracentesis at all.

There is a theory, it is true, that pleural effusion checks the progress of phthisis in the lungs. I do not think that this rests upon any reliable clinical evidence, and I certainly do not agree with it. Within my own experience this theory has been responsible for effusions being left unrelieved for a long time; and yet in the end paracentesis has been followed by complete recovery, without any progress in the disease in the lung.

Pleural effusions, therefore, associated with phthisis, may be treated in the ordinary way; but as the lung is already damaged, care will be necessary if the aspirator be employed, for too great suction may easily cause the diseased lung to rupture.

3. Purulent transformation of the fluid.—More used to be heard of this risk in years past than is heard now-a-days, for, in the first place, this transformation was not infrequently seen, and, in the second place, it was believed to be the natural course of a serous effusion, which lasted any length of time.

This theory is, however, wrong, and we now know that serous and purulent effusions, depending as they do generally upon different pathogenic organisms, are, as a rule, serous or purulent from the commencement and remain so till the end.

The purulent transformation of a serous effusion means fresh infection with pyogenic organisms. This infection might arise spontaneously from within, *i.e.* from the lung or organs within the chest, or be introduced from without by paracentesis.

In the latter case it is due to dirty instruments or a careless operator, and if the ordinary antiseptic precautions be observed the risk of converting by paracentesis a serous effusion into an empyema may be practically disregarded.

Many years ago Dieulafoy maintained this in opposition to some of his contemporaries, and his results could hardly be excelled by those of recent years—in 180 punctures in sixty-nine cases of pleuritic effusion there was not a single instance of purulent transformation.

I remember to have seen such transformation occur, not altogether infrequently, in my student days, and occasionally also since, but I have never had an instance of it in my own practice, so that I believe such a result to be entirely within our own control.

I have seen also the opposite occur, viz. a purulent fluid become less and less purulent as paracentesis was repeated, and end at last by becoming serous, when the patient rapidly recovered.

The Operation.

An anesthetic is unnecessary, for the pain of puncture is very slight.

It is also on its own account undesirable, for an anesthetic deprives the operator, during the removal of the fluid, of the guidance which the patient's feelings otherwise give.

If, on account of fear or excitement, some anesthetic is thought necessary, a whiff of nitrous oxide gas would be sufficient. At any rate ether should be avoided, on account of the irritation it causes to the air-passages. A pad of lint soaked in a 20 per cent. solution of cocaine, and applied for an hour or two before the operation is performed, will remove the pain of the puncture through the skin, but it will not affect the pain felt as the needle passes through the intercostal spaces, especially if it strike the ribs. A small subcutaneous injection of cocaine would make the operation absolutely painless; but I am not fond of injections of cocaine, for they sometimes give rise to unexpected and unpleasant symptoms. Really the pain is so trifling that it is best for the patient to resolve to bear it without any anesthetic.

The aspirator is in most cases quite unnecessary, and if employed should be only exhausted to such an extent as to make the fluid flow. The great objection to its use is that unless a manometer be attached (and this does not form part of the ordinary apparatus) it is impossible to say what amount of suction is being employed, especially towards the end of the operation. Too much suction may cause the lung to rupture, and this is the common explanation of pneumothorax occurring during paracentesis.

Rupture of the lung is less liable to occur with serous effusion than with empyema, for the lung is not so likely to be diseased near the surface, and it is impossible in a case of pleurisy to be certain that the lung is sound, and if by undue suction a phthisical cavity be opened, its contents will be sucked into the pleura, and with very possibly putrefactive organisms which will convert the serous into a purulent effusion.

Even if the lung be sound there may be adhesions which bind it down in places, so that as the fluid is removed irregular expansion of it will take place, and in this way even a healthy lung might be stretched to such an extent as to give way. The pressure of a few inches of mercury is quite sufficient to burst a healthy lung out of the body, so that the dangers of the aspirator when carelessly used are by no means imaginary. I doubt if any healthy human lung could stand a pressure of more than nine inches of mercury, and many will hardly stand more than three or four.

The safest apparatus for tapping serous effusions consists of an ordinary trocar and cannula with a tube extending to the floor. This has been called syphonage as distinguished from aspiration. The tube, when filled with fluid, acts as a syphon.

Under this arrangement the fluid flows away under a negative pressure of from 18 to 24 inches of water, i.e. roughly speaking the distance from the chest to the floor. This is equivalent to about 18 inches of mercury. The fluid, as long as it flows, will remain under the same constant negative pressure, and not, as when the aspirator is used, under a negative pressure, which constantly varies from almost zero to even several inches of mercury.

The end of the tube should be placed in a small vessel filled with water, so that no air may enter the pleural cavity, if it should so be that the intra-thoracic pressure is negative. I have seen air gain access to the pleura for this reason, but of course if the mouth of the tube be under water such an accident cannot occur. Usually there is pressure enough in the pleura to fill the tube, and then it acts as a syphon, but if not, the syringe may be necessary to fill the tube before the syphon can act.

The effusion should not be removed too rapidly, and therefore the needle selected should not be a large one. Usually the middle-sized needle supplied with the aspirator, of about a sixteenth of an inch in diameter, is large enough.

The amount necessary to be removed.—There is no need to limit this by any theoretical consideration. If a syphon tube be used, I should recommend that as much be taken away as will flow away easily. How much this will be in any given case it is impossible to foretell; for even with large effusions it may happen that little can

be removed, on account of unpleasant symptoms which arise, but if the pleura can be emptied, or nearly so, so much the better.

I make it a rule to take away as much as I can get without discomfort to the patient, and I have never had reason to think this wrong; but then I rarely use the aspirator, and this I believe to be the reason why. It is true that the removal of a small amount of fluid is often followed by the spontaneous disappearance of the rest, but this cannot be calculated upon, and if the pleura has been only partly emptied and the fluid re-form, paracentesis will become necessary all the earlier. Besides, it is a good thing to get the lung to expand as freely as it can without risk or discomfort.

I have occasionally, after emptying the pleura as far as I could with the syphon, affixed the aspirator to try how much more I could get away under greater suction. Frequently I have failed to get more than an ounce or two, and that with the production of distress to the patient, e.g. after removing thirty ounces with the syphon a suction of —30 inches of water was necessary to obtain ten ounces more, and this caused much cough and pain in the chest, and was all that the patient could bear.

From these considerations it follows that all the fluid that can be removed safely can usually be taken away with the syphon alone, and that the aspirator is not necessary.

The amounts removed of course vary—sixty ounces is a fair average, but though it may greatly exceed this, any amount above 100 ounces is uncommon.

Among the 250 cases analysed, 105 ounces were removed once, 115 once, 120 three times, 127 once, 130 once, 139 once. Besides these cases I have twice removed 150 ounces.

The largest amount recorded is, I believe, in a case of Leibermeister's, viz. 7 litres = 245 ounces.

When the paracentesis has to be repeated, the amounts removed usually decrease on each tapping, but not always.

	1st Parac.	2nd Parac.	3rd Parac.
1	100	40	—
2	63	94	—
3	50	50 (6 days later)	27 (5 days later)
4	29	60	43
5	90	100 (14 days later)	—
6	50	57 (4 days later)	—
7	70	90	40

The place of puncture.—This should of course be as far as possible in the centre of the dull area, but in the majority of the cases of serous effusion the fluid occupies the lower part of the pleural cavity, the common spot for puncture is on the horizontal level of the nipple, in the fifth or sixth intercostal space in the mid-axillary or posterior axillary line. A position lower than this is not so convenient, for as the fluid flows the diaphragm quickly rises, and reaching the mouth of the cannula, may choke it.

Mode of operation.—The needle should be held firmly in the hand, at right angles to the chest wall, and pressed with firm and constant pressure slowly inwards. Directly the prick of the needle is felt the patient will shrink and change his position; it will then be difficult to know where the point of the needle is, and it will almost certainly strike the rib, which will cause the patient pain, and may turn or break the point of the needle. If the needle be still forced on it may slip over the edge of the ribs and enter the chest with a jump, and thus go further than was intended or desired.

To avoid this, before the needle is used the finger or thumb of the other hand should be firmly pressed down into the intercostal space at the place where the puncture is to be made, and the needle then passed over the centre of the nail. By this means, even if the patient shrink the place will not be lost, and the needle will be easily introduced through the space, and will not strike the ribs. Easy as it may be thought to avoid the ribs in paracentesis, it is in practice by no means so easy as it seems.

Risks of the Operation.—There are practically no risks at all if ordinary care be used, and the diagnosis is correct.

Of course it is in all cases important to ascertain carefully, before the operation is commenced, where the heart is placed; and this may be determined by auscultation if by no other means. The diaphragm is very unlikely to be touched if the needle be inserted in the place recommended, and directed towards the middle of the chest. A mere puncture of the diaphragm is, however, of no serious consequence, and I have even known, in a case of ascites, the abdomen emptied through a needle inserted into the right side of the chest, to remove an effusion which was thought to be in the pleura and was not, so that the diaphragm was penetrated.

Nor is the lung likely to be injured. It is, I suppose, often pricked, especially if the needle pass into the chest with a jump. A mere

puncture will, however, do no harm, and laceration of the lung by the needle I believe hardly ever occurs. If the lung is torn during paracentesis it is generally not due to the needle, but because the aspirator has been used and too much suction employed.

Wounding of the intercostal artery is a danger more imaginary than real. I have never seen such an accident occur, though a few cases of it are recorded in literature.

(To be continued.)

The Blood Parasites of Malarial Fevers.

By JAMES HUSSEY, M.R.C.S.

A Paper read before the Abernethian Society on November 21st, 1895. (From the Pathological Laboratory.)

MR. PRESIDENT AND GENTLEMEN.—It is my purpose in this paper to give a short account of the discovery of the parasites occurring in the blood in malaria, and of the views which are now most generally held as to their nature and meaning. The reasons which led me to select this matter as the subject of my paper are, in the main, two: *firstly*, it is a subject of considerable practical and theoretical interest; and *secondly*, it is a matter which has, so far, received comparatively little attention in England—far less, indeed, than its importance seems to merit.

The modern text-book of medicine, with its rapidly recurring editions, keeps so up to date on most questions, that even he who is most pressed for time can get at any rate an outline of the most recent advances in technical knowledge. And hence it comes to be very difficult to find a subject of any great importance to medicine whose details are not readily accessible to any one interested in them.

But for some reason or other the subject of the malarial parasites has been almost entirely neglected by English works on medicine. For example, the edition of *Fagge's Medicine* of 1891, eleven years after the original discovery of the parasites, devotes to their consideration exactly ten lines in an account of the etiology of the disease extending over five or six pages. And this omission can scarcely be due to the fact that the subject is considered unimportant in face of the degree of detail with which the other aspects of malaria are considered. Indeed, I think that on at least two distinct grounds the question deserves some little attention.

In the first place its practical results as regards malaria itself, especially as regards diagnosis, have been of inestimable value. Malaria is one of the most widespread and disastrous diseases on the face of the globe, and although most of us may have to deal with it only in a most limited degree, yet we must remember that in many of the most important of our colonies and dependencies it still forms one of the most serious factors in the lives of the inhabitants, especially European inhabitants. For example, of 10,000,000 English soldiers stationed in India between 1850 and 1875, there were actually over 400,000 admissions to hospital for malaria, and these formed something like 50 per cent. of the total admissions to hospital for all diseases. So that though in England itself malaria has lost much of its influence, yet in these more indirect ways it is of supreme importance to the nation, and especially of course to those who are likely to have to live or practise in malarial colonies. And even in England, even, indeed, at St. Bartholomew's, the question of diagnosis in cases who have been exposed to malarial infection not infrequently arises. And then is necessary some acquaintance with the methods of discovering the parasites.

But apart from all practical considerations there is a second ground for regarding this question with some interest—namely, that it is a new departure in pathology, that subject on which medicine has lately been so dependent for its advances.

Any new pathological discovery is of importance, not only for its own sake, but for the possibility of extension to other subjects.

The incalculable effects on medicine which have already resulted from the recent discovery of the part played by bacteria in many diseases are enough, surely, to render the discovery, in other diseases, of totally different parasites of possibly overwhelming importance to medicine generally, for this discovery opens up possibilities of explaining many other conditions hitherto obscure.

These and similar reasons make me think it may not be altogether

waste of time to devote a short time to the consideration of the subject.

The General Features of Malarial Fevers.

Under the term malaria are grouped together a number of diseases which differ greatly in detail, but in their main features strongly resemble one another, so that quite apart from their causation they form a clinical group.

With rare exceptions they are characterised by fever, and this fever shows a marked tendency to recurrence or exacerbation at regular intervals. The fever is generally associated with marked constitutional disturbances, the nature and degree of this varying greatly in different cases.

The disease, after persisting for a certain time, may disappear spontaneously, or may lead to death; but on the other hand it may, if untreated, persist almost indefinitely; in this it differs widely from most of the so-called specific fevers. But in any case it shows a very marked tendency to recur, even after long intervals of apparent cure, and after removal of the patient from all possible sources of re-infection. And either if the primary disease be not cured for a long time, or if the patient suffer many recurrences, there tends to arise a chronic so-called cachectic condition which forms one of the most serious aspects of the disease.

The geographical distribution of malarial fevers is extremely wide. Roughly speaking, the worst and most extensive malarious areas occur in the tropical and sub-tropical zones, in the greater part of which these diseases form one of the most serious factors in the life of the inhabitants.

In passing from the tropics to more temperate zones, we find still vast districts where the disease is prevalent, though the type is generally less severe than in the tropics. In Europe mild malaria occurs almost all over the continent, and very virulent forms still exist in some regions, as, for instance, the marsh district around Rome. In England there is now, but little malaria (except in persons who have been abroad), and what there is is confined to certain areas, and is very mild in type. But this has not always been so. Watson records the fact that both James I. and Oliver Cromwell died of this disease, which they contracted in London, and Sydenham's account of epidemics about 1660 renders it evident that it was then far from uncommon.

People of all ages are liable to be attacked by malaria, and Watson quotes from Russell's *History of Aleppo* the description of a case of its occurrence *in utero*. "The woman," he says, "had a tertian ague, which attacked her of course every other day; but on the alternate days, when she was well and free, she felt the child shake; so that they both had tertian ague, only their paroxysms happened on alternate days." Bark was prescribed for her, and it cured the little one first, and afterwards it cured the mother." And other cases of intra-uterine infection have been described more recently.

There is one other fact as to etiology which seems very interesting in view of our present knowledge of the subject, and that is that the natives of tropical countries, especially negroes, are far less liable to the disease, and take it far less severely, than do Europeans.

Into details of the clinical classification of the diseases I shall not enter, nor is it necessary to do so. But the main subdivisions must be clearly understood in order to get a proper idea of the classification of the parasite concerned. There are, roughly, two broad groups of cases: (1) The simple truly intermittent fevers; (2) A much more complicated group, in which the fever, though it may primarily be intermittent, shows a marked tendency to become continuous and irregular, though it may still show periodic increases.

The first group, the simple intermittents, include the milder cases of the disease. In temperate zones they occur chiefly in the spring (the second group of fevers occurring almost exclusively in the summer and autumn). It has been known for a very long time that spring agues tend to be far less serious than those of summer and autumn. They were even thought by some to be beneficial, and there is an ancient rhyme to the effect that "an ague in spring is physic for a king." These intermittent fevers are divided into three classes, quotidian, tertian, and quartan, according as the febrile attacks occur daily or at intervals of two or three days.

The febrile attacks in these fevers occur with great regularity, scarcely ever become continuous, and are very rarely dangerous to the patient if treated. However, if untreated they may persist indefinitely and always tend to recur, and repeated recurrences may lead to a cachectic condition marked by two main symptoms—profound anaemia and great enlargement of the spleen.

The second group of fevers is not nearly so definite as the first. It includes all the severe forms of the disease, and from the time of

its occurrence has lately received the name of the "summer-autumn fever."

These fevers differ very widely in their symptoms, which may be very severe, and indeed rapidly fatal, or comparatively mild. The fever is either irregular from the beginning, or may commence as a more or less marked intermittent, which tends soon to alter in character. The other symptoms vary in different cases, and this has given rise to many elaborate clinical classifications of the different forms.

The very severe types of cases are generally spoken of as malignant or pernicious, and in these cases one special symptom may be so marked as to entirely mask the other symptoms. Perhaps the best known example of this is that form in which cerebral symptoms are the main feature of the disease, the patient either becoming delirious or more frequently comatose. But apart from these cases with one very severe symptom, there are other cases which rapidly become serious from the extreme constitutional disturbance accompanying the fever, and to these also the name malignant or pernicious is commonly applied.

History of the Pathology of Malarial Fevers.

Our knowledge of the parasitology of malaria practically dates from 1880. Before that time scarcely anything as to its ultimate nature beyond the broad etiological facts was known. One gets, it seems to me, a vivid idea of the progress of knowledge on the point by comparing the opinions of physicians of modern times with those of a century or so ago. And in looking up this point I came across two remarks, one of Sydenham's in about 1660, and the other made by Trousseau as nearly as possible 200 years later, and about thirty years ago, which form together a fair account of the progress made in that time.

Sydenham, after giving an account of an ague fit, goes on to consider the cause of the intermittence, and says—

"With these premises we may see why the fit returns when the patient seems out of danger. The febrile matter still hangs about him. Like broods of bees that grow gradually at stated times, the latent matter, regulated by the character of its type, presents itself anew. It provides fresh work for nature, and runs the same course that it did before. Now if any one should ask me why such a secret power has not been sufficiently reduced by the previous effluence—why it gives rise to a new tragedy,—and why, instead of taking one, two, or three days to come to maturity and to excite a second paroxysm, its progress varies with the nature of the intermittent—if any one, I say, requires answers upon all these points I am ready to confess my ignorance. Etiology is matter of difficulty, and I choose to keep my hands clear of it."

Trousseau, in his clinical lecture on intermittent fevers, gives an account of a theory practically identical with Sydenham's, and comments on it in these words: "Were the recurrence of the paroxysm dependent on a remaining excess of morbid matter not expelled in the previous crisis, it would still remain to be discovered why the potency of this morbid matter increases with greater or less rapidity according to the different kinds of fever. . . . How does it come to pass that an individual struck by a quartan should feel perfectly well a quarter of an hour before the return of the paroxysm, although the morbid matter then brought into action must have been previously quite ready to act?"

On account of these difficulties he decides that the cause of the intermittence must depend on some property of the central nervous system, not on the action of a recurring poison in the blood—a view of the question which, in face of the recently acquired knowledge of the etiology of the disease, appears distinctly further from the mark than that of Sydenham.

Nevertheless, during that time theories as to the morbid substance concerned had not been altogether wanting.

It had long been known that marshy districts were the favourite, though not the exclusive seats of malaria, and a fairly obvious deduction to be made from this was that the cause of the disease was the inhalation of the mists and emanations from the marshy soil. In 1716 Lancisi published a work on these fevers in which he gave, as the exciting cause, certain animalcules formed by putrefaction of vegetable matter in swampy regions; and from that time on there were from time to time fresh discoveries of the cause of the disease—at times infusoria, at others the spores of algae, bacteria, and numerous other microscopic objects.

But none of these discoveries attracted much attention till, in 1870, Klebs and Crudeli discovered "the malarial bacillus." They passed quantities of air near the ground of marshes over plates coated with glycerine jelly, and found that certain bacilli grew on these. They then found the same organisms in the water and soil of malarious

districts. They made cultures, which appear to have been very impure, by introducing mud into culture media. From the growths obtained they made other cultivations, and injected these into animals with the result, as they stated, that they produced symptoms analogous to those of malaria. Great doubt has always been thrown on the malarial nature of these symptoms—indeed, it is yet unproved whether animals are liable to malaria.

However, immediately after the publication of this work various pathologists in Italy obtained results which led them to agree with Klebs. Marchiafava even saw the bacilli in large numbers in the blood of a patient during an apyretic interval. This was the position of things in 1880, when a French army-surgeon Laveran, who was working in Algiers at the subject of pigmentation in malaria, noticed, while examining the blood of patients, certain spherical and crescent-shaped bodies containing pigment but no nuclei. Soon after this, while yet uncertain of the nature of these bodies, he saw certain spherical bodies with long flagella in a state of violent movement. From this time he seems to have been convinced of the parasitic nature of these various bodies. After examining some hundreds of cases he published his results in 1881.

It will be more convenient to deal with the subsequent history of the discovery when we are considering the details of the life history of the organisms.

The Preparation of Specimens of Malarial Blood.

The manipulations and processes involved in the preparation of blood specimens to demonstrate the morbid appearances in malaria are very simple indeed, but they need to be carried out with considerable care, and a small amount of practice in making blood preparations is necessary before constantly good results can be obtained. Blood is so delicate that a very small amount of rough treatment, or a very short exposure to abnormal conditions, may render it quite useless for histological purposes.

There are two points on which, it seems to me, depends much of the success or failure of the preparation. They are, *rapidity* in all the operations, so that the blood is exposed to little as possible to air, and *absolute cleanliness* of everything which comes in contact with the blood, especially the skin of the patient and the slides and cover-slips. If these two points be attended to, very little practice is necessary to make good preparations.

The blood should be examined, both fresh and as a dried, stained, film. I think it will be found that the detection of the abnormal appearances is rather easier in fresh blood than in dry films, though they are often very obvious in either way.

In examining fresh blood the patient's finger is carefully cleaned and very thoroughly dried, and then pricked. A drop of blood is gently squeezed out and wiped off, and a second very small drop (not much larger than a pin's head) pressed out. A cover-slip, held by its edges, is made to just touch the drop, and then at once dropped on to a perfectly clean slide. The cover-slip must be very thin, or the preparation will almost certainly be useless; a No. 2 cover-slip is no good. No pressure whatever should be applied to the cover-slip. The cover-glass is then ringed with vaseline to prevent evaporation. No further treatment is necessary. A preparation of this sort will generally last for half an hour or longer before deteriorating much.

Dried films are prepared by taking up a minute drop of blood on a cover-slip, which is then brought into contact with another slip. When the blood has spread out so as to leave on each glass a very thin film of blood. This film should be the same thickness all over, and so thin that it scarcely appears pink on looking through it. The film thus made may be treated in several ways. It may be dried naturally or be put at once into a mixture of alcohol and ether for some minutes; or again, it may be held while still moist in the vapour of 1 per cent. osmic acid or formalin. The last two methods have, I am inclined to think, distinct advantages. The vapour fixes the structure at once, and so keeps them in their natural condition; and apart from this I find it very much easier to make good preparations by its use than without it. The film prepared by one of these methods is passed over a small bunsen flame several times, and then stained.

A great number of special methods of staining have been devised, but most of these are quite useless for clinical purposes from their complexity; and perfectly satisfactory results can be obtained by quite simple methods, e.g. that recommended by Kanthack and Hardy for staining blood, which consists in the use of eosin and methylene blue. Undoubtedly the simplest and best stain to use is methylene blue. The ordinary Löffler's solution, made by mixing a

saturated alcoholic solution of methylene blue with a 1 in 1000 solution of potash, answers perfectly well, and has the great advantage of being in common use. The dried film, after being heated, is immersed in this stain for twenty to forty seconds, washed in water and dried by blotting paper. It is then gently heated again, and mounted in xylol balsam. It is easy and *utem* of importance to double-stain by using eosin as well as the blue. The film is first stained in eosin ($\frac{1}{4}$ per cent. in 70 per cent. alcohol) for about twenty seconds, washed, dried, and heated, and then stained in methylene blue as before. But it needs more practice to acquire certainty in this method, especially if the stains are freshly made.

The Abnormal Appearances of Malarial Blood.

We have now to consider what are the changes to be expected on examining microscopically the blood of a patient suffering from malaria.

In the first place most of the changes are to be looked for in the individual corpuscles, and especially in the red corpuscles. Most of these will appear perfectly normal—round, pale yellow, homogeneous discs. But here and there, perhaps only at wide intervals, a very striking appearance may be seen. In the middle of what is obviously a red corpuscle is a body rather paler in colour than the rest of the corpuscle. Its edge is irregular, but fairly well defined; its size may be anything from a very small dot to a mass nearly filling the corpuscle. In its substance, unless it be very small, are a number of brownish black pigment granules, which may be at rest or in a state of violent, more or less streaming, movement. This movement when marked is very striking indeed. If the body itself be carefully watched it may be seen to gradually change its shape in an amoeboid fashion—this movement being specially well marked in the smaller forms.

The largest of these bodies may have around it a mere film of corpuscle, or may be quite free in the plasma.

At certain stages in the course of the disease there are seen in the corpuscles bodies similar to these large forms but differing in structure. The pigment, instead of being scattered, is collected in the centre, and the substance of the body instead of being homogeneous shows radial striation, which, gradually becoming more marked, leads to the separation of the original body into several small masses containing no pigment.

The whole appearance of these various forms of amoeboid or spherical, pigmented, intra-corporcular bodies and of the modified segmenting forms is most peculiar and striking. It is not likely to be mistaken for any of the appearances of normal blood, and there is no other known pathological change at all resembling it.

The occurrence of these intra-corporcular changes is the point to be looked for first in all cases. Its presence is pathognomonic; its absence, at least if several examinations be made during the course of disease, almost excludes the possibility that the patient concerned is suffering from malaria. But in a certain proportion of cases other abnormal appearances may be seen with or without the intra-corporcular bodies we have just considered.

The commonest is the occurrence of certain crescentic (or ovoid) pigmented bodies in the plasma. These crescents are extremely characteristic, and when once seen can be mistaken for nothing else. They are clear, pale, homogeneous bodies with a marked highly-refractile border. They are very constant in size, their long diameter being about that of a red corpuscle. The pigment is generally collected in a mass or ring near the centre of the body. Amoeboid movement is never seen.

They generally appear to be quite free in the plasma, but very careful focusing generally shows a fine curved line joining the two forms of the crescent, and this line may often be seen to be the edge of a delicate film attached to the concavity. This film, as will be seen later, probably represents the remains of a red corpuscle in which the crescent originally was situated.

Besides the intra-corporcular amoeboid or spherical bodies and these crescentic forms, there is one other appearance, seen only some little time, five minutes or so after removal of the blood from the body.

From the periphery of pigmented spherical bodies, similar to all appearances to the adult intra-corporcular parasites, may be seen to shoot out suddenly one or more long flagella which lash about violently in the fluid, and lead to great disturbance of neighbouring corpuscles. These flagella may break off and swim about free in the plasma. It was the observation of these forms which led Laveran, and subsequently several other observers, to regard the bodies seen in malarial blood as parasitic organisms.

Besides these various new bodies found in the corpuscles or plasma, there is one other change in the blood which may at times be ob-

served, and that is the presence of pigment in the leucocytes. This is of importance diagnostically, for it may be seen even when there are no other abnormal appearances in the blood.

The appearances seen in a properly prepared dried film are very similar to those of the fresh blood we have just been considering, and the fact that the abnormal bodies stain in a perfectly regular manner renders them generally very obvious.

All these bodies take up methylene blue very easily, so that in a specimen stained with this dye the intra-corporcular bodies of all sizes, the large extra-corporcular forms, and the crescentic or ovoid bodies, are all markedly stained, while the normal red corpuscles and the remaining parts of the affected corpuscles are scarcely stained at all. If eosin be used as well, the contrast with the pink corpuscles is still more marked.

The nuclei of the leucocytes stain, as in normal blood, markedly blue, and if eosin be used there will, in a great number of the bodies of the leucocytes, be seen, crowded together, fine or coarse pink granules producing a quite characteristic appearance, which can scarcely be mistaken for any of the abnormal appearances we have to deal with.

So that in methylene blue preparations the only deeply-stained parts are the nuclei of the leucocytes and the various forms of parasitic bodies, and these two varieties of bodies do not stain in the same way.

In the first place the blue colour of the nuclei is much more marked and vivid. It is often, indeed, quite a different tint to that of the parasites, which are rather grey-blue than pure blue. This difference of colour is often very marked, and serves to pick out parasitic forms very easily even with low powers.

Again, the nuclei when examined with a high power always show deeply-stained chromatin filaments, the rest of the nucleus being lightly stained or not at all. On the other hand, the staining of the parasites is generally rather diffuse. In the spherical bodies the staining is generally most intense at the periphery and less marked centrally, and the crescents commonly stain most deeply at their extremities.

In no forms of the parasites is there seen a stained nucleus, and this is a point of great importance in diagnosing the nature of bodies in the blood. Whether there is really a nucleus in these bodies or not is another matter, but at any rate it is totally different in appearance when stained from the corpuscular nuclei, for it is represented if at all by the unstained central portion of the parasite.

The Nature, Life-history, and Classification of the Parasites.

These being, then, the appearances commonly seen in malarial blood, how are they to be explained?

There is considerable difficulty in attempting to give in brief an account of the organisms causing the blood changes, for the simple reason that scarcely any two observers are entirely agreed on all points. There has, in the last ten years, been produced a mass of work by different observers, much of which has become generally accepted, but of which part has received but partial confirmation or none at all. Hence any account of the changes taking place in malarial blood must necessarily involve details which are not quite generally accepted at present.

The position of the main questions can best be understood by briefly referring to the history of the views held since Laveran's discovery in 1880.

The announcement of this discovery, coming as it did when the Klebs Crudeli bacillus seemed to have settled for good the nature of the disease, was received on all sides with considerable scepticism. But in the course of a few years his observations were confirmed from all parts of the globe by most competent men. One after another, those who saw the appearances Laveran had described became convinced that they represented a *living parasite* in the blood. For some time many of the upholders of the bacillary theory of the disease, including Marchiafava and many of the Italian investigators (who on account of the extensive prevalence of the disease in Italy have done a great deal of work on the subject), explained these appearances as being due entirely to degenerative changes in the blood-corpuscles. But they gradually gave up this idea, and for the last ten years much of the standard work on the subject has emanated from Italy.

It is, I think, only necessary to realise the remarkable agreement on the part of eminent pathologists as to the real presence of a living parasite, to estimate at their true value the "discoveries" which even now occur from time to time, of the fact that all the changes are degenerative. It is not a new idea, as appears to be thought by some people, but at the best is only a stage through which more

uity of liquor amnii mixed with meconium escaped. The child was found lying in the usual attitude with its back in front and to the left. It was extracted without difficulty, and the fundus uteri raised out of the abdominal cavity at the same moment, covered by a hot pad, and compressed from before backwards. This caused the expression of the placenta immediately. The umbilical cord was tied and the child removed. The hæmorrhage from the cut surfaces of the uterine walls was considerable—spouting in many places from the uterine sinuses. This was controlled without difficulty by grasping the uterus with a hand on each side of the wound, and compressing it from before backwards. Three moderate-sized silver wire sutures were then passed through the whole thickness of the uterine walls and temporarily tightened.

In the meantime continuous pressure had been kept on the fundus and the hot pads were frequently changed. But in spite of this the uterus was slow in contracting, and two hypodermic injections of ergotine of $\text{m} \cdot \text{v}$ each were given. Six moderate sized silk ligatures were passed through the superficial part of the uterine wall, and after they had been tied the bleeding became much less. Before the lowest suture was tied the uterine cavity was washed out (through the wound) with sterilised water at 120°.

The Fallopian tubes were tightly ligatured with fine silk towards their distal extremity. The small fibroid above mentioned being very vascular, was cut off, and the edges of the stump sewn together by a continuous silk ligature. The uterus was now well contracted and all hæmorrhage had ceased.

A few large clots were removed from the peritoneal cavity, and the abdominal walls sewn together with about twenty fishing-gut sutures. After-history.—Convalescence proceeded without a single adverse symptom. Sickness was very slight and transient. No rise of temperature. Bowels opened on third day, after an enema and *Haustus albus*. Wound dressed on the eighth day, and stitches removed. It had completely healed, except at the lower extremity, where the skin had been a little inverted.

Child was a boy. Measurements taken the day after the operation:—Length 20 inches; weight 7½ lbs.; circumference of head 14½ inches, biparietal 4 inches, suboccipito-frontal 4½ inches, vertico-mental 5½ inches.

It took the breast for about a week, but this had to be supplemented by sterilized milk, and then the mother's milk ceased and the child was fed on milk and Mellin's food. Weighed 8½ lbs. on leaving the hospital.

March 19th.—Mother and child discharged quite well.

Uncommon Causes of Skin Irritation.

By HENRY RUNDLE, F.R.C.S.



HE communication by Mr. W. T. Freeman in the *St. Bartholomew's Hospital Journal* of March on the above is of much interest. I can confirm his statements as to the effect produced on some people by contact with the leaves of the *Primula obconica*, having had two such cases under my care. These were ladies, in perfect health and hitherto free from skin trouble of any kind, who, after potting some primulas, found that their hands began to tingle and feel uncomfortable, then became rough and reddened, and afterwards presented an appearance allied to eczema; in one case the face was affected. A weak lotion of tar gave much relief. Recently, when going through the greenhouse of my friend Dr. Kyffin, at Forton, he told me that he had personally suffered from irritation of the hands caused by handling the *Primula obconica*, and since then he had always worn gloves when potting this plant. He has communicated to me the case of a gardener, who on different occasions had considerable swelling and irritation of the hands and arms, and his face also was affected. The man stated that each time the attack occurred he had been handling the *Primula obconica*.

I think that this form of skin trouble is not rare; occasional reference has been made to it in the *Field*, and I learn on inquiry from Messrs. Sutton, the well-known seed merchants of Reading, that the irritation caused by the leaves of the *Primula obconica* coming in contact with the skin is very common, but it does not affect all in the same manner, some of them never being troubled with it. Mr. Jonathan Hutchinson (*Archives of Surgery*, vol. iii, p. 149) believes that "eczematous dermatitis" may be set going by a great variety of causes,—external heat, irritation of clothing, &c. To these causes, I think, may now be added the leaves of the *Primula*

obconica, and this is probably the only one of the family that has the power to cause the eruption.

Notes.

THE KIRKES' SCHOLARSHIP AND GOLD MEDAL has been awarded to G. A. Auden.

IN THESE DAYS of the highly trained nurse, it seems strange that there should be any hospitals in civilised countries without properly trained nurses. It appears, however that this is the case, for the Secretary of State for India admitted in reply to Mr. Moon, the member for North St. Pancras, on March 19th last in the House of Commons, that several of the *garrison* hospitals in the East, notably at Aden, are without any staff of trained nurses.

Dr. EDKINS has been again appointed to lecture in Advanced Chemical Physiology. He will give his lectures on Thursdays at one o'clock during the coming Summer Session.

Dr. CALVERT has been re-appointed Demonstrator in *Materia Medica* and Practical Pharmacy. He will give a course of demonstrations on Wednesday at nine during the Summer Session. He will also hold a practical laboratory class on two days a week.

Dr. BOWMAN has been appointed Assistant Demonstrator in *Materia Medica* and Practical Pharmacy.

WE HEAR that Mr. J. W. W. Stephens has been re-elected to the Treasurer's Research Studentship for another year.

THE HARVEY PRIZE has been awarded to F. C. BOTTOW. Certificates of honour have been granted to W. S. Danks and L. A. Walker.

THE "SENIOR PRACTICAL" has been secured by H. BUTTOWS. F. C. BOTTOW is second, S. R. Scott third, C. S. Frost fourth, W. H. Leonard fifth, H. S. Thomas sixth, W. S. Danks seventh, and T. D. Haig eighth.

THE "JUNIOR PRACTICAL" has been gained by A. E. J. LISTER. A. T. Compton is second, C. A. S. Ridout third, S. R. Whittaker fourth, G. M. Seagrove fifth, J. S. Williamson sixth, J. C. Marshall and A. T. Pridham (equal) seventh, A. R. Tweedie ninth, and A. H. John tenth.

THE HICHENS PRIZE has been taken by F. R. Brooks.

THE SENIOR SCHOLARSHIP in Anatomy, Physiology and Chemistry has been awarded to H. A. Colwell.

THE JUNIOR SCHOLARSHIPS in Anatomy and Biology have been awarded to (1) R. H. Paramore, (2) A. R. Tweedie and J. S. Williamson (equal).

THE Finance Committee of the Amalgamated Clubs have decided to hold the Annual Dinner *always* on the first Saturday in June. The Past *v.* Present Cricket and Tennis matches are to be played on the same day.

THE Jacksonian Prize Essay for 1895 on "The Etiology and Treatment of Tetanus" has been written by Dr. Kanthack. We congratulate Dr. Kanthack heartily.

THE next course of Elementary and D.P.H. Bacteriology will begin early in May. Names to be sent to Dr. Shore as soon as possible.

THERE are a number of vacancies for clerks in the Pathological Department.

A SPECIAL COURSE in Operative Surgery for the Final Fellowship will commence on April 27th at 4.15. Names to be sent in to Morris as soon as possible.

WE HAVE received from Dr. Theo. Mailler Kendall, of Sydney, New South Wales, an old Bart.'s man, a very interesting report showing the good effect of sanitary legislation in decreasing the mortality from enteric fever in Sydney.

THE FINAL match for the Rugby Cup was played on the Richmond Athletic Ground on March 17th, when St. Thomas's beat St. George's by three tries to a goal—nine points to five. We most heartily congratulate St. George's on the good form they showed. Their try was obtained by Mr. H. N. Coltart, their captain.

BART'S MEN, old and present, will all be interested to hear that the Nursing Home at Gordon House, Holles Street, Cavendish Square, lately under the control of Mrs. Bedford Fenwick, has been taken over by Mrs. Launcelot Andrews (late Sister John) and Miss Bristow (Sister Martha) in joint partnership. We heartily wish the enterprise success, though when one thinks of the individuality of the two ladies concerned, one cannot for a moment doubt but that success must be an absolute certainty.

WE SHALL all be sorry to lose Sister Martha, and it will be long ere one will feel at home in Martha in her absence.

MR. T. HARRISON BUTLER, M.B., B.Ch.Oxon., has been elected to the Radcliffe Travelling Fellowship of the University of Oxford.

R. JAMES NORMAN VOGAN, aged 10 years, who is a candidate at the May Election for the Royal Medical Benevolent School, Epsom, is the son of James Norman Vogan, F.R.C.S. James Norman Vogan was House Surgeon and Assistant

Electrician at Bart.'s in 1884, and afterwards practised at Ipswich until his death in 1889. Votes are asked for his son, who is left quite unprovided for, his mother having died in 1887.

Proxies may be sent to Miss Vogan, 125, Lee Road, Blackheath, S.E.

Amalgamated Clubs.

ATHLETIC CLUB.

A GENERAL MEETING of the Athletic Club was held on Tuesday, March 17th, 1896. The following gentlemen were elected officers of the Club:

President.—A. A. Bowby, Esq., F.R.C.S.
Vice-Presidents.—H. M. Fletcher, J. A. Hayward, P. Furnivall, B. C. Green.

Hon. Secs.—G. W. Stoue, W. F. Deunett.
Captain.—S. Mason.

Committee.—P. W. James, W. N. Barron, A. Hay, J. Johnston, S. F. Smith, C. V. Corriah, J. W. Nunn.

CRICKET CLUB.

FIXTURES FOR 1896.

Saturday, May	2nd, Opening game	at Winchmore Hill.
Wednesday, "	6th, 1st XI <i>v.</i> Next XVI	" " "
Saturday, "	9th, Stoics	" " "
" "	16th, Barnet	" " "
Wednesday, "	20th, Richmond	" Richmond.
Thursday, "	28th, Crystal Palace	" Crystal Palace.
Saturday, "	30th, Kensington Park	" Kensington Park.
June	6th, Past <i>v.</i> Present	" Winchmore Hill.
Wednesday, "	10th, Streatham	" Streatham.
Saturday, "	13th, R.L.E.C.	" Cooper's Hill.
Wednesday, "	17th, Cheshunt	" Cheshunt.
Saturday, "	20th,	" "
Wednesday, "	24th, Ealing	" Ealing.
Saturday, "	27th, M.C.C.	" Winchmore Hill.
Saturday, July	4th, Henley-on-Thames	" Henley.
Wednesday, "	8th, Hornsey	" Winchmore Hill.
Saturday, "	11th, Nondescripts	" " "
" "	18th, P. E. Tuelott's XI	" Twyford.

CRICKET MATCH.

PAST *v.* PRESENT.

To be played on Saturday, June 6th, 1896. Will all old Bart.'s men who wish to play in this match kindly send their names to the Cricket Secretary as soon as possible?

Lawn Tennis Match.

PAST *v.* PRESENT.

To be played on Saturday, June 6th, 1896. Will all old Bart.'s men who would like to play in the above match communicate as soon as possible with the Hon. Sec. of the Lawn Tennis Club?

United Hospitals Boxing Competitions.

THE Competitions winding up this season was held at the headquarters of the 1st Middlesex R.V. in Davies Street, W. There was a good ring in the centre of the room, so that everyone present had a good view. The attendance was very fair. The first event:

LIGHT WEIGHTS (under 10 st.).—W. A. McEnery, Middlesex, beat C. W. Wingman, University; C. G. Meade, St. Bartholomew's, beat R. Cogan, Guy's. Meade showed very good form, and the final was looked forward to with interest, but unfortunately McEnery was disabled and could not enter the ring again, so Meade was declared the winner.

MIDDLE WEIGHTS (under 11 st. 4 lb.).—W. L. Griffiths, University, beat C. Kinsey Morgan, Guy's. G. R. Baker, Bartholomew's, sparring a bye with Prof. A. Bowman.

BANTAM WEIGHTS (under 8 st. 4 lb.).—W. M. Price, Guy's, was unable to appear, but had a very good substitute in L. Fern, who beat C. Rutledge, University. This was followed by some very good exhibition sparring by E. H. Perrin and V. N. Christy, then by the well-known W. J. King, ex-heavy weight amateur champion, and Prof. Bill Natty, and by F. S. B. Hollis and A. Vanderhout.

FEATHER WEIGHTS (under 9 st.).—F. W. Chandler, University, beat W. G. Graham, St. Bartholomew's. The former showed better form than his opponent, and the judges were divided as to their verdict. It was referred to Mr. Cox, who acted as referee, his decision being in favour of Chandler.

HEAVY WEIGHTS.—C. M. Rowe, University, beat J. C. S. Dunn, St. Bartholomew's. Rowe did most of the leading; Dunn ought to have commenced as he left off, as he was going fairly well and strong at the finish. Rowe was almost knocked out in the third round, but Dunn did not follow up his advantage.

FINAL MIDDLE WEIGHTS.—W. L. Griffiths, University, beat G. R. Baker, St. Bartholomew's. Baker was knocked out early in the second round.

Up to Date.

"Oh, doctor! I have come to you
To ease me of my pain;
I long to see the needle in
My foot come out again."

The wily surgeon straightway gets
His pot of Röntgen rays,
And on the plate so sensitive,
The tarry foot he lays.

In haste he seeks his darkened room,
Develops up the plate;
And, by the rays of X alone,
He sees his patient's state.

The needle now is soon withdrawn,
The patient pleased as he;
She glad to have the needle out,
And he to get his fee. K.

A Curious Epitaph.

A CORRESPONDENT has sent us the following epitaph which he has come across in the old churchyard at Stockbridge—

In memory of
John Bucket,
Many years landlord of the King's Head Inn
In this Borough,
Who departed this life Nov. 25, 1802,
Aged 67 years.

And is, alas! poor Bucket gone?
Farewell convivial honest John,
Oft at the well by fatal stroke,
Buckets like pitchers must be broke.
In this same motley shifting scene
How various have thy fortunes been!
Now lifted high; now sinking low,
To-day thy brim would overflow,
Thy bounty then would all supply
To fill and drink and leave thee dry,
To-morrow sunk as in a well,
Content unseen with truth to dwell.

But high or low or wet or dry,
No rotten stave could mallice spy.
Then rise, immortal Bucket, rise,
And claim thy station in the skies,
'Twixt Amphora and Pisces shine,
Still guarding Stockbridge with thy sign.

Round the Mountain.

By LINCOLN CRANBORN.

THEY were talking in the Square, the Fresher, the Chronic, and the Enthusiast, who being by nature utterly opposed were by instinct the greatest of friends, which is another proof that instinct is frequently antagonistic to nature,—of that, however, another time.

"The subject of dress," remarked the Fresher, "is of great interest to many people."

"You notice it most in the Cambridge man," added the Chronic.

"I would divide it into four heads," explained the Enthusiast: "The man who can't dress—the man who can dress—the man who won't dress—and the man who is too poor to dress."

"The first division," said the Chronic, "is the largest of the four."

"And contains the cleverest men," sighed the Enthusiast, who wore a turn-down collar.

"Not to mention the most objectionable," said the Fresher, who parted his hair in the middle.

"Many years ago," began the Chronic, "a long time before students were confused with cabmen—"

"You are referring to the shelters?" interrupted the Fresher.

"I am," replied the Chronic, looking pained, and proceeding, "before that time dress was to the student as sarcosin to a physician, little understood—"

"You think we are being educated?" demanded the Enthusiast, with a sneer, "for my part I think dress, as such, wholly unworthy of consideration."

"You will lose an appointment," remarked the Chronic.

"Not being understood it was entirely ignored, with the result that its laws are even now but imperfectly followed. But let us take some examples: That man over there in black tails and a bowler is an insult to the æsthetic—"

"I have noticed they go with piety and self-satisfaction," murmured the Fresher.

"And the lowest seats in the theatre," added the Enthusiast, not a bit abashed.

"I think," went on the Chronic, "that brown boots and a top-hat are bad form—"

"Form is purely comparative," said the Enthusiast.

"The worst of comparisons is the unpleasantness of their truths," remarked the Fresher.

"The superiority of the Cambridge man lies in his dress"—continued the Chronic.

"And in his running," exclaimed the Fresher, who adored the merely animal.

"The intense style I regret is becoming prevalent; I mean long hair, a vacant look, and gold eye-glasses; it denotes a craving for distinction which is most unhealthy in the young mind."

"Which is the most objectionable, an opera hat or a cap?" inquired the Enthusiast.

"Or the man that wears them?" put in the Fresher.

"You seem to think that dress is necessarily frivolous," remarked the Chronic with great severity.

"But erudite works have been written about it, notably Sartor Resartus; it is besides of peculiar significance to the practitioner and a yellow coat—"

"And a button-hole," suggested the Fresher, who noticed the allusion.

"—are emblematic of book-makers and Peckham Rye, while a frock coat as invariably signifies an exam., or an aunt in town."

"Why shouldn't a man dress as he likes?" asked the Enthusiast.

"He does," replied the Chronic, "and the results are disastrous. But let us go to lunch."



Scene in the Surgery.

DRESSER (*loy.*).—Well, my good woman, what can I do for you?
PATIENT.—Just run and fetch us a doctor, there's a good boy.

Notes from the Wards.

House Physician going his night round, addressing Patient, newly admitted

H.P. Well, how do you feel now?
Patient. Ever so much better, thankye sir, since I had the gas.
H.P. The gas?
Patient. Yes, sir, nurse gave it me in a tube under my arm.

[Did he mean the thermometer?]

Cases of Special Interest.

Medical.

Mark, bed 4.—Pernicious anæmia.
Mark, bed 26.—Locomotor ataxia.
Matthew, bed 1.—Paralysis agitans.
Matthew, bed 9.—Pernicious anæmia.
Colston, bed 15.—Exophthalmic goitre in a man.
Colston, bed 19.—Enlarged spleen.
Rahce, bed 9.—Aneurysm of arch of aorta.
Rahce, bed 19.—Aortic and mitral disease.
Hope, bed 2.—Rheumatoid arthritis.
Hope, bed 11.—Fibrosis of lung.
Faith, bed 10.—Aphasia.
Faith, bed 21.—Hemiplegia.
John, bed 4.—Alcoholic neuritis.
John, bed 5.—Anorexia nervosa.
John, bed 9.—Cerebral embolism.

Junior Staff Appointments.

The following appointments have been made:

HOUSE PHYSICIANS TO—	
SENIOR.	JUNIOR.
Dr. Church G. R. Fox, M.R.C.S., L.R.C.P.	A. Woodward, M.R.C.S., L.R.C.P.
Dr. Gee F. C. Poynder, M.D. (Oxon.)	S. Gillics, M.B. (Lond.)
Sir D. Duckworth ... R. Michell, M.B., D.C. (Cantab.), F.R.C.S.	R. H. Crowley, M.D. (Lond.)
Dr. Hensley F. M. Burnett, M.D. (Lond.)	W. E. N. Dunn, M.R.C.S., L.R.C.P.
Dr. Downton D. W. Collings, M.B. (Lond.)	C. E. Hodges, M.B., B.C. (Cantab.)
HOUSE SURGEONS TO—	
SENIOR.	JUNIOR.
Mr. Smith S. Cornish, M.R.C.S., L.R.C.P.	G. V. Worthington, M.B., B.C. (Cantab.)
Mr. Willett L. Giles, M.A., M.B. (Cantab.)	E. W. Ormerod, M.B., B.C. (Cantab.)
Mr. Langton C. M. Hewer, M.R.C.S., L.R.C.P.	T. F. Legg, M.R.C.S., L.R.C.P.
Mr. Marsh H. Marshall, M.B., D.C. (Cantab.)	F. W. Robertson, M.R.C.S., L.R.C.P.
Mr. Duttin W. G. Clark, M.B., B.C.	T. H. Butler, M.B., B.Ch. (Oxon.)
INTERN MIDWIFERY ASSISTANT.—P. Belben, M.A., M.B., B.C. (Cantab.), F.R.C.S.	
EXTERN MIDWIFERY ASSISTANT.—W. E. Lee, M.B. (Lond.)	
CHILD-BIRTH.—Senior: H. J. Paterson, M.A., M.B., B.C. (Cantab.)	
Junior: F. H. Lewis, M.A., M.B., B.C. (Cantab.)	
OPHTHALMIC HOUSE SURGEON.—M. G. Pearson, M.R.C.S., L.R.C.P.	

Appointments.

WHITTING, H. T. M., M.B., B.S. (Durh.), L.R.C.P. (Lond.), M.R.C.S., has been appointed Medical Officer for the Third Sanitary District of the Market Harborough Union.

ANDREWS, H. A., M.R.C.S., L.R.C.P., has been appointed House Surgeon to the Hull Infirmary.

HOUNSFIELD, S. C., M.R.C.S. Eng., L.R.C.P. (Lond.), appointed Second House Surgeon to the East Suffolk Hospital, Ipswich.

JONES, W. BLACK, M.D., B.S. (Lond.), appointed Resident Physician at the Bathing Establishment at Llannangmarch Wells, Central Wales.

LAMPLOUGH, C., M.R.C.S. Eng., L.R.C.P. (Lond.), appointed House Physician, City of London Hospital for Diseases of the Chest, Victoria Park.

MEAD, G. B. O., L.R.C.P. (Edin.), M.R.C.S. Eng., has been re-appointed Medical Officer by the Newmarket Urban District Council.

WIGHTMAN, C. FRANK, F.R.C.S. Eng., appointed Senior House Surgeon to the Bolton Infirmary.

THORNE-THORNE, BERTHOLD B., M.D. (Durham), B.S., M.R.C.S., has been appointed Honorary Physician to Saint Peter's Convalescent Home, Woking.

SANTI, PHILIP R. W. de, F.R.C.S., appointed Assistant Surgeon (vice C. Stonham) and Aural Surgeon to the Westminster Hospital.

Examinations.

FINAL L.S.A.—W. B. Welch having completed this examination has been granted the diploma of L.S.A.

SOCIETY OF APOTHECARIES, PRIMARY EXAMINATION.—*Anatomy and Physiology*: T. B. Haig, R. Storrs, L. E. Whitaker, E. D. Wortley, T. L. Wyndham. *Anatomy*: R. F. Ellery, A. Farrington. *Physiology*: H. D. Everington, E. W. Lowry, J. H. Rhodes.

New Productions.

MESSRS. BURROUGHS, WELLCOME & Co. have supplied us with samples of their tablets for the preparation of solutions to be used in the method of Dr. C. L. Schleich of Berlin for the production of local anaesthesia by infiltration. These tablets overcome the tendency of anæsthetic solutions to decompose; they are prepared in three strengths, and produce respectively the "strong," "normal," and "weak" solutions when dissolved in 100 minims of water. Each tablet contains Morph. Hydrochlor. gr. $\frac{1}{10}$, Sod. Chlor. gr. $\frac{1}{2}$, and Cocain. Hydrochlor. elidit. gr. $\frac{1}{10}$, in accordance with the strength.

A NEW HUNGARIAN APERIENT WATER.—The Apollinaris Company, of 4, Stratford Place, have sent us specimens of the new Hunyadi Water which they are introducing under the name of "Apenta." It is a natural water, obtained from the Uj Hunyadi springs near Buda-Pesth.

The chemical composition of the water, according to the analysis of Professor L. Liebermann, Director of the Royal Hungarian State Chemical Institute in the Ministry of Agriculture, Buda-Pesth, is as follows:

Sulphate of soda	15.4320
Sulphate of magnesia	24.4963
Sulphate of lime	1.0999
Chloride of sodium	1.8720
Dicarbonate of lime	0.8843
Bicarbonate of protoxide of iron	0.0189
Silicic acid	0.0100

Besides these constituents, the water contains traces of lithium and potassium. The specific gravity, at 15° C., amounts to 1.0414. Professor Liebermann states that "in view of the fact that both the quantity of the solid constituents and also their relative proportions in the bitter water Uj Hunyadi corresponds generally to the proportions found also in other Offen bitter waters—for instance, in Hunyadi Janos—the same considerations are guiding, from a medicinal point of view, in forming an opinion of water of the Uj Hunyadi springs. What is striking in the Uj Hunyadi water is the proportion between the sulphate of soda and the sulphate of magnesia, which is favourable for a bitter water. The quantity of the latter is the greater. According to all this, I do not hesitate to declare that I know of no stronger or more favourably constituted natural bitter water than the natural bitter water Uj Hunyadi." We think Apenta will constitute a serious rival to other natural aperient waters. It is agreeable to the taste, and while its prolonged use appears to produce no injurious effects it is an efficacious aperient.

Correspondence.

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

THE RUGBY FOOTBALL TEAM.

DEAR SIR,—Your last number contains a letter signed by "Rugger" which I think will produce a wrong impression in the Hospital, and lead men to think that the Rugby Football Club is still in the bad state it was three years ago.

If "Rugger" will look up our record for the last four years he will observe the following facts:

After being beaten by Guy's in 1893 by over 20 points, and by Thomas's in 1894 by a somewhat similar total, in 1895 we played a drawn game with Thomas's, and that with our full-back away. In the replayed tie we lost by 11 points, but five of our team had, or were recovering from, influenza, and two actually had temperatures of over 102° one hour before the match—I wonder if "Rugger" would play under similar conditions!

This season we have played better matches than usual, and have won more of them. I believe it is the first time for some years that we have beaten R.M.C., and in the Cup Ties we beat Guy's easily, but lost to Thomas's by 6 points. On that day our men did not play up to form, and surely "Rugger" knows that every team has its off-day. I think that "Rugger" will allow that the team has much improved lately.

Now as to "Rugger's" four heads:

a. Granted we have a frightful apology for a second XV, whose fault is it but men of the "Rugger" type, who can play but won't?
b. Men out of their year are usually qualified (I hope "Rugger" is) or nearly so, and have no time for football. Besides, they are useless to us for Cup Ties.

c. Any new man who comes up with a reputation is at once tackled by the secretary or captain—thanks to Dr. Shore, who always lets us know of such men.

d. Our fixture card is not much worse than that of Thomas's. We play many of the same clubs, and usually give them quite as good a game as Thomas's do. Further, every year improves our card, thanks to the improved team and energy of our secretary.

Next "Rugger" complains of our back division. It is our misfortune, not our fault, that our back division is weak. Had not accident robbed us of our crack half-back, the result of the Thomas's match might have been different.

In conclusion let me state that it is men like "Rugger" who harm football at Bart's. Their one idea is to run down the men who are doing their best for the team, and whose efforts are at length meeting with some success. We can do no right, according to them, and from personal experience I know that it is hard enough to keep a XV together without being gumbled at by a set of ignoramuses like "Rugger." If "Rugger" has only heard the remarks about his

letter that I have, he will for the future leave things alone that he knows nothing about.

If "Rugger" answers this letter, as I hope he will, will he have the spirit to sign his name and let us know who our mistaken friend is?—Yours, &c., P. O. ANDREW.

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

MIDWIVES AND THE REMOVAL OF THE PLACENTA.

SIR,—May I, in the interest of midwives, be allowed to comment on the article in your last issue by Dr. Coles. Dr. Coles, in reporting a case of inversion of the uterus, says, "I believe that midwives always remove the afterbirth by pulling." It appears to me that this is a charge against midwives of as grave a nature as it is possible to make, and that it is only right in their interests to refute it. I hope Dr. Coles will believe my assurance that midwives do not always remove the afterbirth by pulling. For one do not, neither, I am sure, do any of the pupils of S. John's Maternity Home where I received my training; indeed, I have yet to learn of the training school which instructs its pupils to remove the placenta by traction on the cord.

It would be interesting to know what were the qualifications of the person who attended the case in question, for the name of midwife. That a properly qualified midwife should leave the patient for half an hour or more to wash the baby, while the placenta remained unexpelled, appears incredible; that she should delicately assist her patient out of bed the day after confinement seems still more so. I venture to think that if this person's right to the name of midwife were inquired into, it would be found that she belonged to that class of people who put a card "Midwife" in the window when other work fails, and whose single qualification is that they are "charwomen who are not busy." If this be so, it only points the moral that some legislation on this subject is urgently needed, for it is intolerable that women who have honestly undergone a severe and expensive training in order to qualify themselves for the work which they profess to be able to do, should be confounded with the absolutely ignorant, not only by the general public, but even by medical men themselves. That such legislation should include a clause requiring all who henceforth aspire to qualify as midwives, to produce a certificate of general training, is, I think, a necessity if it is to be established on a satisfactory basis.

From a midwife's point of view, perhaps I may say in answer to the questions put to and by Dr. Coles—

1. That the inversion was in all probability due, as he says, to traction on the cord, that probably this was at first incomplete, as from the sudden urgent symptoms it would appear that further inversion took place when the patient got out of bed, and certainly this fact, combined with the bearing-down movement made in the effort to pass water, would be quite enough to account for complete inversion.

2. For the fact that inversion can occur spontaneously I believe Dr. Galabin is responsible.

3. One is always taught that it can be caused by unskilful expression, and no doubt this is the case, though I am able to say that during the time I was responsible for the management of S. John's Maternity Home, Battersea, and either saw or had reported to me some 1600 or more cases, there was not numbered amongst them one of inversion of the uterus.

4. The inversion should probably have been detected at the time, but a person who would leave a uterus which still contained a placenta while she washed the baby, would not be likely to ascertain before she left the case that the uterus was contracted and of normal shape.

For the sake of those midwives who care for and know something about their work, I hope you will be good enough to insert this letter in your JOURNAL.—I am, Sir, yours faithfully, MARGARET DRAY, Cert. St. Bartholomew's Hospital; Certified Midwife, L.O.S. Diplômée.

S. JOHN'S HOUSE, NORFOLK STREET, STRAND,
March 31st, 1896.

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

MIDWIVES AND THE REMOVAL OF THE PLACENTA.

SIR.—After reading Dr. Coles' notes on "Two Obstetric Cases of Interest," it struck me that the following case might be of use in finding an answer to the questions enumerated. A year or two ago I received an urgent message, "as the midwife could not get the afterbirth away, and would I come at once." On entering the room I found the patient pulseless and apparently unconscious. Seeing no time was to be lost, I ordered some brandy to be poured down her throat, while I, on examination, found a large bleeding mass pro-

truding from the vagina. Seeing at a glance that the uterus was inverted, and that the bulk of the placenta still adhered to it, I carefully tore off the latter, and grasping the uterus in my hand pushed my whole fist gently but firmly up into the pelvis. A distinct jerk was felt as the uterus returned to its normal position. Efforts were then made to restore animation, and the patient gradually rallied and made an excellent and speedy recovery. The diagnosis was easily made, although the funis had been pulled off the placenta by the efforts of the midwife. The wonder is these cases do not occur more frequently, as it is a very common practice for midwives not only to pull on the funis but to make the patient sit over hot water at the same time! I should like to see the questions answered by some one "with authority," but it is my humble opinion that the position of the uterus in the pelvis as well as the condition of the patient are important factors. In my case the patient was a languid, anemic, relaxed sort of person, and the uterus lay low down in the pelvis with its axis more in the axis of the outlet than in its normal position.—Yours truly, ALEXANDER BOSWELL, Ashbourne.

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

CAISSON DISEASE.

DEAR SIR,—Dr. Maidlow's article in the last number of the JOURNAL is a specially interesting one to me, and I consider his remarks lend further weight to the argument that the symptoms of aeronauts and of caisson disease are due to the same cause, viz. the mechanical effect of rapidly reduced atmospheric pressure, and that in no sense are the two diseases comparable to *mal de montagne*.

Dr. Maidlow says that I do not directly describe aeronautic sickness. I certainly meant to convey in my remarks the impression that the symptoms of caisson disease and of aeronauts are precisely similar, and therefore I placed them under the same heading.

I am inclined to regard any symptoms appearing beyond 170 or 190 feet as due to the mechanical pressure on the surface and organs of the body, which must, of course, make itself felt after a certain time, however gradually the pressure be increased. Gradually diminished atmospheric pressure *alone* can never produce symptoms. As regards the cause and pathology of caisson disease, one of the best papers, I think, on the subject is that of Dr. Howard von Reusslaer, in the *Transactions of the Medical Society of New York for 1891*, where he gives the pathology as "Congestion and consequent malnutrition of all the organs, and especially of the spinal cord (myelitis)." He does not actually mention hemorrhages as occurring, but it is evident this is merely a stage further in the pathological condition.

I am, sir, yours faithfully, MARCOLM L. HEPBURN.

LOWESTOFT, March 30th, 1896.

Reviews.

LEWIS'S NURSING CHART (H. K. Lewis) is designed for nurses' use, and places upon it are arranged for all the various observations that a nurse is expected to make in a case. They will certainly be found of great use by all nurses, but we question whether they will not tend to do away with those charming and most artistic productions in red and black ink which nurses told off to "special" duty delight so in preparing. In private nursing, where there is, as a rule, less time or opportunity for artistic effect, these charts will, we believe, be an unmixed advantage.

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. Kanthack, 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 for at a special rate. If a mounted specimen is desired an extra charge of 1s. will be made. If	

a telegraphic report is 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 E. H. Shaw, 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.

Births.

CROPPER.—On April 1st, at Syston House, Boscombe, Bournemouth, the wife of John Cropper, M.A., M.B., B.C. Cantab., of a daughter.

NASH.—On March 10th, at St. Peter's, Bedford, the wife of W. Gifford Nash, F.R.C.S., of a daughter.

Marriages.

PINCHAM—GIBBON.—On April 8th, at St. Mary's, Hornsey Rise, N., Ernest C. Pincham, M.R.C.S. Eng., L.R.C.P. Lond., only son of James Pincham, M.Inst.C.E., of Hobart, Tasmania, to Blanche, youngest daughter of the late Richard Gibbon, of Shanghai.

BOKENHAM—MAYO.—On April 8th, at the Parish Church, Cheshunt, by the Rev. F. Fox Lambert, Vicar of the Parish, assisted by the Rev. C. Bokenham, Vicar of Selhurst and uncle of the bridegroom, Thomas Jessopp Bokenham, M.R.C.S., L.R.C.P., of 10, Devonshire Street, Portland Place, W., son of T. C. Bokenham, Assistant Controller of Stamps, Somerset House, to Edith, eldest daughter of the late Charles W. Mayo and Mrs. Mayo, of Colegrove, Cheshunt, Herts.

SHUTER—TIPPETT.—On Wednesday, 25th March, at the Parish Church, Chiswick, by the Rev. L. W. T. Dale, George Percy Shuter, M.A., M.B., B.C. Cantab., D.P.H., of Oaklands, Chiswick Lane, W., to Ellen Francis Tippett, of Cleveland House, Chiswick, second daughter of G. F. Tippett, of Bromley.

SMITH—BINDLOSS.—On April 8th, at Christ Church, Brondesbury, by the Rev. A. Scott, Vicar of St. Mary's, Paddington, J. Anderson Smith, M.D. Lond., eldest son of T. R. Smith, Esq., of Hull, to Amy Helen Maul, younger daughter of the late Rev. Edward Bindloss, of Archangel.

REID—MAWER.—On the 11th April, at Unity Hall, Wood Green, by the Rev. Dr. Mummer, Arthur Lestock Reid, M.R.C.S., L.R.C.P., to Leila Ada, eldest daughter of W. Mawer, of Southgate, Middlesex.

Death.

THORNE.—On April 7th, at Cannes, Annette Maud, only daughter of William Bezly and Annette Mary Thorne, of 53, Upper Brook Street, London.

BART'S MEN are specially asked to notice the fixture of the first Saturday in June for the Annual Dinner and Past & Present Cricket and Tennis Matches.

ACKNOWLEDGMENTS.—Cuy's Hospital Gazette, St. George's Hospital Gazette, St. Thomas's Hospital Gazette, St. Mary's Hospital Gazette, The Nursing Record, The Charity Record.

St. Bartholomew's Hospital



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MAY, 1896.

[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. DOOTY, Advertisement Cameraman and Collector, 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, 1896.

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

ALL Bart's men, both past and present, will, we have no doubt, find many points of interest in the Treasurer's speech at the View Day Dinner. The Treasurer's speech is naturally the important speech of the evening, and is always of particular interest, because it includes not only a brief picture of the last year's work, but also a rough foreshadowing of the events in the near future. It is now some time since a formal representation was made to the Governors, to the effect that our Junior Staff were not treated as it became so great a hospital as our own to treat its residents. Many were the expressions of opinion as to what the ultimate effect would be, and there were not a few pessimists who loudly shouted their views that no good results would be forthcoming from the representation. Ultimately a few meagre hints and rumours leaked out, and the knowing

ones said that the question would probably be dealt with in the Treasurer's speech at the View Day Dinner. The question was dealt with, as will be seen by the report of the Dinner in another part of the issue, and Sir Trevor's announcement of the decision of the Governors was received with considerable applause and satisfaction. There is no doubt that the decision of the Governors is an eminently proper one, and one can only wonder why the old condition of things has been allowed to exist so long.

We have lately held, and shall continue to hold till October 1st next, the anomalous position of the richest hospital in London, and yet the only hospital in London where the Resident Staff are obliged to pay for their board. We heard recently that a well-known hospital in London whose finances were in a somewhat unsatisfactory state, had decided to cease boarding their Residents because, as they said, "Bart's do not board their Residents, so why should we?" We are complimented by the determination of our friends to take us as their example, but we trust that they will continue to follow our example, or, as perhaps we should say, remain as they were, and lay the flattering unction to their souls that we have followed their example. Glad as we are to take the lead, we should not remember with any pleasure that we had set so unfortunate an example. In this instance, we must be satisfied that the change has occurred at all, and we must not grumble even though we are the last London hospital to take the plunge.

It is within the memory of many of us, that excellent men, well qualified, and likely to make good House Surgeons—which is quite another story—have been prevented from becoming members of the Junior Staff only because they could not afford the addition of another unproductive, and withal very expensive year to their already expensive Medical Education. This unhappy state of affairs can no longer obtain. We are heartily glad of it, and in the name of all present and future Bart's men we tender our sincere thanks to all those who have shared in bringing about this most wise and popular reform. We most heartily endorse Sir Trevor's remarks in regard to the importance of making whatever change may be decided upon, a change that will

give complete satisfaction to everyone, and we have little doubt that the attention of the authorities having been once drawn to the Junior Staff, it will not be withdrawn until the scheme is seen to be in working order and to be giving complete satisfaction to all concerned.

On the Treatment of Serous Pleurisy by Paracentesis.

By SAMUEL WEST, M.D.

(Continued from p. 101.)

Indications for the Stopping of Paracentesis before the Complete Removal of the Fluid.

The indications are mainly these,—pain, cough, general distress and faintness, change in the character of the fluid withdrawn, and dyspnoea. These symptoms are most likely to arise when the fluid has been removed rapidly, and especially if the aspirator be used with too much suction, still, they may occur in any case and with every precaution.

1. *Pain.*—This is usually felt after the fluid has been flowing for a short time, commonly beneath the upper part of the sternum, under the clavicle, or in the shoulder, and occasionally underneath the lower part of the sternum or in the precordial region. It is evidently often severe, for the patient may become very restless with it or even feel faint, and the pulse may become unsteady.

Under such circumstances the flow of fluid should be stopped for a time, and a little brandy given. When the patient has recovered, the flow of fluid may be started again. Sometimes a good deal more fluid may be removed before pain is again experienced, but usually the pain increases directly the flow of fluid recommences, and soon becomes so severe that the operation has to be stopped.

No doubt, in most cases, the pain is due to the stretching of adhesions, which may even be felt by the patient to snap. As soon as the operation is over the pain usually ceases. It may last sometimes for an hour or two, and may then be relieved by a little stimulant and a few minims of opium, or by strapping the side firmly.

2. *Cough* is sometimes very troublesome, and is perhaps the commonest cause of the stopping of the operation. It is dry, short, frequent, painful, and sometimes almost paroxysmal. It usually commences after a certain amount of the fluid has been withdrawn, and becomes worse if the withdrawal of fluid is continued.

It may be due to the irritation of the lung, as it expands, by the annula, and will then diminish if the needle be slightly drawn out: this measure at any rate should be tried before the operation is stopped. But it is often to be attributed rather to irritation in the lung, consequent on its re-expansion, and to the alteration of the circulation through it.

If the cough be very severe, and if it continue after the needle is removed, a little tincture of opium should be given on the tongue and the side firmly strapped for a few hours.

3. *General distress.*—Sometimes, without either pain or cough, the patient complains of great general discomfort and alarm, and passes into an emotional, almost hysterical, condition, and soon begs that the operation may be stopped, saying that he cannot endure it any longer. Yet the attacks are not hysterical, for in nervous, emotional patients, who dread the operation, the excitement is present before the operation is commenced, and generally ceases as soon as the needle has passed and the fluid flows; whereas, in the cases we are speaking of the condition comes on after the fluid has been flowing for some time, and often in patients who have had no dread of the operation and are phlegmatic rather than nervous, excitable persons. The attacks are very like what are seen in certain cardiac conditions, and they may very likely be of cardiac origin, consequent on the disturbance of the circulation by the removal of the fluid from the pleura. At any rate, they have a real basis and may prove of considerable gravity if disregarded. It is best at once to stop the flow of fluid, and if the symptoms do not pass off quickly, to terminate the operation.

4. Change in the character of the fluid.

(a) The fluid may become blood-stained. This is due usually to the rupture of some vascular adhesion, or to the tearing of vascular

vegetations on the surface of the lung. It is usually developed towards the end of paracentesis. It is rarely more in amount than to stain the fluid red, the color being bright red, like that of recent blood, not dark, as in those cases where the fluid itself has been sometime hemorrhagic. In those rare cases in which the intercostal artery has been wounded with the needle, the hemorrhage might of course be copious.

In small amounts it is of no significance, and need not interfere with the completion of the paracentesis; but if it be more than a little, it is well to suspend the operation.

(b) *The passage of air with the fluid.*—This means that the lung has been ruptured, and should be an indication for stopping the operation at once, for although if the lung be healthy the mere entry of air into the pleura will do no harm, still if a cavity has been opened it may lead to the passage of the contents of this cavity into the pleura and the conversion of a simple serous effusion into an empyema by infection.

(5) *Dyspnoea.*—This sometimes sets in unexpectedly, and may quickly become considerable; but it is a rare complication.

If the patient complains that the breath feels short, the operation should be suspended for the time; the sensation then as a rule quickly passes off, and the operation may be completed. It is probably more subjective than real, and depends upon the alteration of the circulation through the lungs.

In some rare cases, dyspnoea may be considerable, and attended with some degree of cyanosis. The cause of this is often obscure, but it is sometimes connected with another rare and remarkable occurrence during paracentesis, viz. albuminous excretion.

Albuminous or serous excretion.—It sometimes happens that during the paracentesis the patient begins to cough and complain of some shortness of breath, and soon after to expectorate a quantity of clear, frothy fluid. The cough is almost constant, though not very violent or paroxysmal, and with it there is some shortness of breath and occasionally even considerable dyspnoea. Wheezing and crepitation are heard over the lung, usually over the affected side only, but occasionally on both.

After the symptoms have lasted for an hour or two, or perhaps a little longer, they generally subside and the case runs its ordinary course. The condition is probably to be attributed to acute oedema of the lung, and when fatal is probably associated with some organic disease of the lung or some lesion in the pulmonary vessels, e.g. thrombosis of the pulmonary artery or vein.

Albuminous excretion is really very rare. Terillon collected twenty-one cases, chiefly of French origin. Since that time isolated cases have been recorded, but the total number is still quite small, probably under fifty. The figures often quoted give a quite erroneous idea of the real frequency of the affection.

Sudden death in connection with paracentesis.

This is the rarest of all occurrences in pleuritic effusion. If one can judge from recorded cases, it is probably rarer now than it used to be in times past, because in the present day effusions are not allowed to remain so long or to reach so large a size without relief. It may occur at three different periods,—either immediately on the introduction of the needle, during the operation, or shortly after the operation is over. In the first case it is due to shock, and is similar to what is seen, e.g., in puncture of the abdomen. Instances of this very rare event are recorded by Besnier and also by Leichtenstern.

Sudden death during the operation, or after it, is to be referred, no doubt, to the same causes as lead to that event before the effusion has been tapped, or to those complications which have just been mentioned as the result of the paracentesis, viz. oedema of the lung and albuminous excretion.

Physical signs after Paracentesis.

Usually, as the fluid is removed, the lung expands and the organs return to their normal places. Breath and voice sounds become audible in parts where they were absent before, and frequently friction is heard and may be felt, showing that the lung has reached the chest walls and that the two layers of the pleura are actually in contact.

Friction is most frequently heard in the upper part of the chest, or at any rate not in the lowest. It may be audible over nearly the whole side. Usually it disappears in time, as the two layers of the pleura become adherent, but it may continue a long time. I have heard it nine months after paracentesis as plainly and as extensively as at first.

With the return of breath sounds, wheezing and crepitation are also heard, and are no doubt due, in most cases, to some exudation of fluid into the air tubes. The crepitation may be the result of the opening out of the collapsed air-vesicles, and is then not easy to

distinguish from some forms of pleuritic friction. In either case these physical signs quickly pass off.

The percussion over the upper parts of the chest often becomes markedly tympanitic, so as to suggest the occurrence of pneumothorax, but as the voice and breath sounds are audible, and often in addition crepitation and wheezing are heard, while the more characteristic signs of pneumothorax are absent, it is clear that the tympanitic resonance is connected with the expansion of the lung, and is to be explained, I believe—in the same way as that met with above a pleural effusion or a pneumonic lung—as due to the loss of elastic tone or tension of the lung, the nutrition of which has been impaired by being for some time collapsed.

This hyper-resonance after paracentesis is generally met with in the upper part of the chest in front, but it may occur elsewhere,—for instance, I have seen it behind at the angle of the scapula. It usually passes away in a few hours or so, but it may persist for two or three days. With this hyper-resonance is sometimes associated great exaggeration of the breath sounds, so that they may become bronchial or even amphoric. This, too, is a transitory phenomenon.

Pneumothorax after paracentesis has been already referred to. It is usually due to rupture of the lung, owing to excessive suction being employed with the aspirator. Sometimes, when the intrathoracic pressure is negative, the air may enter by the needle; for which reason it is wise, if the syphon be employed, that the mouth of the tube should be kept under water, but more commonly if air enters the thorax through the needle it is later, after a certain amount of fluid has been removed.

It has been stated that air may gain access through the skin puncture at the side of the needle. I do not think this is possible, and I certainly have never seen it.

The presence of air in the pleura after paracentesis has also been referred to the exhalation of gas from the fluid.

That the effusion contains much gas, which can be easily sucked out of it, is seen in the aspirator bottle while it is being exhausted. This, however, only occurs when the bottle already contains air, and does not happen if the mouth of the tube by which the exhaustion is being made is below the level of the fluid, or if the bottle be completely full of fluid.

In the same way in the pleura the exhalation of gas from the fluid implies the pre-existence of air already in the pleura, but it does not explain how that air got there.

The presence of air in the pleura is not in itself harmful so long as it is aseptic, for it is readily absorbed. The risk is that the air, in entering the pleura, may carry with it some infective organism and excite some fresh or different kind of inflammation. The source of infection is no doubt to be found in the tubes if they have not been properly cleaned and disinfected, and it is during its passage back through them that the air acquires its infective properties.

In certain cases disinfected air has been deliberately introduced into the pleura with the object of displacing the fluid and replacing it by air, which may be more readily absorbed.

The cases in which this procedure has been recommended are those in which the lung is bound down by adhesion, so that it cannot completely expand to fill the pleura, the space left becoming in consequence refilled with fluid almost as soon as it has been withdrawn. When used in this way the air should be passed through boiled water containing carbolic acid or some other antiseptic, and filtered through cotton-wool.

Experience does not, as a matter of fact, show any material advantage for this method of treatment over that of leaving the fluid there and performing paracentesis when necessary. Indeed the air is quickly absorbed and the fluid returns just as if no air had been introduced. At the same time, this is a method which might be rationally tried in obstinate cases.

Results of Paracentesis.

The results of paracentesis, when properly carried out, are almost always beneficial. In some cases recovery is very rapid, and a single paracentesis may be sufficient for cure.

Even the removal of quite a small portion of the fluid is often followed by the rapid absorption of the rest. Frequently the operation has to be repeated. No special rules can be laid down as to when and how often paracentesis should be performed, but speaking generally, the indications for its repetition are the same as those for the original operation, except that it is not necessary to wait so long.

There are, in my experience, no objections to repeated paracentesis, and though some writers set their authority against it, I cannot understand their reasons, now that the operation is so free from risk when properly performed.

Treatment by free Incision.

If paracentesis fail to cure an effusion, is there anything else that can be done? The only thing that remains is to lay the side freely open and to put in a drainage-tube,—in fact to treat it in the same way as an empyema. Whether this is a line of treatment which can be safely adopted will depend upon the nature of the particular case in question. It will of course be quite unavailing to any case where pleuritic effusion is secondary to some grave disease, as for instance advanced phthisis or mediastinal tumour, and it is practically restricted to cases which are, as far as can be estimated, of simple origin, or if of tubercular nature, to those in which there are no signs of progressive disease.

The objection of course is, that do what we will, it will be found practically impossible to prevent the serous effusion from being converted into an empyema, and although the risks of empyema may not be so great as we have been hitherto accustomed to regard them, still they are certainly greater than those of simple serous effusion. There are but very few cases recorded in which this method of treatment has been adopted. The following is the only case which has occurred within my own experience.

A young lady, aged 31, whose abdomen and right pleura had been full of fluid for more than twelve months, came under my care with the question as to whether anything could be done to relieve her. The fluid had been known to be present for some months, but paracentesis had never been performed, either of the pleura or the abdomen. The case was one evidently of tubercular origin, but there were no signs at the time of any progressive mischief, for although the patient was extremely thin and feeble, yet there was no elevation of temperature or night sweats, no cough or expectoration, nor anything to indicate the presence of phthisis.

The abdomen was tapped, and the fluid did not return. The pleura was tapped repeatedly, in all thirty-nine sittings in the course of twelve months. At the end of that time the side was laid freely open with the usual antiseptic precautions, and a drainage-tube inserted. The day after the operation the temperature rose, it became hectic and continued hectic for a considerable time.

A week or so after the operation, the fluid, which had hitherto been serous, became purulent, but the discharge was never copious, and the condition of the pleura, and it was feared that a fresh outbreak of general tuberculosis had occurred. For three months the patient remained in a very critical condition, but then began gradually to improve, the fluid ceased to be purulent, soon the discharge ceased, and the side was closed, the lung coming out completely, and no external deformity being left.

It is now more than two years ago, the chest still continues perfectly normal, and no fresh signs of any kind have developed, either in the lung or in the pleura, the recovery being, so far as the pleura goes, complete. I understand, however, that lately some fluid has returned in the abdomen, which has required paracentesis on one or two occasions, but in other respects the patient is well.

Shortly after the publication of this case, Dr. Morrison recorded a similar one which had been under his care in the year 1882. Of this case the following is a short summary.

A woman, aged 23, suffering from ovarian tumour, was found to have a right pleural effusion. The abdomen was tapped, but it filled again; the pleura was then tapped, in all six times at intervals of a few days, the quantities removed being twenty-five ounces on the first paracentesis, ninety on the second, and on the remainder twenty on each occasion. Then the side was opened, a drainage-tube inserted, and for five days after the operation the discharge was profuse, the temperature remaining at 100°, as it was before the operation. On the sixth day the discharge suddenly ceased, on the eighth day the tube was removed, and in fourteen days the side appeared to be perfectly well. A few days later ovariotomy was performed, but the patient never rallied from the operation. No post-mortem examination was made.

Recently an important paper has been read before the Clinical Society by Dr. Wilson upon three cases in which the pleura was incised for serous effusion within a few days of the onset of the disease. In the first two cases the patients were well after ten days. In the third case, which was complicated with influenza and pneumonia, the patient was almost moribund at the time of operation. For some weeks subsequently the temperature continued to rise at night, and some pus was discharged.

About three months later the wound, which had been allowed to close, was reopened, and about four ounces of pus escaped. Drainage was then effectually provided for, and in the end the patient completely recovered, after about nine months from the operation.

If the blood of such a case be examined several hours after the end of a febrile attack, there will be found numerous red corpuscles containing small ameboid unpigmented or slightly pigmented parasites—the small intracorpuscular forms I have already described. If the blood be again examined at intervals of a few hours it will be found that at each examination these endocorpuscular parasites are larger than at the one before. They are also more pigmented, and show gradually less and less ameboid movement, so that their outline becomes circular. The affected corpuscles become gradually swollen and paler. Just before the time at which the next attack is due, the parasites are nearly as large as normal corpuscles, and they begin to show certain changes—namely, an aggregation of the pigment into a mass near the centre, and gradual division of the rest of the cell-substance into a number of small, round, or oval bodies each with a well-marked retractile border and often showing near the centre a small bright dot. By the time these changes have become marked the febrile attack is beginning, and during the attack itself is seen the greater part of this process of division. When the small divisions, or as they must be considered, spores, are fully formed, the remnant of the blood-corpuscle breaks up, and the spores separate from one another and form the pigment and corpuscular debris. If another examination be made some hours later, there will be found again small hyaline ameboid bodies in the corpuscles and the process repeats itself.

So that in tertian fever we have a number of organisms in the blood in about the same stage of development, which, beginning as small intra-corpuscular bodies grow in and at the expense of the corpuscles which are themselves gradually destroyed, and at last when fully developed, i.e. about forty-eight hours after they first appear, break up into a number of small segments, which becoming free in the blood, attach themselves to fresh corpuscles and repeat the developmental cycle. And the period of segmentation coincides in a most regular manner with the attacks of pyrexia.

The account given by Golgi of the organisms in quartan fever is precisely analogous, but the life cycle is completed in three days instead of two, and there are certain morphological differences described between the two types of parasite. The chief are:—(1) At corresponding stages the quartan organism is rather smaller. (2) The infected corpuscles do not swell up and become pale, but remain natural in size and colour. (3) The pigment granules of the quartan parasite are larger and show less vigorous movement than those of the tertian. (4) The details of segmentation are rather different.—In quartan fever there are fewer spores formed, about eight or nine, while in tertian there are generally fifteen or sixteen, and the segmentation takes place in a very regular manner by formation of lines of division running radially from the centre to the periphery, so as to give rise to a form originally likened by Golgi to a daisy; in the tertian organism there is not formed a single ring of spores, but rather an irregular mass; the individual spores in quartan fever are larger, and show a more distinct central refractile dot. (5) Lastly, the development of the quartan organism takes place in seventy-two hours.

Except for these differences in detail, the quartan organism is similar to the tertian. It gradually develops after the febrile attack, and segments during the following attack exactly as does the tertian parasite. One may therefore ask with some justice whether the distinctions mentioned by Golgi are sufficient to allow us to speak of different species.

Golgi's explanation of the spring quotidian fevers is very ingenious. They depend upon infection with two generations of tertian parasites a day apart, or three generations of a quartan parasite, also a day apart.

That quotidians might really be double tertians has been known for a long time from clinical features, for, as is well known, the attacks two days apart may resemble one another, but differ in either severity, time of onset, or other features from those on the alternate days. And the study of the parasites in these cases gives very interesting results. The best account of these which I have come across is given in a monograph published this year by Thayer and Hewatson, giving an analysis of 600 cases in which they studied the parasite. They included 188 cases of double tertian infection.

In the great majority of these cases they clearly differentiated two groups of organisms in different stages of development. And they mention two exceedingly interesting facts bearing on this question. The first is that in quotidian cases with alternating attacks differing in severity, i.e. with a marked attack one day and a slight one the next, rest in bed may be enough to kill off one of the groups of organisms (the weaker of course), so that the subsequent fever is of the tertian type.

Secondly, it has been found that the maximum effect of quinine is

produced when administered just at the time of segmentation of the parasites, they being then more susceptible to its action than at other times. And so, if in a double tertian case a dose of quinine be given just before an attack, this may suffice to destroy the generation of organisms causing the attack while the half-developed group survive, the fever subsequently being of the tertian type.

So in all the spring intermittent fevers we have to deal with precisely analogous organisms, undergoing the same developmental changes.

In the more serious malarial fevers—those which occur in the more markedly malarious districts, especially in the tropics,—there are difficulties in the study of the parasites which do not exist in the case of the spring agues. These fevers, though often showing more or less marked intermission or remission at the commencement tend soon to lose this recurrent character, so that a complicated more or less irregular fever results. And the malignancy of the infection often leads to marked special symptoms, such, for instance, as coma; and just as these facts have led to great confusion clinically so they render the tracing of the life history of their parasites a very difficult matter. And it is to be remembered that in most of the worst malarial districts no systematic study of the disease has been carried out.

In parts of Europe, especially Italy and in America, these more serious fevers have lately been studied in considerable detail, and to the whole group the name of *summer-autumn fevers* has been given.

It was Marchiafava who first applied Golgi's work on the intermittent fevers to these summer-autumn fevers, and he described two types of parasite—a *quotidian* which completed its life cycle in twenty-four hours, and gave rise to daily paroxysms (which therefore are of quite different nature to the spring quotidians), and secondly, a *tertian*. Morphologically, the description of these two parasites is practically identical, and again would seem to throw some doubt on the narrower view of the distinct specificity of plasmodia for each type of fever.

Mannaberg and others seem to confirm the existence of these two types of parasite, but quite recently, Thayer, in the monograph to which I just now referred, states that he is quite unable to satisfy himself of the existence of two types, the difficulties of the investigation rendering the stages of development very obscure.

The question is not of great importance in view of the similarity of the two organisms (if there be two), so we may perhaps consider what are the main features of the parasites of the whole group. In many essential features these are like the tertian and quartan organisms. The youngest forms are very small hyaloid bodies attached to the red corpuscles. These frequently appear first as small ring-shaped bodies, which soon show very active ameboid movement. They gradually increase in size, but remain smaller than the other types of parasite, so that when fully developed they may not fill more than one third of the blood-corpuscle. After a time they show pigment dots, but this pigmentation does not occur till much later than in the spring organisms, and remains less in amount throughout. The infected corpuscles tend to be much distorted and shrivelled and to become of a greenish yellow—"brass" colour, as it has been called. When fully developed, the pigment is seen to collect in the centre, and this change occurs, generally speaking, before the febrile paroxysm or exacerbation.

Beyond this stage the development cannot be traced in the circulating blood, for the later stages take place in the internal organs, especially the spleen. This fact marks a great pathological difference between these parasites and those of the spring agues (though even in these latter the segmenting forms tend to accumulate internally).

The further stages of development have been described from blood taken from the spleen by a hypodermic needle. In this way and by examination of organs post mortem it has been shown that the adult organisms with central pigment segment in a manner precisely analogous to the other forms of parasite, the pigment being left with the other debris on separation of the segments.

So, then, it is almost generally agreed that in all the fevers so far studied—intermittent, remittent, and continuous—there is this recurring development of generations of parasites in the blood, the stage of segmentation corresponding to the febrile attack or exacerbation. In the more irregular or continuous fevers the parasites are irregular in their development, and so are found at any one time, in many stages, though perhaps there may still be groups which, maturing together, cause a rise in temperature.

In all cases this developmental cycle is essentially the same; in all cases the organisms resemble one another very closely, though in some details they differ.

But it will be noticed that in this life cycle neither crescentic bodies nor flagellate forms occur. What is the meaning of these?

What part do they take in the history of the parasite? These are questions which unfortunately have not yet received complete answers. For this reason, and for the sake of simplicity, I have left what little there is to say about these forms till the present point.

In the intermittent fevers many of the organisms do not, on becoming mature, segment in the manner I have described. Some seem to become free in the plasma and gradually degenerate and break up. But sometimes from an adult free parasite a short time after removal of the blood from the body there are seen violent movements in the pigment particles, and then there are suddenly shot forth one or more long flagella, which lash about vigorously, and may break off and swim about freely in the plasma.

These flagellate forms are regarded by many of those who have written upon the subject as degenerate forms, and the movement as a phenomenon occurring on the death of the organism. The flagella have been compared to the artificial processes which can be produced in red corpuscles by heat, but most observers are agreed that they are utterly unlike these.

But another idea, which whether true or not is a very interesting one, suggests that these forms play some part in the life of the organism outside the body. This part of the life history of the parasites is at present utterly obscure. That they must live somewhere other than in human blood is obvious, but where and in what form is unknown.

Dock, Mannaberg, and others have suggested this meaning for the flagellate bodies,—that they are forms capable of living elsewhere than in the blood, and forming the first step in an existence outside the body which is to end in forms capable of again infecting the blood. More than this it is impossible to say on the question at the present time.

In the summer-autumn fevers, similarly, all the adult parasites do not form spores. Some increase in size and alter in shape, so as to form first oval and then spindle-shaped bodies inside the corpuscles. These bodies differ considerably in appearance from the ordinary endocorpuscular parasites. Their substance is hyaline, and they have a very refractile border. They are considerable larger than the ordinary forms of the parasite. Eventually these bodies tend

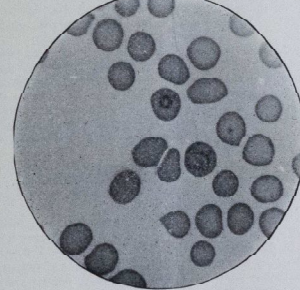


FIG. 1.—Specimen of blood taken seventeen hours after the febrile attack in a case of tertian ague. Two of the corpuscles contain plasmodia, one small, the other about half filling the corpuscle. The pigment granules are not very obvious, but the more intense staining periphery is well seen.

to become crescent-shaped, and in this form constitute the crescentic bodies of which we have already spoken. The appearance of these is highly characteristic. They are large—their greatest length about the diameter of a red corpuscle—the cell substance is very transparent, and their border so refractive as to give rise to appearances which have been taken for those of an actual membranous wall. The pigment is grouped together near the middle of the cell body, and the remains of the corpuscle in which the crescent was formed can often be seen as a delicate membrane-like structure in the concavity of the crescent.

This process of conversion of adult intracorpuscular forms occurs exclusively in the spleen and other internal organs, though the fully-formed crescents circulate in the blood. The conversion occurs only in the summer-autumn fevers, and never in the history of the ordinary tertian and quartan parasites. In the summer-autumn fevers crescents never appear at the commencement of the disease, but only after five days or more.

As to the real nature of these bodies and their subsequent history, as little is known as of the flagellate forms. They are supposed, on the one hand, to be degenerate forms, and, on the other, to be capable of actual segmentation, and the production of a fresh generation of ordinary parasites. In any case it seems to be fairly certain that these crescentic or ovoid bodies may gradually change their form until they again become spherical, and that these spherical bodies may give rise to flagella exactly as do the adult free parasites of tertian and quartan fevers.

The important points as to the crescents to be borne in mind are:—That they occur only in the summer-autumn fevers; that they only appear in these after the disease has existed for a certain time; that they only persist in the blood after all the ordinary endocorpuscular forms have disappeared, and may thus be present for some time after the cessation of fever; and that in any case where present their appearance is most striking and characteristic, so that they are often far more obvious than are the small perhaps unpigmented ameboid forms.

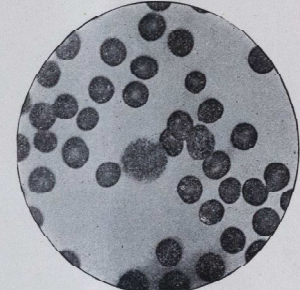


FIG. 2.—Specimen of blood taken a few hours before a febrile attack. A large plasmodium with well-marked pigment granules is seen nearly filling one of the corpuscles, the remains of this latter being quite obvious on the left side. In the centre of the field is a finely granular eosinophilous leucocyte.

I had intended to make a few remarks as to the part played by phagocytes in the life history of the parasites, but it is enough to say that all forms of parasite may be found in the phagocytes, and that apart from the pigmented and other debris the forms principally attacked are those in which the blood-corpuscle is either destroyed or greatly changed by the action of the parasite. The flagellate forms also are frequently absorbed by leucocytes, but the young intracorpuscular forms scarcely ever. The pigment itself after being taken up by the leucocytes is deposited in the spleen and other organs, and gives rise to the visceral pigmentation so common in long-standing cases of malaria.

The only point which is of any great interest in the minute structure of the parasites is the question whether or not they possess a nucleus. They certainly have no distinct definitely staining nucleus like that of a leucocyte. But as a general rule the intracorpuscular parasites show in stained specimens a more deeply-stained periphery with an almost unstained central area. At the junction of these two is frequently seen a small deeply-stained dot. Most of the recent writers on the subject interpret these appearances as a bladder-like nucleus, the clear central area with a small amount of chromatin forming the small stained dot or nucleolus. And Mannaberg, who has paid considerable attention to these details, describes a process of diffusion of this nucleolus into the body of the parasite preparatory to spore formation, the nucleolar structure apparently dividing up and forming the bright spots which may be seen in the parasite during spore formation, and in the spores themselves after their separation.

I have myself never seen anything in the least like a nucleus, though it is very common to get marked peripheral staining. I should not think anything of the fact were it not that the pictures, which Mannaberg and others have published of the nucleus, are vague in the extreme—indeed, almost as open to question as are the appearances in ordinary specimens.

In one of the specimens under the microscope (from an out-patient here) there is in all the parasites (and they are very numerous) an appearance such as I have never seen either represented or in other

specimens. These parasites are all intra-corporeal, and fill about half the area of the affected corpuscles. They form complete rings with nearly all the cell substance on one side of the ring. On the opposite side, at the thinnest part of the ring, is a small, oval, highly refractile dot, which can be quite plainly seen in all of the photographs reproduced. As to the meaning of the appearance I am quite uncertain.

On the whole, then, I think that taking into consideration the vagueness of accounts, and the absence of definite appearances in actual specimens, too much stress must not be laid upon our knowledge of the minute structure of the parasite.

The more purely biological nature of the parasites has scarcely enough bearing on medicine to render it necessary to consider this here. Suffice it to say that biologists of the eminence of Metschnikoff are still unagreed as to the exact position of the organisms in the animal kingdom, though they are generally believed to be more closely allied to the Sporozoa than to any other class of unicellular animals.

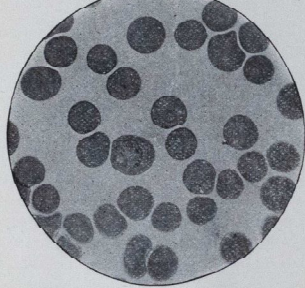


FIG. 2.—Specimen of blood taken twenty-four hours before an attack of tertian fever. The plasmodium shows on the left side the clear unstained circular area referred to in the text. The ring-shape of the whole plasmodium is not well seen in the reproduction.

Certain corporeal organisms bearing a strong resemblance to the malarial parasites have been described in the blood of other animals, especially birds and amphibia by Ray Lankester and others. And special interest attaches to the recent descriptions of such organisms in birds of malarial districts. Up to the present time the exact bearings of these on the hæmatosa in man has not been determined, but they may be expected to throw much light on the biology of the human parasite.

Relation of Parasite to the Disease and its Symptoms.

Having thus considered the appearances and the main points in the nature and development of these organisms, the point which at once suggests itself is this—What is the nature of the relation between the parasite and the disease. Is the parasite, in fact, the cause of the disease?

Now in the case of disease depending on bacterial parasites there are certain rigid test conditions, originally enunciated by Koch, which, being satisfied, give actual proof of the causal relation between an organism and the disease with which it is associated. But we have in malaria to deal—not with a bacillus—not, indeed, with a vegetable organism at all, and it would seem likely on the face of things that conditions applicable to one class of parasite might be useless in investigations of organisms belonging to a totally different class. And, in fact, the fundamental point that the malarial parasite has never been cultivated in artificial media renders quite inoperative the processes of investigation applied to bacteria. And, at present, similar satisfactory test conditions applicable to these malarial parasites have not been devised.

However, there are many points which are at least strongly suggestive of a causal relation between the parasites and malaria. In the first place, the parasites have been found in malarial cases in all parts of the globe where examinations have been made. And they are found, if sufficiently careful search be made, in the vast majority of cases. Secondly, the parasite is never found except in malarial cases. Thirdly, two of the main symptoms of malaria, the

anæmia and pigmentation of blood and viscera, are obviously due to the action of the parasite. Fourthly, under the action of quinine the organisms disappear from the blood as the fever is cured. And, lastly, inoculation of blood containing the parasite into man leads to malaria in the person so treated, and to the presence in him of parasites similar to those from the patient from whom the blood was taken.

Many of the main symptoms of the disease receive an immediate explanation from the life-history and action of the parasite.

The nature of the fever certainly is not obvious. It coincides with the maturation of a generation of parasites in the intermittent fevers, and the more irregular types are generally associated with a corresponding complexity in the parasites, so that there may be present organisms in all stages of development. But the actual nature of the production of the fever is at present undetermined. It is generally supposed that during spore formation certain toxic, fever-causing products are formed and liberated in the blood, but the view, I think, based on nothing more than pure theory and analogy.

But the other marked symptoms of the disease, the anæmia and the pigmentation of the viscera, are obviously dependent on the direct action of the parasites on the corpuscles, which themselves are destroyed and of which the hemoglobin is assimilated and digested by the parasite, the useless residue being excreted as melanin; this melanin being set free after spore formation, is taken up by the leucocytes and eventually deposited in the internal organs. Before the discovery of the parasite, great attention had been paid to the pigmentation, and it was commonly thought to arise in the spleen. The anæmia may be very extreme and very rapidly produced, and, as would be expected from its production, is characterized by a parallel diminution in hemoglobin and number of red cells. In one case the red cells on the fourth day of the disease were 3,000,000 per c.mm., and hemoglobin 60 per cent. On the seventh day the corpuscles were 2,000,000 and hemoglobin 45 per cent.—an extremely rapid alteration.

The symptoms of the pernicious cases are often referable to the presence of the parasite in the affected organs. In the rapidly fatal cases with coma and other cerebral symptoms, sections of the brain show that the capillaries are loaded with pigmented parasites in the corpuscles, and though the exact mode of production is uncertain, this may be supposed to have a considerable bearing on the important symptoms.

The malarial parasite, then, throws considerable light on the nature of the symptoms, and it will in a way explain another marked feature of the disease, and that is its tendency to recur. Between attacks far apart there are ordinarily no changes to be seen in the blood, and it is supposed that some of the organisms in the form of spores or otherwise remain in the internal organs (possibly the marrow or spleen) till some adverse circumstances enable them to flourish again in the body of the patient. And bearing on this may be remembered the well known fact that anything which lowers the condition of one who has had malaria will tend to bring about a recurrence.

The bearing of the Parasitology on Diagnosis and Treatment.

The discovery and elucidation of the nature of the parasites have, therefore, absolutely cleared up many obscure features of malaria. Of their ultimate effects on our knowledge of this disease and on medicine generally we cannot yet judge, but it has already proved an almost inestimable boon to those who have to practise medicine in malarial districts, for it gives what has hitherto been entirely wanting—a means of absolute diagnosis of the disease, and this is of no little value, even in England. We have here in the wards many obscure febrile cases in those who have been exposed to malarial infection, whose diagnosis may be cleared up at once by an extremely simple blood examination.

The temperature chart in a case of phthisis or other suppurative condition may be by no means unlike that of a quotidian ague. And, on the other hand, the chart of a continued malarial fever may be indistinguishable from one of typhoid. And in the absence, as is so common, of very definite signs of these conditions, the diagnosis may be a matter of considerable difficulty. But the presence in the blood of a single parasite is conclusive evidence of the presence of malaria, whatever else there be.

The result, if the blood examination be negative, is not so decisive. But if several blood examinations at short intervals in a case of fever fail to reveal any abnormal conditions in the blood, I think one may go so far as to say that the cause of the fever is something other than malaria. Of course, a single negative examination means little. From what I have already said, it will be seen that at some periods of the fever there will be less probability of finding the parasite than at others, and the amount of blood examined is so very small that,

unless numerous, the presence of the organisms may easily be overlooked.

Of the unfortunately very limited number of cases I have examined myself lately, there were two who appeared to have malaria in whom I repeatedly failed to find the parasite. And both these cases it turned out had other disease—one apical phthisis, and the other cystitis. Whether these conditions constituted the whole disease or not, I do not know, but any rate there was other cause than malaria for the temperature.

But in addition to its value in differential diagnosis, much may be learnt as to the nature and probable course of a case of malaria from examining the blood. Golgi has shown that, other things being equal, the severity of the disease is proportionate to the number of parasites found. And the severity will likewise depend on the variety of parasitic forms. If a large number of small endo-corporeal forms with crescents be found, the case is sure to be more severe than one in which there are but few of the large tertian or quartan forms.

The onset of the paroxysm may in a simple intermittent be prophesied almost with certainty (assuming quinine be not given).

There was a case in the hospital lately which illustrated this point very well. Soon after admission the blood showed very numerous parasites, all filling about one half of the corpuscles. Seventeen hours after, the man had a fit with a temperature of 105°. Twelve hours after this, the blood showed only a few large swollen extra-cellular forms and no young parasites at all. And although the patient remained in for several days he had no other paroxysms.

So, then, from the diagnostic point of view the parasite is of great interest. As Osler says, "meanwhile advantage may be taken of its constant presence in malaria. This alone, without reference to the true nature of the organism, is a fact of the highest importance. To be able, everywhere and under all circumstances, to differentiate between malaria and other forms of fevers is one of the most important advances which have been made of late years in practical medicine."

The effects of the discovery of the parasite on the treatment of malaria have been necessarily limited by the fact that the most efficient of all our specific remedies had already long been used empirically. Cinchona has been used in Europe for the treatment of agues since the seventeenth century. And so the discoverers of the malarial parasite have been deprived of the additional glory of discovering the rational therapeutics of the disease. But at any rate it is more satisfactory to have some idea what a drug is doing than to be totally in the dark as to its mode of action, and so the question of the effect of cinchona or its alkaloids comes to be of some interest.

Early in the history of the parasite, Laveran found that a very weak solution of quinine rapidly stopped all movements in the parasite. But so, unfortunately, does almost any foreign substance, water or salt solution for instance, added to the blood—as Marchiafava and others showed.

Since then, Mannaberg, Golgi, and many others have studied the blood in patients treated with cinchona, with the result of a unanimous agreement that administration of quinine kills the parasites.

If the blood be examined some hours after the administration of say 10 grains of quinine in a case which should show amoeboid forms, these are found to have lost their amoeboid movement, many of them are disintegrated and form small fragments inside the corpuscles. But quinine administered just before an attack does not prevent the segmentation of the organisms, and hence does not prevent the attack, but the spores formed are subsequently destroyed. Indeed, Golgi has shown that it is the newly-formed spores which are most susceptible to the action of quinine, so that if the maximum effects are required from one dose of quinine, the time to give it is just before a febrile paroxysm.

And the nature of the action of the drug has a practical bearing on the mode of its administration. For it seems certain that, for the proper action to take place, a certain strength of solution of the drug in the blood is necessary. Hence the more rapidly the drug is absorbed, the more effective will it be, and hence also it follows that the best method of administration where rapid results are required is that of intravenous injection, which lately has been very successfully used in the gravest forms of the disease.

The illustrations appended to this paper are pictures of actual specimens of malarial hæmatosa, and are intended to give an idea of the appearance to be looked for in the blood of a malarial patient. They are photographs taken by Messrs. J. W. Roughton and C. H. Cosens—a $\frac{1}{2}$ inch apochromatic objective eye-piece being used. The specimens from which the photographs were taken were obtained from cases in Matthew Ward during the past year.

It was not thought advisable to reproduce a systematic series of

pictures or diagrams, as these can be readily referred to in various works on the subject.

The Bibliography of malaria is a very large one, several hundred additions having been made to it in the last few years. The following, in addition to various recent articles in the medical journals, are the works, in English, in which the best accounts of the malarial parasites are to be found:

1. LAVERAN *Paludism*, New Sydenham Soc., 1893.
2. MARCHIAFAVA AND BIGNAMI, *The Summer-Autumn Malarial Fevers*, New Sydenham Soc., 1894.
3. MANNABERG, *The Malarial Parasites*, New Sydenham Soc., 1894.
4. THAYER AND HEWETSON, "The Malarial Fevers of Baltimore," *Johns Hopkins Univ. Reports*, 1895.

Notes.

An entirely novel Exhibition is to be held at St. Martin's Town Hall, London, from June 1st to June 13th, which should prove extremely popular and interesting. It is proposed to show the many useful and ingenious instruments and dressings by means of which the modern Trained Nurse is enabled to carry out medical directions for the alleviation and cure of illness or injury. For example, there will be Nursing Appliances as employed in the chief General and Special Hospitals of the United Kingdom; Model Beds and other Furniture for the Sick Room and the Hospital Ward; Nursing Uniforms and Dress; Hospital Certificates, Medals, and Badges for Nurses. The methods in use at the hundreds of Hospitals in the United Kingdom differ so greatly that such an Exhibition should not only be of much interest, but also of much educational value to the large numbers of women now engaged in Nursing. To medical men and the public also, the Exhibition will, doubtless, prove both interesting and novel. A Nursing Conference is to be held at the same place and date for the discussion of various matters of much professional and public importance, and the scheme is being organised by Mrs. Bedford Fenwick, late Matron of St. Bartholomew's Hospital, and editor of our contemporary, *The Nursing Record*.

IT APPEARS from the reply of Sir J. Corst in the House of Commons on May 7th to a question of Sir A. Rollit, that a Bill for the reconstitution of the University of London is now being prepared in the Privy Council Office, but that it has not yet received the approval of the Government.

R. SEVESTRE, late House Physician to Dr. Church, has recently been admitted to the degree of M.D. of the University of Cambridge.

DR. E. P. PATON, late Assistant Demonstrator of Anatomy, has been elected Surgical Registrar to the Westminster Hospital.

EVERY ONE'S attention is again drawn to the Amalgamated Clubs' Dinner on June 6th, which will follow the Past & Present Cricket and Lawn Tennis Matches.

ALL Bart's men who knew him will deeply regret to hear of the death of Mr. Fraser-Luckie. There are few men who leave behind them so many personal friends.

* * *

AMONGST the "Calls to the Bar" at the Middle Temple on April 29th, we notice the name of Dr. Frederick J. Waldo, D.P.H., Medical Officer of Health, Middle and Inner Temple, and St. George's Southwark.

* * *

DR. KANTHACK, whose motto for the Jacksonian Prize Essay we reproduce elsewhere by reason of its originality, has been appointed Deputy Professor of Pathology at Cambridge for this term on account of Professor Roy's illness. Dr. Kanthack is therefore, by the sanction of the Governors and Almoners of the Hospital, and the Medical Committee, dividing his duties between Bart's and Cambridge. Dr. Kanthack will be at Bart's on Tuesdays, Wednesdays, and Saturdays, and at Cambridge on Mondays, Thursdays, and Fridays.

* * *

THE course of Elementary and D.P.H. Bacteriology began on Tuesday, May 12th. The class meets on Tuesdays, Wednesdays, and Fridays at 1.45 p.m. Fridays being devoted to practical work entirely under the direction of the Treasurer's Student in Pathology, Mr. J. W. W. Stephens. The Elementary course will be continued until the middle of June; the D.P.H. course until the middle of July.

* * *

GENTLEMEN desirous to work in the Pathological Laboratory for the Surgical Registrar, are requested to communicate with Mr. Berry at once.

* * *

GENTLEMEN desirous to work in the Pathological Laboratory for Dr. Kanthack (Medical Morbid Histology) are requested to communicate with the museum assistant, Ernest Shaw.

* * *

NEW REGULATIONS for the Entrance Examination to the Army Medical Service have recently been issued. In future the more professional parts of the Entrance Examination are to receive more weight, 1200 marks each being given for Medicine and Surgery, instead of 1000 marks as hitherto. Anatomy and Physiology will receive 600 marks instead of 1000, and Chemistry and Materia Medica will receive 600 instead of 1000. In the voluntary part of the examination, again, more marks will be obtainable, viz. 200 each for French and German (instead of 150), and 300 each for two Sciences (instead of 300 altogether). In the Science part of the Examination, candidates will be allowed to choose *two only* of the Sciences, Physics, Zoology, Geology and Physical Geography, and Botany. The new regulations are undoubtedly an improvement, and we are glad to find that Medicine and Surgery are in future to have each double the value of one of the other compulsory subjects.

* * *

THE Examiners have decided not to award the Wix Prize.

MR. P. FURNIVALL has been elected Assistant Surgeon to the Metropolitan Hospital.

* * *

DR. HARRY CAMPBELL has been elected a Fellow of the Royal College of Physicians.

* * *

WE CONGRATULATE Mr. S. GILLIES most heartily on having obtained the Murchison Scholarship of the Royal College of Physicians.

Amalgamated Clubs.

NEW MEMBERS.

H. A. Woodruffe.	W. P. Price.
P. H. Scholberg.	F. W. Cheese.
L. M. Morris.	L. C. Ferguson.
P. H. Ross.	M. B. Scott.
E. A. Ellis.	A. C. Young.
F. Weber.	E. G. Pringle.
C. S. Woodward.	A. C. Brown.

ASSOCIATION FOOTBALL CLUB.

HOSPITAL CHALLENGE CUP.—SFMI-FINAL. ST. BARTHOLOMEW'S HOSPITAL v. LONDON HOSPITAL.

This match was played at Leyton before a large number of spectators, many of whom were from London Hospital, the students of which turned out in great force. St. Bartholomew's came out fairly easy victors by 4-0.

Play was started by London, but possession was obtained by Joy, and the latter passing to Waterhouse play was transferred to the opponents' end where Willett, after some good tactics, allowed Woodbridge to shoot—the ball, however, going behind. London now attacked very vigorously, good play being performed by the centre half, but they seldom got within shooting distance. After this Bart's scored the first point by Woodbridge from a good shot, and a few minutes after Willett, from a good run, put the ball into the net. The score at half time was 2-0 in Bart's favour. After half-time London played up very well indeed, and after a run Green sent in a shot, which, however, just cleared the post. Bart's then waking up took the ball down by the medium of Hay, and the latter centreing, Willett took possession, and by an excellent use of the power of extension possessed in his limbs, put the ball into the net. The Bart's goalkeeper, Fox, after this had to save once or twice, but none of the shots were very deadly, and before time Bart's had again scored by Waterhouse, who with Talbot had been doing excellent work on the right.

Time was called with the score 4-0 in our favour, Bart's thus qualifying for the final v. Mary's.

The exhibition of play by Bart's was fairly good throughout, the forwards especially were very good, since Willett was playing for the first time for a month, and the combination was, if anything, better than before.

Team.—E. H. B. Fox, goal; K. P. Brown and L. E. Whitaker, backs; A. H. Bostock, N. H. Joy and H. J. Pickering, half-backs; T. H. Talbot, K. Waterhouse, J. A. Willett, E. W. Woodbridge, and A. Hay, forwards.

HOSPITAL CHALLENGE CUP.—FINAL.

Tuesday, Feb. 17th.—ST. BARTHOLOMEW'S HOSPITAL v. MARY'S HOSPITAL.

This Cup Tie took place at Leyton before a very large number of partisans of both hospitals, as well as those of others. The game was expected to be of an exciting character, as both teams had been playing very well just before; but, as was anticipated by most, the Bart's team came out victorious by 3-1.

Mary's kicked off, and started at a very great pace, but were pulled up by Pickering, who giving to Hay, the latter quickly transferred to the opponents' end, only to end in a goal kick. Mary's kept up a stubborn attack, and playing with the wind well behind them, looked very dangerous, till finally, Cruise passing to Sworder, the latter got well away, and sent in a shot which Fox was unable to reach. This made Bart's more energetic, and before the end of ten minutes, Willett, by a good pass from Woodbridge, put the ball into

the net, thus making the score 1-1. Play then tumbled fast and furious, and two appeals against Sharples were allowed for foul play, but no result followed till half-time, as Mary's were kept well in their own half.

On re-starting, play again became fast, but it soon became apparent that the Bart's team were in better condition than their opponents, who were becoming more and more fagged. Runs were made repeatedly by Hay and Talbot, the latter putting in some exceedingly good and fast work on the outside right, until Robinson, getting possession, sent in a shot which beat Gover; the score then standing 2-1 in Bart's favour. After this, Bart's kept on pressing, Mary's seldom getting away, and until time was called only becoming dangerous once, while the former sent in shot after shot, which gave the Mary's goalkeeper ample opportunity to show his excellence, until Robinson, by a good shot, scored another point for Bart's.

Until the whistle blew for time Bart's held their opponents well in hand, and at all of time came out victorious by 3-1, thus winning the Hospital Challenge Cup for the season 1895-6, being the second year they have held it consecutively.

TEAMS.

St. Mary's.—W. A. Gover, goal; F. D. Conry and J. Sharples, backs; G. R. Cox, F. F. Lobb, and H. Vickers, half-backs; E. G. Sworder, W. Ferris, R. R. Cruise, W. R. Flint, and R. C. Leaning, forwards.

St. Bart's.—E. H. B. Fox, goal; R. P. Brown and L. E. Whitaker, backs; A. H. Bostock, N. H. Joy, and H. J. Pickering, half-backs; A. Hay, E. W. Woodbridge, J. A. Willett, C. A. Robinson, and T. H. Talbot, forwards.

Linesmen.—W. A. Cox and J. F. Fernie.
Referee.—C. W. de Lyons Pike.

CRICKET CLUB, 1896.

The prospects for this season do not at first sight appear very encouraging. We have lost three members of last year's team, and several others will not be able to play regularly owing to examinations. This is the more unfortunate as we have an exceptionally good fixture card. However, there are several "freshers" of good repute who we hope will "come off." We are, as usual, badly in want of bowlers, though we have a fairly strong batting side. The nets are up for practice every day, and it is hoped that all who can will take advantage of this.

The draw for the Inter-Hospital Cup has not yet taken place. We have as yet not received many applications for places in the "Past" Team for June 6th, but there is no reason to doubt that it will be a strong side.

Dr. J. A. Kanthack's Motto.

JACKSONIAN PRIZE ESSAY FOR 1895.

TETANUS.



"What are these,
So wither'd, and so wild in their attire;
That look not like the inhabitants of the earth,
And yet are on't?"—*Macbeth*, Act 1, Sc. 3.

View Day.



VIEW DAY comes but once a year, etc. Well it came on May 13th, and struck the casual observer as being neither better nor worse than its predecessors. There were the usual groups of pretty girls, chaperoned and unchaperoned, making the Square gay with their presence; Pa and Ma promenading up and down, and no doubt comparing their young

stalwart with others of a similar species. Much as usual, too, was the procession of Governors marching in solemn state from ward to ward, headed by the Treasurer and Matron; the same questions asked, the same answers given, and also the same old chestnuts that Adam cracked before woman took to blooming. One kindly face away whose absence tinged our joy with just that touch of sorrow whose absence tinged our joy with just that touch of sorrow that makes us friends and brothers.—Mark Morris has gone,—"will be well if we can make so good a going."

The habit of moralising in a "mere reporter" does not, however, impress his editor, so here's to a description of the scene.

First the Square, improved since last year by the removal of trampled flower-beds and the substitution of shelters, which in turn have been improved,—thanks, I believe, to the kindness of one of the Governors,—by hanging baskets of flowers at the several corners; filled with scarlet and pink geraniums, they looked distinctly bright and cheerful. Second, the wards—well, I may as well say at once that our reception (*I dared not go alone*) was anything but flattering; we went to admire, and succeeded in doing so to a limited extent, but alas! we were not admired. Indeed it stuck me as quite extraordinary, so great was the malevolence we occasionally met with; however, several invitations to tea soothed our ruffled spirits and tempered these remarks with a little

sugar than they might otherwise have possessed. The scheme of decoration was, I understand, limited by the want of variety at Covent Garden, whither a large proportion of the Nursing Staff went at some absurd hour in the morning. (I went myself once, more to see the nurses than to get any flowers, and have ever since been trying to find out which were the dearer.) Irises, purple and gold, there were in abundance, together with occasional departures into tulips and lilac; very pretty they all looked too, if not elaborate, and elaboration in art is considered by the powers that be bad form—that is, just at present, for two or three years ago a distinctly healthy rivalry existed between the various wards, fighting for supremacy in beauty, the result being some unusually artistic effects of floral decoration. Someone unfortunately called rivalry, jealousy, and this unhappy misunderstanding of the English language led elaboration on the head, there was an extravasation of wrath—and elaboration died, poor dear. President was agreed on all hands to be the prettiest, and it certainly looked charming with its delicate pink muslin and trailing ivy; numerous bamboo rods decked with flowers, and placed at the different angles, added to the pretty effect. Elizabeth also had a marvellous floral trophy in one corner. Mark looked delighted with painted panels, and ivy wreaths with large pots of marguerites. Pitcairn was a study in dark blue, and in being possessed of a Trilby table-cloth was distinctly up to date. Sitwell had olive green table-covers, on which were large bunches of rhododendron and white broom, our attention being also directed to an old-fashioned grog bowl, alas with no grog. Without doubt the fashionable beauties to be told in detail, much space would be required, and a much abler pen than mine to tell them. Suffice it, that among the wards especially well arranged we noticed Martha, white and pale green, with a baby in the same colour. Lucas, Darker, the scarlet coats of the patients enhancing the effect, Harley and John. Sister John was unfortunately away, a fact which to many would spoil the beauty of any mere decoration; but we can only hope that her health, which has been far from satisfactory of late, will be greatly improved by the change.

I need scarcely add that there was tea, and tea in abundance, while one ward, Charity, had a novelty in the way of iced coffee, a happy idea considering that the heat of the day combined with the climbing of an excessive number of stairs made locomotion rather a thirsty amusement. I understand that there was a big dinner in the evening, but you must really ask the Editor all about that, as the commoner press were not invited.

View Day Dinner.



THE Annual Dinner which follows the formal procession of the Treasurer and Governors through the Hospital, was held on May 13th.

The dinner was, as usual, excellent, and the attendance used to the full the resources of the Queen, the Prince and Princess of Wales, and all the Royal Family," was given by the Treasurer.—Sir Trevor Lawrence,—who presided at the Dinner.

The Treasurer alluded to the visit which the Prince and Princess of Wales

had paid to the Hospital since the last View Dinner, and remarked that the Princess of Wales spoke individually to every patient in the wards visited by Her Royal Highness.

The second toast—that of "Prosperity to St. Bartholomew's Hospital, and Health and Ease to the Poor Patients,"—was also given by the Treasurer, who, in his speech gave, as is usual, a *résumé* of the work of the Hospital during the past year, and foreshadowed several changes likely to occur during the coming year. He first referred to the unfortunate coincidence of the Dinner of the Royal College of Surgeons with our View Dinner, stating that our claim to the second Wednesday in May was based on two important grounds,—the standing orders of the Hospital, and immemorial custom. Sir Trevor gave the figures of the work done by the Hospital during the year, and contrasted them with the figures of the previous year. They were as follows:

	1895.	1894.
In patients	7306	7006
Out patients	15,792	15,192
Casualty patients	143,271	144,610
Maternity patients	1520	1617

The Samaritan Fund had supplied 360 patients with money, 222 with clothing, 111 with money and clothing, and 569 with surgical appliances. The Samaritan Fund, Sir Trevor said, was of incalculable value in aiding patients who had been kept long in the Hospital and who, having lost their situations, would otherwise be destitute on leaving.

Patients had been sent to convalescent homes to the number of 965. Of these 896 had been sent to Swanley. Thus one out of every eight patients had enjoyed the advantages of a convalescent home. The Staff of the Hospital—medical and surgical—numbered 66, and there were 26 teachers in the school as well as 26 members of the Staff. The female Staff numbered 48, the total number of persons employed in the business of the Hospital being 625.

Referring to the finances of the Hospital, Sir Trevor spoke of the effect of the present agricultural depression, our income from agricultural land in 1877 having been £12,180, as contrasted with £5475 in 1895, a fall of 55 per cent. An outlay of £4135 had been made upon small house property in London, and though this seemed a large amount there was the gratifying result that our tenants have better and more wholesome houses to live in, which can be pointed to as a credit to the Hospital. As a hospital St. Bartholomew's should set an example in its management to all medical institutions in the country, and a recollection of this fact underlay all the work done by the governing body.

An important change had been made in the Medical Staff of the Hospital by the appointment of a fifth Physician and Assistant Physician, and two House Physicians. Sir Trevor congratulated the Hospital on having secured, for the post of Physician, a man so eminent in his profession as Dr. Lauder Brunton. Sir Trevor referred with regret to the resignation by Mr. Alfred Willett of the Joint-Lectureship on Surgery.

An important announcement was made by the Treasurer in regard to the Junior Staff. Representations had been made to the authorities to the effect that St. Bart.'s did not do for their Resident Staff as much as was done by other hospitals with attached Medical Schools. The Governors had given a great amount of consideration to the question, and had decided to increase the expenditure upon the Resident Staff by £600 a year, either by increasing the salaries or by completely boarding the Residents.

The change would date from the 1st of October next, and such an allowance would be made to the Junior Staff as would be tantamount to giving them a fair and reasonable board. Arrangements would be made with the College Maniple, which would lead to his supplying the Resident Staff at a fixed tariff, and in such a way as would give them complete satisfaction. It had been agreed unanimously, that if done at all it must be done in such a way as to give complete satisfaction. It was hoped that the burden of the increased expenditure would not be a permanent one, but would ultimately be borne by an alteration of other salaries. This, however, could not take place until the end of a considerable number of years.

Turning to the appearance of our square—which, by the way, Sir Trevor alluded to by the unfamiliar name of "Quadrangle" (we are nothing if not Conservative at Bart.'s), the new shelters were spoken of as a great improvement, and the pleasing announcement was made that Mr. Marson, a Governor, had very kindly supplied the baskets of flowers hanging from the corners of the shelters, and had agreed to keep them full of flowers throughout the summer. The kindness of Mr. Homan and Mr. Marson would do much to hasten the recovery of our patients.

The New Pharmacopœia of the Hospital, and the establishment in the Electrical Department of the necessary apparatus to make a satisfactory use of the discovery of the X rays, were mentioned by Sir Trevor as likely to be of considerable advantage to the Hospital.

The work at Swanley had undergone some change, inasmuch as patients were now sent there in a much earlier stage of convalescence than formerly. This had necessitated the construction of a new Dispensary there in place of the cupboard, in which drugs had been previously kept.

Sir Trevor alluded sympathetically to the loss the Hospital had sustained by the death of that old and valued servant, Mr. Mark Morris, who had served the Hospital for over half a century. He trusted that his successor, brought up in Mr. Mark Morris's school, would be as good and valued a servant.

The Nursing Staff of the Hospital came in for a well-deserved eulogy, the Treasurer remarking that the Nurses were proud of their connection with a Hospital whose Nursing Staff could not be beaten in the world anywhere. Sir Trevor concluded by congratulating Dr. Kanthack on his new laurels in the shape of the Jacksonian Prize; Dr. Kanthack had secured so high a position in pathology that he had been asked to take the place of Professor Roy at Cambridge during his illness.

The toast of the "Medical and Surgical Staff of the Hospital" was proposed by Sir Cameron Gull, M.P. As a Governor of Guy's, Sir Cameron was filled with envy, desire, and covetousness in learning the satisfactory state of our resources. He would almost wish that some of our income could be transferred to that struggling institution, Guy's Hospital. (Laughter and applause.)

Sir Cameron dilated upon the advantages of Medicine over Law. He said that the knowledge gained by the medical profession, unlike that of the law, could not be set aside even by the howls of anti-vaccinators, whereas law was liable to be over-ridden by the House of Lords, or by what is euphemistically called "the superior wisdom" of the Houses of Parliament. The speaker feared lest the use of the X rays should convert the consultation-room into the confessional. He coupled with the toast the names of Dr. Church and Mr. Howard Marsh.

Dr. Church spoke of the occasion as the only opportunity the Staff had of officially meeting the Governors as a body. Both had at heart one and the same object, the welfare of the Hospital. Many years ago the Staff made a recommendation to the Governors that the Medical Staff should be made equal in number to the Surgical. All were glad that the recommendation had at last been carried into effect. Dr. Church had on the same occasion as the present, twelve months ago, advised the Governors that they could not do better than advance the scientific work of the Hospital. He was sorry to hear that no Governor had as yet come forward to endow a Chair of Pathology. A great university, being in want of a professor, had asked Dr. Kanthack to supply the place temporarily. But for the Treasurer's appointment of a Research Student, the Medical Committee could not, in the interests of the patients, have allowed our Pathologist to take the appointment. They felt, however, that the interests of the Pathological Laboratory would be safeguarded by Mr. Stephens in Dr. Kanthack's absence. The Pathological Department would, Dr. Church said, soon require extension. Dr. Church endorsed the Treasurer's remarks with regard to the death of Mr. Mark Morris. It ever a man fulfilled the duties of his office satisfactorily, that man was Mark Morris. This was owing to Mr. Mark Morris's extraordinary judgment and wonderful tact.

Mr. Marsh, in a humorous speech, explained the absence of some members of the Senior Staff at the College of Surgeons Dinner in Lincoln's Inn. One-fifth of the Council of the College were members of the Bart.'s Staff. They could not be hosts at Lincoln's Inn and guests at the View Dinner at Bart.'s at the same time, and they certainly could not eat two dinners. It had been suggested that each of the Senior Staff should submit to an operation by their Juniors, which should enable a part to be at Lincoln's Inn and a part at Bart.'s. This plan the Senior Staff had not taken kindly to. Besides, they were reminded of Baron Munchausen's horse, which had been divided by the fall of a portcullis; had the Senior Staff come to the dinner with the drinking power possessed by Baron Munchausen's horse after the operation, there would certainly have been no wine for anyone else. Mr. Marsh spoke pathetically of the loss of Mr. Mark Morris, who, he said, on leaving the hospital in a cab for the last time, kissed his hand to the hospital. Mr. Marsh wished the Governors—in the words of the Barmaid—"Ealth, which after personal appearance is the greatest blessing as is."

Lord Holhouse gave the toast of the "Treasurer and Almoners of St. Bartholomew's Hospital." His Lordship referred to the great interest he had always taken in our Hospital, and spoke of the great

work that was done within its walls. "He served God best who served mankind best." The names of Sir Trevor Lawrence and Mr. Baker were coupled with the toast.

Sir Trevor Lawrence, in replying, stated that he traced his own connection with the Hospital for more than half a century. With his father's life and his own they would between them soon complete the century.

Mr. Baker spoke of the absence of Mr. Wire, whose illness compelled him to go abroad. In July next he would complete his twelfth year of almonership. Years ago, he said, there existed officers connected with the Hospital called scrutineers; their duty was to remind scriveners to avail themselves of their opportunities of persuading testators to remember this charity in disposing of their wealth. He thought that, in these days, though there were no scrutineers, it would be well that testators should be kept informed of the great work done by this Hospital. "Although our revenues are large, our aims are still larger." He proposed the toast of "Our visitors" coupling with it the name of the Right Hon. the Earl Waldegrave.

The Earl Waldegrave replied briefly, and was followed by Canon Covington, who gave the toast of "The Prize Winners and Students," with the names of Messrs. Gillies and Horder.

Mr. Gillies spoke in approval of the resolution of the Governors to improve the condition of Residents in the Hospital. He was glad that it could no longer be a reproach to the Hospital, that the best men were prevented from becoming members of the Junior Staff for financial reasons.

In the intervals between the speeches several songs were charmingly sung by Mrs. Helen Trust, Signor Aldo Antonietti rendered several pieces in good style on the violin, and Signora Antonietti played the piano accompaniments.

Round the Fountain.

By LINCOLN CRANBORNE.

"THE miserable conceit of cliques is getting wearisome," remarked the Chronic. "Every one is a member of some particular set, each one of which considers itself superior to its fellows."

"What do you mean by clique?" inquired the Enthusiast, somewhat anxiously.

"I mean," replied the Chronic, "the formation into sets, which strive as far as possible to be exclusive, of a number of men of similar tastes and habits. For instance, here are some: The various athletic cliques, the 'Varsity clique, the pious clique, the sporting clique, and the clique of excessive imbecility."

"You might add," suggested the Fresher, "as a subdivision, those who go to Miss Cross's, to the Hall, and to other lunch places."

"My main objection to such a condition," continued the Chronic, "lies in the fact that it limits the interchange of ideas; for example, I, as a member of the football set, am prevented from ascertaining the opinion of apparent piety upon the system of four three-quarters."

"I agree with you," said the Enthusiast, "in thinking that good-fellowship is less marked here than it ought to be."

"Why," asked the Fresher, "does the M.B. man despise the college man? because it seems to me, that a capacity for reading ten hours a day does not denote a more advanced intellectual state than a capacity for reading only one."

"I should have thought," replied the Enthusiast, with an obvious sneer, "that increased capacity for work meant increased intellectual power."

"There you are wrong," put in the Chronic. "Some of the cleverest men of the day have little or no talent for prolonged study. Indeed, I take it that the most necessary part of a man's education, and especially a doctor's, namely, the study of character, requires no great burrowing in books; and that brings me to what I consider the great drawback of our profession. I mean narrow-mindedness, accompanied too frequently by gross general stupidity. Put the average medical student, of four or five years' standing, in a room when the conversation happens to be in the least degree intellectual. Put him there, I say, and where is he?"

"In a room," murmured the Fresher.

"—Why his vacuous expression would shame a sheep: MANNERS too! the natural outcome of a general education, are frequently frightfully impaired if not totally absent. Yes, 'tis a big step from the surgery to the salon, and few there are to make it."

"You are hard on your profession," remarked the Enthusiast, "too hard; there is little enough time to study and keep pace with recent advances in medicine, without spending a large part of it uttering platitudes in the palaces of the rich."

"Ah, yes," retorted the Chronic, moving away, "you are coming on as house surgeon, I believe? 'twill be as well if, unlike some of them, you can treat a fracture without qualifying for the kitchen."

"That spots the Current," laughed the Fresher. "But I see the senior demonstrator of anatomy coming out of the school, and as his ideas on work are somewhat at variance with—"

"Quite so," interrupted the Enthusiast, "you had better run; I will undertake to cover your retreat."

Appointments.

CALVERLEY, J. E. G., M.R.C.S., I.R.C.P., has been appointed House Surgeon to the Metropolitan Hospital.

HAMPTON, T., M.R.C.S., L.R.C.P., has been appointed House Physician to the Metropolitan Hospital.

FALKNER, L., M.R.C.S., L.R.C.P., has been appointed Assistant House Physician to the Metropolitan Hospital.

TOYE, E. J., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Metropolitan Hospital.

REYNOLDS, J. GUTHRIE, M.B. Cantab., D.P.H., has been appointed Fifth Assistant Medical Officer to the London County Lunatic Asylum at Banstead.

RAWLINGS, J. D., M.B. (Lond.), M.R.C.S., L.R.C.P., appointed House Physician to the General Lying-in Hospital, York Road.

BLACDEN, J. J., M.R.C.S., I.R.C.P., appointed Assistant House Surgeon to the Taunton and Somerset Hospital.

FORMAN, G. H., M.R.C.S., L.R.C.P., appointed Junior House Physician to the General Hospital, Nottingham.

BURNETT, L. B., M.A., B.C. (Cantab.), M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the Leicester Infirmary.

MAW, H. S., L.S.A. appointed House Surgeon to the Teignmouth Hospital.

SNOW, L. M., M.R.C.S., L.S.A., appointed Medical Officer to the Second District of the Horsham Union.

CARSON, W. H., M.R.C.S., L.R.C.P., appointed Resident Medical Officer, Tottenham Hospital.

RECKS, HENRY, M.R.C.S., L.R.C.P., appointed Medical Officer of the Steyning Union Workhouse.

CROSS, W. F., M.R.C.S., L.R.C.P., appointed House Surgeon to the Tottenham Hospital.

WALSHAM, HUGH, M.A., M.B. (Cantab.), M.R.C.P., has been appointed Assistant Physician to the Victoria Park Hospital for Diseases of the Chest.

PAXTON, F. V., M.B. (Oxon.), M.R.C.P., has been appointed Consulting Physician to the Chichester Infirmary.

SADLER, F., M.B., B.Ch. (Oxon.), has been appointed Honorary Surgeon to the Beckett Hospital and Dispensary, Barnsley.

WIGHTMAN, J. P., L.R.C.P., F.R.C.S., has been appointed Medical Officer of Health for Rawdon, near Leeds.

SYMONS, W. H., D.P.H. (Oxon.), has been appointed Medical Officer of Health for Bath.

II. F. HYDE, M.B.(Camb), M.R.C.S., L.R.C.P., appointed Assistant House Surgeon to the General Infirmary, Worcester.

GILL, SAMUEL E., M.B.Lond., L.R.C.P., M.R.C.S., has been appointed Resident Medical Officer to the Royal Hospital for Diseases of the Chest, City Road.

CHAVE, T. ANSTEY, M.R.C.S., L.R.C.P., has been appointed Clinical Assistant to St. Luke's Hospital for Lunatics.

STRICKLAND, CHARLES, R.N., to H.M.S. Mohawk, May 2nd.

PHILLIPS, LL. C. P., M.B., B.C., B.A. Cantab., M.R.C.S., L.R.C.P., has been appointed House Physician to the Royal Free Hospital.

Examinations.

FINAL L.S.A.—T. B. Bokenham has passed in Medicine and Midwifery.

D.P.H. CAMBRIDGE.—G. F. Collins, J. G. Blandford, A. M. Mitchell, and J. N. Cook have recently taken this diploma.

FIRST CONJOINT—*Biology*.—The following have passed:—H. Adams, E. Adams, H. E. Ashley, A. H. Bostock, T. M. Body, A. Butler, F. M. Bishop, C. L. Chalk, A. T. Compton, H. Duncan, V. J. Dugan, S. de Carteret, E. A. Donaldson-Sim, A. B. Edwards, F. H. Ellis, G. F. Furley, C. R. A. Grimshaw, L. Green, V. C. Heseltine, E. L. Hughes, G. J. Humphreys, R. J. Hanbury, W. J. G. Johnson, N. Leonard, N. Lipscomb, K. A. Lloyd, H. N. Maseott, W. P. Miles, A. K. Pollock, P. M. Perkins, W. G. Paget, J. F. Robertson, F. M. F. Rice, H. H. Scapell, G. M. Seagrove, R. Thorne-Thorne, A. R. Tweedie, F. E. Taylor, R. H. R. Whittaker, T. Young, E. G. Smith, M. G. Finder, E. C. Hepper.

FIRST CONJOINT—*Materia Medica and Pharmacy*.—R. N. Geach, C. A. R. Provis, W. H. Cazaly, A. L. Scott, E. G. Smith.

FIRST CONJOINT—*Chemistry and Physics*.—G. S. A. S. Wynne.

FIRST CONJOINT—*Elementary Physiology*.—A. Thompson.

FIRST M.B. DURHAM—*Chemistry and Physics*.—A. R. Baker.

SECOND M.B. DURHAM.—W. J. Codrington and M. D. Wood.

SECOND CONJOINT—*Anatomy and Physiology*.—G. P. Taylor, L. A. Walker, J. M. Collins, T. H. Gandy, S. R. Scott, W. H. Leonard, R. H. Vincent, C. S. Frost, W. E. G. Maltby, R. E. H. Woodford, W. S. Danks, H. S. Thomas, J. A. Willett, A. Thompson.

SECOND CONJOINT—*Anatomy only*.—F. R. Eddison, W. S. A. Bell, J. S. Gaynor.

THIRD M.B. CAMBRIDGE—*Part I, Surgery and Midwifery*.—W. L. Brown, H. Williamson, J. B. Hughes, R. F. Baird, H. J. Bumsted, H. C. T. Langdon, W. L. Duckworth, T. H. Molesworth, H. J. R. Twigg, C. F. Lillie, H. W. P. Young.

THIRD M.B. CAMBRIDGE—*Part II, Medicine*.—H. W. Lance, R. D. Parker, A. G. Penny, H. C. Selby, A. B. Ward, and G. Webb.

FINAL M.R.C.S., L.R.C.P.—The following having completed the examination in Surgery, Medicine and Midwifery, have obtained their diplomas:—E. Forrest, J. J. Blagden, J. Brock, S. R. Douglas, O. Briggs, A. B. Ward, G. H. W. Fillicombe, T. J. Horder, J. A. J. Murphy, C. H. Hopkins, E. G. D. Drury, T. A. Chave, E. G. Simmonds, J. T. Anderson, E. Pratt, J. A. Spear, J. C. Powell, H. C. Wimple, C. M. Welburn, G. H. Forman, A. R. J. Douglas, H. R. Ellis.

Cases of Special Interest.

Medical.

Luke, bed 7.—Embolic hemiplegia.
 Luke, bed 9.—Double aortic murmur.
 Luke, bed 15.—Disease of pons Varolii.
 Matthew, bed 12.—Subcutaneous rheumatic nodules.
 Matthew, bed 9.—Pernicious anemia.
 Matthew, bed 8.—Disseminated sclerosis.
 Colston, bed 24.—Leucocythæmia splenica.
 Colston, bed 16.—Exophthalmic goitre.
 Rahere, bed 18.—Aortic and mitral disease.
 Faith, bed 20.—Scoury rickets.
 Faith, bed 15.—Tubercular peritonitis.
 Hope, bed 12.—Lead poisoning.
 Hope, bed 7.—Cirrhosis of liver.
 John, bed 13.—Chronic tubal nephritis.
 John, bed 18.—Pempfigus.
 John, bed 15.—Ulcerative endocarditis.
 Elizabeth, bed 21.—Morbus cordis.

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. Kanthack, at the following rate:

Ordinary examination, Bacteriological or Pathological, such as tumour, membrane, or sputum	s. d.
Ordinary (qualitative) urine examination	2 6

Any further report will be charged for at a special rate. If a mounted specimen is desired an extra charge of 1s. will be made. If a telegraphic report is 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 E. H. Shaw, 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.

Clinical Lectures for the Summer Session.

Medical.—Fridays, at 1 p.m.
 May 8th.—Dr. Church.
 " 15th.—Dr. Gee.
 " 22nd.—Sir D. Duckworth.
 " 29th.—Dr. Hensley.
 June 5th.—Dr. Brunton.
 " 12th.—Dr. Church.
 " 19th.—Dr. Gee.
 " 26th.—Sir D. Duckworth.
 July 3rd.—Dr. Hensley.
 " 10th.—Dr. Brunton.

Surgical.—Wednesdays, at 2.45 p.m.
 May 6th.—Mr. Smith.
 " 20th.—Mr. Smith.
 " 27th.—Mr. Willett.
 June 3rd.—Mr. Willett.
 " 10th.—Mr. Willett.
 " 17th.—Mr. Marsh.
 " 24th.—Mr. Marsh.
 July 1st.—Mr. Marsh.
 " 8th.—Mr. Butlin.
 " 15th.—Mr. Butlin.

Obituary.

WILLIAM SQUARE, F.R.C.S.

Many old Bartholomew's men will hear with deep regret of the death of this well known and highly esteemed surgeon, which took place on April 18th, after a short illness from pneumonia, at his residence in Plymouth, at the age of fifty-two. Mr. Square was the eldest son of the late Mr. W. S. Square, F.R.C.S., a distinguished provincial surgeon, and brother to Mr. J. Elliot Square, F.R.C.S., names identified with St. Bartholomew's. He was educated at Rugby, matriculated at the London University, and received his professional education at Bart's, where he was Senior Scholar in 1866, and Sir James Paget's House Surgeon in 1867. He became M.R.C.S. in 1866 and F.R.C.S. in 1871. He particularly distinguished himself as an operating surgeon, and up to the time of his death was surgeon to the South Devon and East Cornwall Hospital, having been appointed on the retirement of his father from that position about ten years ago. Amongst other appointments, he held those of surgeon to the Royal Eye Infirmary and to the Fire Brigade, and Consulting Surgeon to the Provident Dispensary. Last year he was appointed president of the Plymouth Medical Society. He was a man of great power and activity, blunt and outspoken, but most kind to all who were in real distress or trouble. His goodness of heart and personal worth endeared him to a wide circle of professional and private friends. We take the following from the *Western Morning News*:—"Of the late Mr. Square it may truly be said that he was a man of many parts. He was gifted with an extraordinary memory, and whenever that failed him, his rare imagination stood him in good stead. It was these endowments which made him such a genial companion and such a versatile conversationalist. Although a very good raconteur, he never told a story against anyone nor uttered an ill-natured expression. He was an ardent sportsman, whist as a fisherman, and more recently as a cyclist, his imprudent disregard for the safety of his own health proved a constant source of anxiety to his friends. To give pleasure to others was his greatest delight, and for this he would sing a song, tell a tale, work up a lecture,—often upon a subject with which he had little or no previous acquaintance,—and spare neither time nor money in arranging some theatrical performance or in stirring up interest in some philanthropic movement. One of his hobbies was the cultivation of flowers, and he was frequently a prize-winner at local horticultural shows. He was immensely fond of travelling, one of his latest expeditions being to the Pyramids, an expedition which recently formed the subject of a characteristic lecture before the members of the Plymouth Institution." The respect in which he was held was manifested by the very large gathering, representative of every profession and of every class, who followed him to the grave. He leaves a widow and three children,—a boy and two girls.

HENRY O'NAGHTEN FRASER LUCKIE,
 M.B.LOND., M.R.C.S.ENG., L.R.C.P.LOND.

All who knew Henry O'Naghten Fraser Luckie will hear with a sense of personal loss that he died of phthisis on the 5th of May. The knowledge that death came as a happy release after many months of illness takes away some of the sting of sorrow. In December, 1894, he took his degree of M.B.Lond. After a holiday spent in Italy and the Riviera he returned to London; and in March, 1895, entered into partnership with Mr. Cosmober at Fakenham in Norfolk. He had an attack of influenza about a month after starting his new practice, and took a short holiday at Brighton. He had a second attack of influenza before he had properly recovered from the first, and went on to Lowestoft; but anxious to get back to work, he returned to Fakenham in a weak state of health. A long drive in the early hours of a raw May morning, to an urgent case, gave him a fresh chill and started a pneumonic phthisis, affecting the whole of his left lung and the upper lobe of the right lung. Dr. Burton-Fanning, of Norwich, saw him, and a slide, full of tubercle bacilli, confirmed the diagnosis. When Luckie knew that he had phthisis he decided to come home. He gave up his partnership and returned to London early in June. Under the care of Drs. Calvert and Cautley he gained ground for about two months, then began to get worse again, and went down to Brighton, but did not improve. He returned to London and went on to Bolderigha in October. For a time he rallied, but in December he developed tubercular laryngitis. He moved to San

Remo and remained under the care of Dr. Michael Foster. As he was getting steadily worse he came home on February 18th. He gradually sank, and on Easter Monday developed a pneumothorax. His heart failing towards the end, he passed quietly away at 1.15 p.m. on Tuesday, the 5th of May. He was buried at noon in the Newbury Cemetery on May 9th, 1896.

Fraser Luckie was educated at the now defunct International College at Isleworth. Mr. Ladell, the well-known Rugby football player, was head master; under his influence Luckie soon developed into an exceptionally fine half back, and was captain of the first XV when it contained such men as Everard and Allport, and was probably the strongest school team in England. He also rowed No. 3 in the school four-oar. On leaving school, for a short time he was in office in the City, but finding that the life did not suit him he gave up business and entered at Bart's in 1884. He played for the Hospital in the Cup-ties for two years, and for Blackheath in 1886-7, but during that season dislocated the acromial end of his clavicle and gave up football for several years. In 1891-2 he, anxious as he ever was to give a helping hand, became captain of the Hospital second team, and played regularly. Always fond of the water, he kept up his rowing and joined the London Rowing Club, gaining his seniority by rowing bow in the winning crew of the Junior Eights in the Metropolitan Regatta of 1891. He was one of the founders of the Hospital Swimming and Water-Polo Club, and for two years played "back" for the team. Military matters interested him intensely, and for some years he was an enthusiastic member of the London Scottish Volunteers. Many of the older members of our Boxing Club were enabled to realise what a great advantage his long reach and quick eye gave him.

The reasons for Fraser Luckie's great popularity were not hard to discover. Gifted with a sunny nature, his cheery voice and merry laugh put everyone into a good temper at once. When one got to know him one found that any kind of desecr was hateful to him; he would never tell a society lie; and it was most interesting to see him get out of a difficult situation without hypocrisy, and yet without hurting anybody's feelings. His sound common sense and powers of observation enabled him to tackle difficult problems, both in his work and in his life, with success. He was a sportsman of the purest type, always willing to give a beginner a hint, or to do a friend a good turn. His fine physique and natural aptitude for sport enabled him to "keep his end of the stick up," to use his own words, at any game.

"Toff" was a nickname given to him by A. W. Lemarchand, chiefly because of his habit of dressing or anything else was not a falling of Luckie's. His kind pluck and kindly nature were very evident all through his long and trying illness. What a trial nine weary months in bed must have been to such an active man, one can hardly realise; but Luckie never once complained; and when the end came he passed quietly away, leaving, in the lives of many folks who knew him, a blank which will never be filled.

Correspondence.

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

INVERSION OF THE UTERUS.

DEAR SIR,—Your correspondents need only refer to the paper by Dr. Matthews Duncan, read before the Obstetrical Society of Edinburgh, March 27th, 1867, and reprinted in his *Mechanism of Natural and Morbid Parturition*, p. 277, for an answer to most of their questions. On p. 292 he says, "Four kinds of uterine inversion occur after delivery:—(1) spontaneous passive uterine inversion; (2) artificial passive uterine inversion; (3) spontaneous active uterine inversion; (4) artificial active uterine inversion."

The following is a summary of the facts:
 1. Spontaneous passive inversion. The first two words require explanation: "spontaneous" in all these varieties means the opposite to "artificial." "Spontaneous" means that the woman produces the inversion unaided; "artificial" means that she produces it with the aid of the attendant. "Passive" means the opposite to "active." "Passive" means that the whole uterus is relaxed; "active" means that the final stage of inversion is completed by uterine contraction. No inversion can take place if the whole uterus is contracted. For inversion to be possible either (a) the whole uterus (= "passive"), or (b) the placental site (= "active") must be relaxed. In "spontaneous passive" inversion (a) the whole uterus is relaxed; (b) the inversion is produced by bearing down.

2. In "artificial passive" (a) the whole uterus is relaxed; (b) the

attendant produces the inversion by (i) traction on the cord, or (ii) pressing the uterus unskillfully from above.

3. In "spontaneous active" inversion (a) the placental site is relaxed; (b) bearing down produces *introversio* or cupping of the fundus, which is then within the uterine cavity, and is seized by the uterus, treated as a foreign body, and expelled, turning the uterus inside out.

4. In "artificial active" inversion, (a) the placental site is relaxed; (b) the attendant produces the inversion by (i) traction on the cord; (ii) pressing the uterus unskillfully from above. Introversio is produced and converted into complete inversion as in 3.

Name.	Predisposing cause (state of uterus).	Exciting cause.	Attendant.
1. "Spontaneous passive"	All relaxed	Bearing down	Not to blame.
2. "Artificial passive"	All relaxed	(1) Traction on cord. (2) Unskillful pressure from above	To blame.
3. "Spontaneous active"	Placental site relaxed	(a) Bearing down producing <i>introversio</i> . (b) Expulsion of introverted part by uterine contractions	Not to blame.
4. "Artificial active"	Placental site relaxed	(a) (1) Traction on cord producing <i>introversio</i> . (2) Unskillful pressure from above producing <i>introversio</i> . (b) Expulsion of introverted part by uterine contractions	To blame.

"Spontaneous" inversion is occasionally produced in case of fibroids; the uterus seizes on the "foreign body," and in expelling it turns itself inside out. We have such cases in "Martha" from time to time. It is not very uncommon to have the first stage of this variety, where "cupping of the fundus" is produced. In such cases the uterus is shortened before removal of the tumour, and becomes longer after its removal. We had such a case the other day. "Spontaneous," "artificial," "passive," and "active" are not, I think, very happily chosen terms. They really mean "not caused by the attendant," "caused by the attendant," "altogether relaxed" (uterus), "partially relaxed" (uterus) respectively; and I think "passive spontaneous," "passive artificial," "active spontaneous," "active artificial," would have been a better order. The duty of the attendant in dealing with an inversion is to reduce it at once, and generally to peel off the placenta first. The recently inverted uterus can always be replaced.

The question as to the attendant is not one between "doctor" and "midwife," but between skill and want of skill. All doctors are not skilful, and all midwives are not unskilful.

I hope I have made the matter clear, but Dr. Matthews Duncan's writings ought not to be unknown to St. Bartholomew's men. Moreover, if they had not the advantage of being his pupils, they have at least the opportunity of hearing all that I have written above every year during the summer session. But then medical students of the present day are expected to spend all their time in deglutition, leaving very little for either mastication, insalivation, digestion, or assimilation. I am sorry. I invite all inquirers to the present course.

F. H. CHAMPNEYS.

ROYAL MEDICAL BENEVOLENT COLLEGE.

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

DEAR SIR,—As Honorary Local Secretary for the Royal Medical Benevolent College in this district, I naturally take a considerable interest in the welfare and prosperity of that excellent institution, but I take even more interest in it as an old Bart.'s man, for I am sorry to say that it hardly ever happens that there are not, among the can-

dilates for its foundation scholarships, one or more sons of old Bart.'s men who have died without being able to leave adequate provision for the education of their children.

Two years ago two boys were candidates, whose fathers, before they died, had been honoured members of the St. Bartholomew's Hospital Sixth Contemporary Club. This fact was mentioned at the Annual Dinner of the Club, and the consequence was that, chiefly by the votes and interest of those members who were subscribers to the institution, these two boys were elected to foundation scholarships at Epsom College in the first year of their candidature.

This excellent result showed how much might be done if Bart.'s men who were subscribers would only combine in a common resolve to vote for any sons of old students of their Alma Mater who happened to be candidates. Recognising that the Club to which I belong, the Sixth Contemporary, furnished a common rallying-point, so to speak, and also that the more subscribers we had amongst us the more good we could do, I, with the consent and approval of our Honorary Secretaries, issued an appeal to those members of the Club who did not already subscribe, asking them to do so in future, and to give the votes thus acquired to the sons of old Bart.'s men. I found that about sixty of our members were already subscribers, and my appeal issued to the remainder resulted in the acquisition of more than thirty new annual subscribers of one guinea, all more or less pledged to vote for the sons of old Bart.'s men.

I undertook to let the members of our Club who are subscribers know, as soon as the voting papers are issued, what sons of old Bart.'s men were candidates, so that they might know for whom to vote. This year there are three, or possibly four on the list, and I am afraid there are sure to be one or more every year.

My chief object in writing this letter is to remind the Hon. Secs. of the other St. Bartholomew's Hospital Contemporary Clubs that the organisation of the Club affords them an opportunity of bringing the matter before their fellow members, and of taking advantage of that love of their Alma Mater which is inherent in every old Bart.'s man, and which my own experience has proved can be easily aroused in the interest of a most deserving institution generally, and of the sons of old Bart.'s men in particular.—I remain, sir, yours faithfully, E. C. CRIPPS.

CIRENCESTER; April 23rd, 1896.

Births.

GRANT.—On April 30th, at 8, Upper Wimpole Street, W., the wife of Dundas Grant, M.A., M.D., F.R.C.S., of a son.

HURRY.—On April 29th, at Abbotsbrook, Reading, the wife of Jameson B. Hurry, M.A., M.D., of a daughter.

ROYDEN.—March 21st, at Burgh St. Margaret's, nr. Great Yarmouth, the wife of William Royden, M.A. (Cantab.), M.R.C.S., L.R.C.P., of a daughter.

BONTOR.—April 23rd, at Great Berkhamsted, Herts, the wife of Sidney A. Bontor, M.D., of a son.

EDGE.—May 2nd, at Tudor House, Maidenhead, the wife of Arthur Edge, M.B. Lond., of a daughter.

* Marriages.

GREENYER—LINDSAY.—April 15th, at Upper Tooting, V. I. Greenyer, L.R.C.P., M.R.C.S., to Mary J. Douglas Lindsay, younger daughter of George Lindsay, of Balham.

GROVES—ANDERSON.—April 21st, at St. Nicholas, Cole Abbey, by the Rev. E. Anderson, M.A., Vicar of Berwick Bassett, Wilts, father of the bride, assisted by the Rector, Canon Shuttleworth, E. W. H. Groves, L.R.C.P., M.R.C.S., to Frederica Margaret L. Anderson.

Deaths.

SQUARE.—On April 18th, at Plymouth, Wm. Square, F.R.C.S. Eng., L.R.C.P. Lond., aged 59 years.

FRASER-LUCKIE.—May 5th, at the residence of his father, Spencer Park, Wandsworth Common, H. O. Fraser-Luckie, M.B., in his thirty-first year.

ACKNOWLEDGMENTS.—*Civ's Hospital Gazette*, *St. George's Hospital Gazette*, *St. Mary's Hospital Gazette*, *The Nursing Record*, *The Charity Record*.

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. BOOTH, Advertisement Canvasser and Collector, 29, Wood Lane, Uxbridge Road, W.

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St. Bartholomew's Hospital Journal,

JUNE 14th, 1896.

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

The After-history of a Case where a Dermoid Tumour of the Ovary obstructed Labour.

By WILLIAM JOHN GOW, M.D.,

Assistant Obstetric Physician, St. Mary's Hospital; Obstetric Physician to the Royal Hospital for Children and Women and to the Metropolitan Hospital.



IN the afternoon of December 17th, 1895, I was asked to see a Mrs. S—in consultation. She was a woman of thirty-one years of age, and had recently been delivered of her sixth child. During her fifth confinement, which had occurred two and a half years previously, a tumour was noticed in her pelvis, and its presence led to considerable difficulty during the second stage of

labour, but with the aid of forceps a living child was extracted. The last labour commenced on December 15th, and delivery was effected by means of forceps, forty-eight hours later. Great difficulty was experienced because of the presence of a tumour in the pelvis which was as large as a man's fist, but after prolonged efforts with the forceps a dead child was extracted.

On the morning of the 19th a vaginal examination was made by her medical attendant, and a rounded tumour was found hanging into the vagina. On manipulating this, there suddenly escaped a quantity of thick yellow fluid, accompanied by hair, showing that a dermoid tumour had been penetrated. I saw the patient the same day, and found on vaginal examination that there was a large rent in the upper part of the posterior vaginal wall extending into the peritoneal cavity, and that through this was projecting a collapsed ovarian dermoid cyst. The patient's general condition was fairly good; there was no abdominal tenderness, and the temperature was only slightly above normal. The collapsed cyst was pushed back through the rent into Douglas's pouch, and as the surroundings of the woman did not permit of anything further being done in her own house, it was recommended that she should be transferred to the Royal Hospital for Children and Women, and this was accomplished the following day.

On December 21st the abdomen was opened in the usual way, and the collapsed cyst drawn out and after ligation of the pedicle it was cut away, the vagina having been previously disinfected as completely as possible by means of a copious irrigation with a solution of perchloride of mercury. The cyst lay in Douglas's pouch, and had developed in connection with the right ovary; the portion of the cyst-wall which lay over the aperture communicating with the vagina had begun to necrose. The patient's temperature at the time of the operation was 100.6°. The ovariectomy was followed by no vomiting and no abdominal distension or tenderness, but it was noticed that the patient's temperature was gradually rising and that there was a very offensive discharge from the uterine cavity. The uterus also was not undergoing involution in a satisfactory manner, and from the

presence of these symptoms, septic endometritis was diagnosed.

On December 27th the uterine cavity was irrigated with a solution of carbolic acid, and the fetor of the discharge was thereby diminished; but although there was a temporary fall in the temperature, it soon rose again to 103°.

On the 31st the dressing was removed from the abdominal incision, and the stitches were taken out; the wound had healed, and the abdomen was quite flat, and free from tenderness.

Intra-uterine irrigation was repeated from time to time, but the temperature still remained very irregular, generally reaching 103° at night. The patient ate well, and complained of no special pain. On the evening of the 6th of January I went down to see her, as after a slight shivering attack the temperature had risen to 105°. The symptoms during the last seventeen days had pointed to the existence of septic endometritis, and the variability of the temperature seemed to suggest that the micro-organisms which were undoubtedly present in the uterine mucosa, were invading from time to time the blood-stream, and thus producing irregular febrile disturbance. As intra-uterine douching had failed to relieve these symptoms, it was decided that a trial should be given to curettage. The patient was accordingly brought into the theatre and anaesthetised. The cervical canal was dilated with Hegar's dilators, and then a curette was cautiously introduced into the uterine cavity. Great care was taken, because the danger of perforating the uterine wall was fully present to my mind during the operation. After scraping the anterior and posterior walls the curette was pushed on up to the fundus, but without detecting any resistance; it was speedily discovered that the curette had penetrated the uterine wall, and it was easy to feel the end of it close to the umbilicus. The curette was immediately withdrawn, and as the interior of the uterus was undeniably septic, it was thought to be the safest plan to at once re-open the abdomen and extirpate the entire uterus and cervix. This was accordingly done, and the left ovary and tube and the whole uterus and cervix were removed from above. There was very little hæmorrhage, and the patient did not exhibit any symptoms of shock. The peritoneal cavity, which appeared healthy, was cleansed as carefully as possible, but no drainage-tube was employed, as it was thought that if any fluid collected it would easily escape through the opening in the vaginal vault which had been made when the cervix was freed from its attachments.

The uterus after its removal was laid open and examined. The fundus presented a slit-like aperture through which the blunt end of the curette had passed. The anterior and posterior walls of the organ were about three quarters of an inch thick, but the tissue forming the fundus and uniting the anterior and posterior walls was no thicker than a piece of stout brown paper. A pair of pressure-forceps pushed against this portion of the uterine wall penetrated it with

the greatest ease, and gave rise to no appreciable sense of resistance during their passage. The interior of the uterus was shaggy and irregular, and nothing resembling normal endometrium could be seen. The peritoneum covering the uterine body was shiny, and presented no signs of inflammation. The left tube and ovary were healthy.

During the next three days after the operation the temperature gradually fell until it reached the normal level, but pain was complained of in the right side of the chest, and a pleuritic rub was detected over the base of the right lung. At the end of this time, however, the temperature began to rise again, and on the 11th the patient had a distinct rigor. On the 13th pus discharged itself from the lower angle of the abdominal wound, and on the next day from the vagina also. It was now manifest that pus had collected in the pelvis, no doubt as the result of infection at the time the uterus was perforated with the curette. A drainage-tube was introduced through the abdominal sinus and the cavity syringed out, and a few days later the tube was passed right through from the abdominal sinus into the vagina, so that in this way the cavity could be effectively irrigated. On the 29th of January the discharge from the vagina and abdominal sinus was distinctly fecal, pointing to the formation of a fistulous opening between the bowel and the abscess cavity. The patient's temperature still kept up, and there were occasional rigors, but she maintained her strength in spite of everything and took her food freely.

On February 20th a swelling the size of a hen's egg was noticed beneath the middle of the left sterno-mastoid. The swelling was elastic, and had all the characters of a metastatic pyæmic abscess. This was opened and drained, and from that time the patient steadily began to mend. There were no more rigors and the temperature fell to normal, and she left the hospital on March 16th practically well, although there was still a small discharging sinus at the lower angle of the abdominal incision. The fistulous communication with the bowel had spontaneously closed up.

This case is interesting from several points of view. The dermoid cyst which obstructed delivery, and the subsequent ovariectomy, were but incidents in the patient's clinical history. No doubt if the cystic nature of the tumour had been recognised during labour, it would have been better either to have punctured or incised it through the vaginal vault and evacuated its contents, and so allowed the child's head to advance, or else to have performed Cæsarean section, removing the tumour at the same time. The case was essentially one of septic endometritis, with general infection of the blood stream, the infective organisms evidently possessing only a low degree of vitality. It illustrates one of the dangers of curetting the puerperal uterus, and the great thinning of the uterine tissue at the fundus, as seen after the removal of the organ, was highly instructive, showing that no amount of care could under the circumstances have prevented the curette from penetrating through the uterine wall

at this point. The great temporary benefit noticed after the extirpation of the infected uterus seems to show that in certain cases when protracted fever accompanies septic endometritis, the removal of the entire organ gives the best chance of relief. It seems probable that if the peritoneum had not been infected by the curette which perforated the uterus, no pelvic abscess would have followed, and the patient's period of convalescence would thus have been substantially shortened. The removal of the septic uterus may be accomplished either through the vagina or through an abdominal incision, and in the case narrated the latter route was chosen partly because the uterus could not be drawn freely downwards, and partly because the abdominal incision gave a better opportunity for investigating the condition of the peritoneum and for ascertaining whether there was any collection of pus within the pelvis which had been overlooked. It must not be forgotten, however, that in the great majority of cases of septic endometritis, spontaneous cure results, the febrile disturbance generally terminating in from seven to ten days from the onset of symptoms. It is only in the prolonged cases where there is no evidence of the spread of the organisms into the veins of the broad ligament, that so radical a method of treatment would be entertained. It has, however, I am sure, many advantages over the repeated curetting to which the uterus is sometimes subjected under similar circumstances.

In the case of Mrs. S—, it no doubt would have been wiser to have inserted a drainage-tube after the completion of the hysterectomy, because drainage through an aperture in the vaginal vault is not to be relied on unless a strip of gauze is used to keep the edges of the vagina apart. If free drainage had been provided, the fecal fistula in all probability would not have formed.

I believe that micro-organisms had found their way into the blood-stream before the pelvic abscess formed, but that owing either to their virulence being less than normal, or the resisting power of the tissues being greater than normal, they had not been able to make much headway. The clinical symptoms seemed to point to hordes of organisms passing from time to time from the uterine mucosa into the circulation, but soon perishing from the destructive action of the tissues on them. The respiratory embarrassment which was present from the tenth day onwards certainly suggested that the symptoms were not due to the absorption of ptomaines merely, and the condition of the endometrium as seen after removal made it unlikely that sufficient chemical poison was manufactured there to produce the amount of constitutional disturbance from which the patient suffered. This, of course, is purely hypothetical, but that later on organisms were present in the patient's blood was proved by the development of the pyæmic abscess in the neck.

Although many links in the chain of evidence are unfortunately lacking, the case as it stands presents some features of interest, and may suggest lines along which

investigation is needed, and so help to a clearer understanding of certain forms of puerperal septic infection.

The Rotunda Hospital, Dublin.

By J. D. RAWLINGS, M.B. Lond., M.R.C.S.,
Late House Physician, St. Bartholomew's Hospital.

"How much a dunce that has been sent to roam
Excels a dunce that has been kept at home."—*Cropper.*

IT is, I think, to be regretted that so very small a proportion of Bart.'s men take advantage of the opportunity that we all have of studying midwifery and gynecology at the Rotunda Hospital. I do not for a moment advocate that unqualified men should substitute a month's work at Dublin for the corresponding period at St. Bartholomew's; that is a most fatal mistake, for a man who is looking forward to examinations cannot do justice to the opportunities offered by the Rotunda; and, moreover, since the great majority of resident "pupils" there are qualified men, the teaching is not quite of that systematic and very elementary kind which is needed by the man who is seeing his first twenty cases. His unavoidable mistakes, too, will make him feel more ridiculous (though he will meet with nothing but respectful sympathy) when surrounded by his seniors than if they occurred among men of exactly his own standing. What I do advocate, however, is that every qualified man who has done all the gynecology and midwifery that he can get at Bart.'s, should, if he can afford the time (and time is cheap for most of us when first qualified) go to the Rotunda for two or three months as an "intern pupil." During that time he will attend without at all overworking himself from a hundred to a hundred and fifty midwifery cases, and will make complete examinations of about the same number of gynecological cases, and will see innumerable gynecological operations, and will probably perform one or two minor ones himself. He will see methods of treatment which are new to him, and some of which may strike him as improvements on what he has seen before. He will have no opportunity of becoming lax in his ideas of asepsis in midwifery and surgery, which for abdominal sections is carried to such a degree that a plate-glass partition is erected between the operating table and the students, thus preventing even the voice of a student from reaching the sanctum sanctorum, and the most septic remarks may be made by the disciple without fear of infecting the Master or his patient.

The social and domestic life of a pupil at the Rotunda divides itself into two heads—(a) inside the hospital; (b) outside the hospital.

(a) With regard to the domestic arrangements, one may say without any desire to flatter the Rotunda, that there is an entire absence of that enervating degree of luxury which

is the bane of the pampered medical student in London, and of which a typical example may be seen in the quarters provided for the Extern Midwifery Clerks at our own Hospital, where each student has a whole bedroom to himself, the papers have not fallen off the walls, and (*mirabile dictu!*) the floors are carpeted. Who can tell what habits of indolence and procrastination are engendered in the mind of the budding obstetrician by the sight of this Oriental luxury? The Rotunda will have none of it. Home Rule would be less of a blow to the respectable Irish than would the introduction of bedroom window-blinds within the walls of the Rotunda be to the authorities of that great institution.

To spend three months as an intern pupil of the Rotunda Hospital is in itself a liberal education and very enlarging to the mind. There one meets men from all corners of the earth and of all degrees of civilisation: the doctor from the Western States of America, who sleeps in his underclothes with a six-shooter under his pillow, and would not be particular about his weekly shave but for the presence of the lady doctors; the missionary just returned from China, who knows all about the opium trade; the dashing army surgeon from India, who is fond of dancing and carries his handkerchief in his cuff; and, most interesting of all in March 1896, the man who was in South Africa last month and knows the truth about Jameson. And for the opportunity to study the habits of all these different characters by night as well as day there is no extra fee. This cosmopolitan assembly is presided over by three genial and accomplished gentlemen, the two Assistant Masters of the Hospital and the Extern Maternity Assistant; these three members of the Staff are the guides, philosophers and friends of the intern pupils,—guides in the wards, philosophers in the mess-room, and friends in general.

(b) Outside the Hospital one soon finds that some of one's preconceived ideas of the Irish must be abandoned. We who work at a hospital in London are likely to derive our ideas of Irish character from two sources, viz. the Irish we meet in the London slums, who are not favourable specimens of the Irish poor, and the Irish we hear of at Westminster, who do not represent the upper classes in Ireland at all. What wonder if we approach Dublin expecting to find a complete absence of refinement, and more drunkenness, brutality, dirt, and thriftlessness than we are accustomed to in London? Instead, we find the height of refinement and courtesy among the upper classes, and although in extern maternity work we see an amount of thriftlessness and dirt which is perfectly appalling, it is not appreciably worse than in the London slums. But the most striking characteristic of the Irish is (*pace* Mr. Harry Furniss) their hospitality; rich and poor, old people and small children, alike make one feel from one's earliest acquaintance with them, that one is among friends; the kindness of those who have it in their power to make one's

visit enjoyable is unbounded, and the same spirit is shown all down the social scale. The children playing in the gutter of a slum greet us on our first visit with an expression of face which an English child reserves for the visit of a favourite uncle, and if one absorbed all the fusel oil that was pressed upon one in three months by grateful fathers and grand-mothers, one would return to London with cirrhosis of the liver and granular kidneys. Any man who goes to the Rotunda for three months presumably has in view the one object of increasing his professional knowledge; but it is perhaps worthy of mention under the heading (b), merely as an observation of cold fact, that the average of female beauty is higher in Dublin than in London.

There are some customs connected with practice in Ireland with which we are quite unacquainted in England. It is apparently impossible to buy or sell a practice there, the reason given being that patients refuse to be handed over from one doctor to another; hence the only way to begin practice is to attract by any fair means one can the patients of one's fellow-practitioners. Again, in Ireland, as in all countries which are largely Roman Catholic, medical practice is curiously influenced in some respects by religion. Religion takes a far more prominent place in the daily life of a Roman Catholic than in that of the average Protestant, and the priest's advice carries a corresponding amount of weight with it. This influence of the priests is sometimes of the greatest advantage to the patient and the practitioner, for the priests are educated and for the most part intelligent men, whose advice to a refractory patient may save the doctor a lot of trouble, and lead to the patient getting the benefit of otherwise impossible treatment. As an example of this may be quoted an incident reported to me by the medical officer of a lunatic asylum:—A melancholic patient had refused absolutely to take any nourishment, reiterating that the soup provided was made of the bones of the Saints, and that it would be sacrilege to eat it. The priest, on hearing informally of the difficulty, at once convinced the patient that not only would the soup be of great temporal benefit to her, but that being made of such sacred ingredients it would greatly enhance her prospect of ultimate salvation. The soup was eaten, and the trouble and discomfort of a nasal tube avoided. Medicine and religion, however, do not always meet so amicably or successfully. So much is thought of the administration of extreme unction that the Sacrament is often received when death is by no means certain, and this is sometimes followed by a condition of inertia both of the patient and her friends in which the patient, like Mrs. Dombey, "will not make an effort," and the friends give up all attempts to feed her and merely sit round waiting for the wake. In one case, indeed, in which a distinguished obstetrician in Dublin was unfortunate enough to meet with a severe post-partum hæmorrhage, the friends becoming alarmed requested him to leave the room for a few minutes while the priest should administer extreme unction. This

the physician refused to do, and stayed and treated his patient, with the result that the hæmorrhage was arrested, and the patient made a complete recovery. The great importance attached to the baptism of infants, again, leads to curious results, and woe betide the doctor who allows a baby to die unbaptised. An intern pupil of the Rotunda recently baptised a dying infant at the request of its mother; the woman was overjoyed, and said, "To think of the number of babies that go to hell every year because the English doctors don't know how to baptise them." In another case baptism was the immediate cause of death; it was a breech presentation, and the "midwife," knowing enough to recognise the danger to the child, baptised the presenting part, with the result that violent inspiratory efforts were made, and the child was born dead though baptised. The religious objection to craniotomy is too well known to need mention here.

A striking feature about Roman Catholic Dublin is the virtue of the lower classes; it is quite an uncommon thing to find an unmarried woman in the Maternity Department of the Rotunda Hospital. Not long ago one who was interested in the subject looked through the records of the Hospital for one month, chosen by chance, and discovered that only two unmarried women had during that time been admitted to the Maternity Wards, and that both of them were English Protestants. What lying-in charity in London could show such a record?


A fact of practical importance about study at the Rotunda is the expense; to spend three months there costs from thirty-five to forty pounds, which includes teaching, board, lodging, washing, and railway fare from and to London.

Let no one who has the opportunity of going to the Rotunda fail to do so, for when the time comes to leave, one feels that a great gap in his education has been filled, it has been impressed upon him with fresh force that rough diamonds are sometimes the most valuable, and his gynaecological fingers are longer by an apparent inch and a half; nevertheless on re-entering at last the great gate of his Alma Mater, he feels renewed pride in his connection with St. Bartholomew's Hospital.

The Diagnosis of Strangulated Hernia.

By W. MCADAM ECCLES, M.S. (LOND.), F.R.C.S. (ENG.).

(Continued from p. 117.)

N the second and third papers on the diagnosis of strangulated hernia, it is proposed to pass under review cases in which the symptoms of strangulation are peculiar, and also the various conditions which may simulate strangulated rupture. Each series will first be given in tabular form.

I. Cases in which strangulation is actually present, but the symptoms are anomalous.

(1) Through conditions associated with the contents of, or changes within the hernial sac. (a) Nipping of a portion

- of the calibre of the bowel wall: (i) Partial entercæle; (ii) Strangulation of the vermiform appendix; (iii) Strangulation of Meckel's diverticulum. (b) Strangulation within the sac: (i) Strangulation by adhesions, &c., within the sac; (ii) Kinking of bowel within the sac; (iii) Retention of bowel within the sac.
- (2) Through conditions dependent upon the hernial sac itself. (i) Loculated sacs; (ii) Pouches sacs.
- (3) Through the presence of multiple hernia. (i) Two (or more) hernia, one irreducible, the other strangulated; (ii) Two hernia, one concealing the other; (iii) An inguinal and a femoral hernia on the same side, one strangulated and the other not.
- (4) Strangulation within the abdomen in a patient the subject of a hernia.

II. Cases in which the condition of strangulated hernia is simulated.

- (1) Cases in which a hernia is actually known to exist, but the symptoms are not those generally referable to strangulated bowel. (i) Strangulation of omentum; (ii) Obstructed or incarcerated hernia; (iii) Inflamed hernia. (a) Sac and contents; (b) Sac alone; (iv) Strangulation of ovary and Fallopian tube; (v) Colic in a person the subject of hernia; (vi) Vomiting of pregnancy in a woman with a hernia.
- (2) Cases of inflammation of the inguinal or femoral lymphatic glands. (i) Acute adenitis altogether apart from a hernia; (ii) Inflamed or enlarged glands obscuring a small strangulated hernia; (iii) Inflamed glands associated with an irreducible hernia.
- (3) Conditions dependent upon the testis, and its annexa. (i) Acute inflammation of testis or epididymis in the scrotum; (ii) Inflammation of a partially descended testis; (iii) Inflammation of the spermatic cord; (iv) Torsion of the spermatic cord.
- (4) Other conditions—(i) Peritonitis; (ii) Enteritis; (iii) Blood in ligamentum teres.

Perhaps the class of cases in which strangulation is actually present, but in which the symptoms are otherwise than typical of a strangulated hernia, are the most important from a diagnostic point of view, and require to be carefully and separately studied.

The first group of these cases have anomalous symptoms which are dependent upon peculiarity of the part of the bowel strangulated or to certain changes within the hernial sac.

Partial entercæle, or the nipping of a portion of the circumference of the bowel wall, is sometimes termed Richter's hernia, but should more properly be designated Lavater's* hernia. Such hernia also constitute one variety of so-called "masked ruptures."

The points in which a strangulation of only a part of the intestinal wall differs from the symptoms produced by a nipping of a complete loop of bowel may be stated to be the following. Constipation is but rarely complete, flatus and some fecal material often passing the seat of strangulation, to be expelled from the lower bowel. This is obviously due to a passage way still remaining, though this may become very narrow owing to the congestion of the mucous membrane which ensues.

Vomiting is not so urgent, and only in about half the cases does it become stercoraceous if the strangulation go unrelieved. A tumour at the site of the protrusion is often undetected owing to its small size, although some resistance, pain, and tenderness may be found in the region.

Strangulation of the *Vermiform Appendix*, again, produces symptoms which are rarely those of a true strangulated hernia. The action of the bowels may be unaffected, or diarrhoea may be present. Vomiting is seldom persistent, and scarcely ever stercoraceous. In a case which was under Mr. Langton's care † a woman aged 46, who had had a right femoral hernia for twelve years, was suddenly seized with griping pains, followed by loose motions, and the passing of much flatus by the mouth. Vomiting came on, but never progressed beyond becoming bilious in character. The hernia was cut down upon, and the appendix, which was the sole contents of the sac, and very tightly gripped, was removed. The patient made an excellent recovery.

A strangulation of *Meckel's Diverticulum* is sometimes termed Littre's hernia, since this surgeon described two cases in 1700 which were probably of this nature. Such a hernia is rare, and a strangulation still rarer. When this occurs there will be very similar sym-

* Lavater's account was written in 1672, although not published probably till 1755, while Richter's was not finished till 1799.

† *St. Bartholomew's Hospital Reports*, 1891, p. 179.

ptoms to those produced by partial enterocele, especially when the diverticulum is short, or it is strangulated not far from its origin from the bowel. Probably in these cases some kinking of the intestine due to the gripping of the diverticulum in the mouth of the sac may result, and still further enhance the likelihood of symptoms of strangulated gut. Stercoraceous vomiting and complete constipation may be present in certain cases.

The next division of the anomalous cases are dependent upon strangulation occurring, not by pressure of the tissues without the entrance of the sac, nor by the neck of the sac itself, but within the cavity of the sac. This condition might be termed internal strangulation, but should be clearly distinguished from internal strangulation within the peritoneal cavity of the abdomen itself.

Adhesions of the sac between the contents of the sac and the sac wall, or between different parts of the contents themselves, apertures in omentum or mesentery through which gut may slip, Meckel's diverticulum attached to the inner surface of the sac wall,—any of these conditions may give rise to such internal strangulation. Again, the loop of bowel within the sac may become kinked, being bent by being tied down by an adhesion at one spot. Lastly, volvulus may occur, the length of bowel constituting the contents of the sac rotating around its own axis.

The fact of utmost importance to remember in such cases as the above is that while there is strangulation of the most severe character, yet in most instances there will be no loss of expansile impulse in the sac. For the prevention of such impulse it is necessary that the bowel be constricted quite high up in the sac, in fact at its mouth, and that the nipping be so effective that the communication between the sac and the abdomen is entirely shut off. If, however, the constriction occur anywhere below the external abdominal ring, or within the sac, it is obvious that an expansile impulse may yet remain. A knowledge of this fact may prevent a very serious error on the part of the surgeon, who, finding an impulse, may consider that strangulation is not present although the other symptoms are marked. The rule to be followed in all cases is, given a patient who exhibits signs of intestinal obstruction and who is the subject of a hernia, explore the rupture first of all.

In the second group, the sac of the hernia is the factor which gives rise to the conditions which lead to the abnormal symptoms. Loculated and pouched sacs are by no means rare. The production of such is the outcome of one of several causes which may be in operation. Sometimes adhesions separate off portions of the main sac; at others, parts external to the sac,—as, for instance, the cribiform fascia in a case of femoral hernia,—press upon and constrict certain parts so as to produce pouches. Occasionally membranous folds project into the sac in the form of partial or nearly complete diaphragms. It is probable that these, as has been pointed out by Mr. W. H. Bennett, occur solely in inguinal hernia, and in those which are congenital origin. Pouching may, moreover, be brought about in fibres upon the concave inner areas of the wall of the processus vaginalis. Again, Mr. Lockwood has suggested the theory that branches of the spermatic artery supplied to the peritoneum must necessarily take a recurrent course when the testis reaches the scrotum, and thus these may drag down a portion of the wall of the processus vaginalis and thus a diverticulum is produced. Local projections of the sac may also arise by unequal dilatation of the sac. Lastly, taxis applied with immoderate force is credited with the production of diverticula from the sac.

It will be easily understood that if a loculated or pouched sac be present, and especially if the entrance into the diverticulum be narrow, there is an ever-ready possibility of a knuckle of bowel slipping into it, and thereby becoming strangulated. In such a case there may be distinct expansile impulse over the larger portion of the rupture, which contains contents quite unimpeded, and so capable of giving impulse. In some cases a part of the hernial swelling may, on careful examination, be found to be tender and tense, thus giving rise to the suspicion that this is the seat of the strangulation.

The third group consists of cases in which more than one hernia exists in the same patient, and owing to one being strangulated and the other not, uncertainty may arise as to which is the rupture in which the bowel is nipped. This is particularly the case when both hernia are irreducible, but the irreducibility in one is due to strangulation.

In such a dilemma, it is important to bear in mind that even in the rupture which is the seat of strangulation, the symptoms may not be typical, but here again local tenderness and tenseness may be a clue as to which hernia needs prompt and active treatment. There may be even three irreducible hernia in one subject, a condition which may still further complicate matters. This would require exploration

of each in turn, if by no other means a conclusion as to which is the strangled one can be arrived at.

Another very interesting condition which may be present is the fact of one hernia obscuring another, the hidden one being strangulated. It is not very uncommon for a protrusion to pass through the linea alba a short distance above the umbilicus, and for it to be overshadowed by a true acquired umbilical hernia. If the former become strangulated, this fact may be difficult to determine by local examination. Lastly, if an inguinal and a femoral hernia occur on the same side, and particularly so in an obese patient, the local symptoms produced by the strangulation of one may be masked by the obvious signs pointing to non-strangulation in the other. Such states demand the closest of examinations, which will, however, in most cases reveal the dangerous condition in which one of the hernia is.

Under the fourth heading are included cases where a patient, the subject of one or more hernia, is also suffering from intestinal obstruction, the result of strangulation within the abdominal cavity. In these the hernia will probably show no signs of any sudden and recent change in character, and none of the local signs of strangulation will be in evidence.

Such cases may occur on account of the very presence of the hernia having caused adhesions, often of omentum, to form at or near the mouth of the sac under which a loop of intestine may pass.

In other instances, strangulation by a band, strangulation by a loop of gut passing through an aperture in the omentum or mesentery, or the nipping of a knuckle of bowel in one of the peritoneal fossae, may account for the obvious signs of intestinal obstruction, although nothing noticeable has taken place in the hernial sac which the patient possesses.

An instance of internal strangulation associated with double inguinal hernia, I have elsewhere recorded.*

It is a good rule in all this group of cases to explore the hernial site first of all if there is the slightest suspicion that strangulation exists in connection with the sac, and to forthwith perform laparotomy if no such cause of obstruction be found to exist.

(To be continued.)

Training.

By PERCY FURNIVALL, F.R.C.S.

A Paper read before the Abernethian Society on January 30th, 1896.



PROPOSE to discuss with you to-night chiefly the physiological principles which are the basis of training, for I think this side of the subject has been overlooked to a large extent. I shall take my topics in the following order:—1. Definition; 2. History; 3. Changes in the tissues and organs produced by training; 4. Physiological analysis and classification of exercises; and lastly, 5. The modern methods of training.

1. We define training as a procedure whose object is to render a man or animal, as completely and quickly as possible, fit for the performance of a given work. The word "training" is often used in a wider sense; thus divers are trained in order that they may be able to hold their breath long under water; jockeys in order to make them lighter; while cerebral training improves a man's understanding.

To be "trained" implies that the organs of the body have undergone modification. We may believe that the brains of some men of science differ from those of porters; but we are certain that the bodily form of a prize-fighter in perfect condition is not the same as that of a sedentary student. A man in training acquires a new conformation which gives him special aptitudes; but in nature he is unchanged, and if he returns to the mode of life he relinquished when he began training, he soon loses all the powers he has gained. An active and laborious life is in itself enough to bring about fitness for work and power of resisting fatigue, without any necessity of observing the hygienic and dietetic practices recommended by trainers.

For instance, wolves have no need to abstain from certain articles of food, or to limit the amount of water they drink, in order to make their muscles as hard as iron, and to have lungs to which breathlessness is unknown. But we must realise that, to the ordinary man, the benefits derived from work are gained with astonishing rapidity, when the athlete submits to a certain regulation of diet, and to certain accessory hygienic performances which make up the method known as "training."

* St. Bartholomew's Hospital Reports, 1895, p. 177.

2. Let us hear what competent observers have to say about the results of systematic training. Royer-Collard read a paper before the Academy of Medicine in Paris in 1842 on the condition of a British prize-fighter. I proceed to quote from Lagrange's *Physiology of Bodily Exercise*, an excellent book, and one I can very heartily recommend: many of my own ideas have been taken from it.

"The man who has been trained has not sensibly lost weight, unless he was very fat before he got into 'condition.' Usually, indeed, he weighs a few pounds more, but his limbs have singularly increased in size. His muscles are hard, prominent, and feel very elastic; they contract with extraordinary force under the influence of an electric shock. The abdomen is retracted, the chest expanded, breathing full and deep, capable of long efforts. The skin is firm, sleek, free from all eruption. We notice that the skin over the axillary regions and the sides of the chest does not tremble during the movements of the arms; it seems to be perfectly adherent to the subjacent muscles. This firmness of the skin and density of the cellular tissue, resulting from the absorption of liquids and fat, oppose the formation of effusions." (*Comptes rendus Acad. de Médecine.*)

Let us see what the author says about the powers in fight of these men whom we have just described. "Prize-fighters are naked to the waist, and try to strike their adversary with all possible force anywhere between the head and umbilicus. If one of them is knocked down, dizzy from a violent blow, he is allowed a minute's rest. Before the whole minute has passed, he gets up and goes on fighting, or he is declared beaten. Ordinary fighters, in a fight of an hour and a half, stop in this way thirty or forty times. The combat may last for some minutes to four or five hours. We may imagine that serious injuries and even death may be the issue. Sad instances of this have occurred, but they are extremely rare. Usually a few days afterwards there are no traces of these terrible blows. A prodigious strength, a singular skill, and incredible insensibility to blows, and at the same time perfect health, such are the phenomena presented by these men, so very different from other men."

What process did a man undergo in the good old times in order to acquire these extraordinary powers? To begin with, he was first subjected to "free pugilation," then put on a diet of semi raw flesh, stale bread and a few vegetables, with a very small quantity of liquid. His work was of a most severe nature, varied with forced sweatings.

I borrow a quotation from MacLaren's *Training in Theory and Practice*. "If the person trained, after the second week, exhibits signs of irritability he must be bled and purged well, and take a dose of powerful cathartic. Vomiting may be used when the stomach is foul, to get rid of the crudities not cleared by the purging. This radical cleansing is absolutely indispensable to bring the organs of digestion to a healthy state of action." One would think that this would cure any ordinary Britisher of irritability. But no! In addition the poor man is to swallow "one grain of tartar emetic with 20 grains of ipecacuanha, worked off with camomile tea." Naturally, sometimes men "trained off."

Of course, one might say, "See what things men so trained have accomplished!" The truth is, that men who were able to stand this were able to stand anything. Needless to say that scientific knowledge of the physiology of bodily exercise has changed all this; and we now do not believe that it is necessary to half kill a man in order to get rid of his "crudities" before starting to get him into condition. What modern training can accomplish has been well shown by the recent match between the London Athletic Club and the New York Athletic Club. Not only were our men beaten in every event, but several new World's Records were established. Another forcible example is the rise of Welsh Rugby Football, and the marked change that has taken place in the Association game. I could go on multiplying these examples *ad libitum*, and they would all show the result of scientific knowledge and thought about the best way of generating and applying muscular force.

In America, every college has attached to it one or more medical men who have made a special study of the physiology of bodily exercise. They direct the entire physical education of the students. Surely this is a move in the right direction, for can an education which attends to a man's mind *only* be called a complete one? Does it produce men in the best sense of the word? In the United States if a lad comes up to college with a poor physique and deficient chest-measurements, he is put through a carefully regulated course of measurements, he is put through a carefully regulated course of exercises in the gymnasium and in the playing fields until his physical shortcomings have ceased to exist. If this practice could be universally carried out, the standard of a nation would probably be raised mentally as well as physically.

3. I said at the beginning of my paper, that "to be trained" implied that the organs had undergone modification. How does this come

about? Physiologists say that "function makes structure;" this is well shown in the case of an unreduced dislocation: a new joint is gradually formed in the abnormal position occupied by the head of the dislocated bone. In just the same way muscular work modifies the nutrition of all the motor organs, and gives them a structure favorable to the performance of movements. How is this done?

The first effect of muscular exercise is to render the vital combustion more active, and so diminish the quantity of the tissues on which these combustions feed. At the same time it causes a more active process of assimilation. These losses and gains, if balanced in quantity, do not take place in the same tissues, for muscles increase, and fat disappears. This facilitates muscular work for the following reasons: firstly, it lightens the body of material useless for purposes of movement; secondly, fat is a cause of excessive heating of the body, because its low power of conduction will not allow of the rapid cooling of the blood; thirdly, because fat easily undergoes dissimilation and sets free waste products. This is confirmed by the fact that, other things being equal, fat men lose their breath more readily and perspire more freely than thin ones. These statements are not always correct, for some few men and horses "train fat." In these men a certain amount of fat forms an integral part of the system, and cannot be lost without at the same time lessening their power of resistance. This fact is pointed out by Stonehenge in his excellent work on training race-horses. In some men, then, fat is a constitutional tissue; in others, it is merely a reserve tissue to be consumed at the first demands of the system. Trainers often say that the diminution of breathlessness in a trained man is due to the greater freedom given to the lungs by the removal of "internal fat." It is more truly due to the lessened susceptibility of the heart and respiratory centres to the result of muscular action. "Stiffness," felt in the muscles after exercise, is probably partly due to an excess of the waste products of metabolism, partly to ineffective nutrition of the muscle fibres, and in some cases of prolonged stiffness, to minute muscular lesion.

Heat is an important factor in exercise, "the hotter the day, the faster the time," is an athletic platitude. Montague Sherman, in his admirable article on "International Athletics" in the fifth number of the *Badmington Magazine*, gives this as one of the reasons for the splendid performances of the New York Athletic Club team in the recent match. We cannot use our muscles when the limb is cold; on a frosty day, fingers grow numb. Heat causes in muscular fibres an aptitude for coming into action more quickly under the influence of the will. We recognise this when we say that a man has "warmed to his work." Preliminary sparring at boxing, and the preliminary canter in a horse race, are examples of the fact. Of course there is a limit to this, for excessive muscular work can raise the system to a temperature at which the body can no longer live. This is one of the reasons why a driven animal dies. The condition is similar to a man with sunstroke.

We say that exercise "hardens" a man; this is literally true. Work produces, in all the tissues of the body, changes of nutrition, which consolidate and make them more resistant and firm. Very soon one's hands no longer blister from gripping an oar; and a well-trained boxer hardly feels a blow with the fist, his tissues have become so hard. Also the bones increase in size and density; you can easily tell, by looking at a bone, whether the person to whom it belonged led a life of muscular activity, or physical idleness.

The heart, besides gaining by well-directed exercise a structure more favourable to work through being freed from fat, also learns to beat more regularly. It tends to lose that excessive excitability which in an athletic novice promptly disturbs its regular action on the slightest change in the temperature or pressure of the blood, and it no longer becomes uncontrolled when violent exercise is performed. This education of the reflexes by exercise is still better exemplified in respiration. Old athletes gain control over the reflex respiratory movements to a very large extent. They take very deep respirations, while novices, obeying blindly the needs of their inexperienced lungs, get out of breath by rapid shallow movements of the thorax. This is an important fact, and greatly retards the onset of fatigue. That the effect on the heart is the most necessary of the two, is shown by the fact that a delirious pneumonia patient can get out of bed and walk about, while a bad heart case never does.

Moral impressions also influence the rhythm of respiration strongly. In a frightened man defects of co-ordination show themselves both in speech and breathing; a sort of stammering respiration is set up. "It quite took my breath away" is a common expression. Unless a man has great self-control and can keep cool, the fear of being beaten, the annoyance of seeing himself passed for a moment, may considerably diminish a novice's breathing powers.

Exercise has a stimulating effect on all the organic functions, because it renders the circulation in all the organs more active. All

the phenomena resulting from moderate cerebral congestion are shown after exercise. A young lady dancing becomes animated, and could entirely forget fatigue and dance all night; in fact, a quarter of an hour's walking has the same effect on her as a glass of champagne. This excitement produced by movement, may, as the result of active congestion of the brain, pass on to wild excitement, as in the war dances of savages and the contortions of dancing derwishes. This may be one of the causes of the regrettable squabbles on the football field, a sort of intoxication very like the well known alcoholic variety being produced.

It is more than probable that certain parts of the brain which preside over voluntary movement are developed by training, and though it is difficult to prove by direct arguments that psychical faculties are influenced by muscular work, it is unquestionable that certain qualities are improved and developed by exercise. The faculties which preside over the co-ordination of movements are undoubtedly developed by the performance of difficult exercises, owing to our muscular sense. Their improvement gives a man the quality we call skill or knack. The action of antagonistic muscles produces stiffness of movements, a fault in all beginners. All of you who have faced our redoubtable Professor Alec Roberts in the boxing ring, know his cheering "Let your 'left' go, sir," and "Where's that right arm?"—as you fall to stop his "left" with anything more suited for the purpose than your face.

A man unskilled in the exercise he is doing expends two or three times the necessary amount of force. Every movement needs an apprenticeship, because there are no isolated movements; all are associated.

The "will" is also developed and improved by the repeated use of it as a motor force, and a man who, daily, in spite of the different discomforts of fatigue, sustains energetic and prolonged muscular efforts, acquires a greater power of "willing," and, as a result of this, certain changes in his moral disposition which we may call physical courage. Physical courage is increased markedly by the habituation to bodily exercise; it helps a man to brave all forms of material danger. The most remarkable proof of this is shown by prize-fighters. We read in *Roxiana* of a man fighting on for an hour and a quarter after his left arm had been broken, and another continuing the combat for nearly an hour with a broken jaw.

It is well known to all of you that muscle has great vital energy, and long retains the power of action, provided that it receives sufficient stimulus. In most cases the loss of power of action shown by a fatigued man is not due to the muscular system, but to the "will"—the stimulus of muscular contraction—which gives out under the influence of prolonged work long before the muscle has lost its contractile powers. One sometimes sees a vigorous man lose his muscular power all at once when his "will" is paralysed by a depressing emotion, such as fear. An exciting passion, like anger, on the other hand, increases muscular power because it stimulates the "will." This explains the great difference between the capabilities for work of two equally muscular men: one, better gitted in the matter of "will," can produce from his muscles a force which the other leaves in them latent.

The spinal cord undoubtedly gains increased powers of automatism by constant practice. This is seen in the performance of difficult and rapid movements. In most sports, but specially in boxing and fencing, actions often have to be performed so quickly that there cannot be time for the successive co-ordination of all the movements. Until a man can perform them automatically, he can never hope for success against a first-class opponent.

How is a man to know when exercise has ceased to be healthy work, and is becoming a source of danger to him as over-work? Fatigue shows itself differently in trained and untrained men. The sensory organs being unable to eliminate the waste products of metabolism he suffers from an auto-intoxication, shown by either a febrile condition, sometimes of great severity, or a general nervous prostration and lowering of all the functions. The trained man becomes "stale;" this means that the excessive work he has undergone has consumed not only the reserve materials not directly concerned in movement, but that the combustions have attacked the man himself, considered as a machine, and his muscular tissue.

A well-trained man presents a perfect balance between income in the form of food, and expenditure, in the form of work. If a man takes violent exercise, and his nutriment is proportioned to the work, the system can regain its losses; and as the work has a tendency to distribute the assimilated materials to the organs participating in the action, the muscles become stronger. But if insufficient food is taken, or what comes to the same thing, if the nutriment introduced into the stomach is not assimilated, there is a disproportion between the

expenditure of energy demanded by the animal machine, and the quantity of fuel supplied to it from without. Now, movement cannot take place without heat, and heat cannot be produced without combustible materials. Thus, in default of sufficient food, when the reserve materials have been consumed, the essential organs of life have to serve as fuel. The result is known as becoming "stale."

It is a fact that different exercises produce different effects on the system. Hence the use of a rational classification of the various exercises, and the necessity of choosing that which will produce the effect desired.

Practically we shall classify muscular work under the headings of (a) exercises of strength, (b) of speed, and (c) of endurance.

(a) We call exercises of strength, those in which each movement represents a great quantity of work, and demand the simultaneous action of a large number of muscles, and in which every muscle used brings its whole force into play. To produce this result, it is necessary that the muscle should have a very firm attachment to a fixed point of the skeleton. Now the bones of the skeleton being movable on each other, it is impossible for a man to use his whole strength unless he holds it into one solid piece by contracting every muscle in his body. Watch a man lifting a very heavy weight. He takes a deep breath, his whole body stiffens from head to heel, even his facial muscles share in the general rigidity. He must use his whole muscular power and will. This is called effort. The rigidity of the thorax necessarily stops respiration; and as the action of all the muscles produces a large amount of waste products, breathlessness very quickly results. This stops a man long before his muscles are fatigued. Wrestling is the only sport in this class of exercises of strength. Of course, tricks and feints are a large part of wrestling; but when two men of fairly equal strength have really gripped, an enormous amount of muscular force is used. Exercises of strength are favorable to all the nutritive functions. The nutrition of muscle is better in slow contractions, because the flow of blood is more regular and prolonged. The nervous system is not fatigued, as it is in exercises of skill or speed, for there is not the same amount of co-ordination or frequent repetition of movement. That these theoretical considerations are based on facts, is proved in the persons of navvies and others who take work in large doses. The danger is strain of all kinds, muscular and organic, e.g. hernia, dilated heart, &c. The work done in these exercises must be increased gradually, otherwise the reserve materials will undergo a too rapid dissipation, and an excessive quantity of waste products will be produced, causing auto-intoxication. This explains the fevers of over-work, specially frequent in artillery recruits. If a man wants to get from his muscles a quantity of force, out of proportion to their contractile power, he makes an effort of will, and expends a lot of nervous energy in exciting more powerfully his weak muscular fibres. He can thus perform a work beyond his strength; but it is by taking "from his nervous system" that which his muscles are unable to give. This leads quickly to nervous exhaustion; the man gets thin, eats and sleeps badly; and however well he is fed, he soon breaks down.

(b) We call those exercises which need the very frequent repetition of muscular movement, exercises of speed. A man who goes slowly up a staircase with a heavy burden on his shoulders is doing a work of strength. A man sprinting on a cinder path is performing an exercise of speed. Both of them do a great quantity of work in a very short time, one by slow movements, each involving a great expenditure of force; the other by rapid movements, each representing a very much smaller quantity of work, but accumulating in the end to a considerable expenditure of force. Among the ancients the exercises of speed always held first rank. Running was regarded as a criterion of athletic superiority; and one of the chief characteristics of Achilles in Homer was his quickness on his feet. The increased activity of the respiratory function is the same as in exercises of strength, but the fatigue of the lungs and heart is less, owing to the absence of effort. The muscles will not develop so much, because the flow of blood through them is less than it is in slow, intense contractions. Observation of actual facts bears this out. Every one knows the enormous muscular development of the "strong men" at fairs; also that professional runners and fencing masters are generally slender and thin. On the other hand, exercises of speed develop more than any others the size of the chest; and no exercise improves the breathing more rapidly than long-distance running. The difference in irritability of muscles of different men is very noticeable. To some of us, rapidity of movement is natural, and demands no great effort. In others, a great expenditure of nervous energy is necessary to produce it.

These differences are often racial; the quick, springy step of a Southerner contrasts forcibly with the deliberate stride of a North-

enor. English and German fencers have never been as good as the French and Italians.

The fatigue which follows exercises of strength is felt mostly in the muscles; that which follows exercises of speed is a kind of exhaustion accompanied by nervous excitability or prostration, which often prevents appetite and sleep. The great expenditure of nervous energy that speed exercises require, often causes loss of weight, in the same way that a man rapidly becomes thin under the influence of continued mental distress or very sustained intellectual work. This is probably due, not so much to excessive expenditure, as to defective repair.

The amount of work got through may be very large; and unless a man is well trained, the nutrition of his muscles being ineffective during work, "stiffness" is produced. From this fact we can explain why young folks stand speed exercises better than those of endurance, for the adaptive power of their respiratory organs allows them to eliminate most of the waste products of metabolism rapidly. But they cannot stand any long-continued work, because dissimilation is much more rapid in children than in adults, for young tissues have less stability than adult tissues; and the ineffective nutrition of their muscles, plus the accumulation of some of the waste products, causes febrile "stiffness" and signs of overwork. Young soldiers are excellent for rapid manoeuvres, and veterans for endurance.

(c) We call exercises of endurance, those in which the work must be continued for a long time. The muscular effort must be slight, and the movements not too rapid, in order that no appreciable disturbance may be produced in the system. It is difficult to classify exercises under the heading of endurance. For example, walking—a typical exercise of endurance—may in racing become a speed exercise, or in mountaineering almost an exercise of strength. Again, what to one man is an exercise of strength or speed, may be to a stronger or better trained man an exercise of endurance. Some men have extraordinary powers of resistance, or "staying power," due chiefly to respiratory capability. In order that an exercise may be long continued, it must not cause breathlessness. We can go on walking in spite of weary legs and sore feet; but we cannot go on running when we are out of breath. Unless a man can eliminate the excess of waste products as fast as they are formed, he gets intoxicated by them, and has to stop. Physiologically, the effect of exercises of endurance is to stimulate all the organs, and to allow the system to repair, even during work, most of the disturbances which occur in which force all the air-cells of the lungs to open out, and so do not modify the shape of the chest and enlarge its capacity as exercises of speed do.

The true cause of this fever or prostration from over-work is often overlooked, and other causes are sought for to explain it. For example, in the case of cyclists it was put down to vibration; but the vibration on the foot-plate of a locomotive is far greater than that on a cycle, and yet engine drivers do not suffer from it. The real reason why pneumatic tyres to a great extent overcome this trouble is that they, roughly speaking, reduce the amount of work done by one third.

Having studied the broad classification of exercises and their effects, let us see how they may be applied by our would-be athlete. Is his chest flat? Has he no staying power? Does exercise make him stiff, and leave him with aches and pains for days afterwards? Well, muscular work is a regulator of nutrition which will enable him to get rid of his stored reserve materials, or will stimulate his cells to increased activity, arouse his sluggish functions, increase his weight, and make him a healthier man. If his chest is flat, exercises of speed and strength will increase its capacity. Speaking of the mechanism of exercises possessed by many medical men. A course at a gymnasium, or dumb-bell work is generally recommended. This will increase the thickness of the thoracic parietes, but the cavity will remain small. It is the intra-thoracic space which must be amplified in order to increase the respiratory power. Now there is only one way of increasing this space, and that is, to increase the volume of its contents, the lungs. After the absorption of pleuritic effusions, when the lung is tied down by adhesions, the chest flattens, however strong the inspiratory muscles may be; and, *vice versa*, in emphysema, the lungs raise the ribs without the aid of muscles. Singers, with no other exercise but singing, acquire great respiratory powers and a remarkable increase in the dimensions of their chests. No: running for a boy, and skipping for a girl, are the best means of developing the chest.

Let a man of poor physique acquire a good one before he starts on any serious competitive work; and, above all, let him be sure that he is free from any organic disease. If this were always done, we should

hear less about the evils of sport. All of us have seen men utterly unsuited for any form of severe muscular work, playing football, boxing, and rowing in scratch eights. Naturally the results are often disastrous.

The branch of athletic sport that a man takes up is a matter of taste, probably largely influenced by his physical conformation and of natural aptitude. Generally speaking, most strong, healthy men like football. Boxing and cricket require in addition very quick sight. An oarsman needs staying power, and a strong back and thighs. A sprinter must possess great power and determination. A long-distance runner, a medium weight and a proportionately large thorax. Fencers and jumpers a peculiar nervous temperament, and very irritable muscles. Gymnasts and swimmers, medium size and good general muscular development. For weight-putting, hammer-throwing, and feats of strength, exceptional size and large muscles are required. Taking all things into consideration, combined sports like football, cricket, and rowing are the best. A man learns discipline, the sacrifice of individual interests for the common good; and he gets a sense of hearty good-fellowship and trust in the rest of his team or crew that can hardly be obtained otherwise. In fact he gains the quality we call "staunchness." The form and amount of training that a man must undergo will vary somewhat in the different branches of athletics. Necessarily his preparation must be more complete and careful for running than for cricket. It must also vary according to the bodily habit of the individual; the spare man of nervous temperament requiring less preparation generally than the stout sanguine one. But in all cases its general principles are the same; and if I can make these clear to you, you will not need to be told exactly how many ounces of this or that you are to swallow in the twenty-four hours. Most trainers and books tell us little about the training of the nervous system; yet before all others this is the most important. Judgment—or in other words, the knowing one's own capabilities to a nicety,—and the self-control necessary to make a man hold himself in at the beginning of a race, so as to have a bit up his sleeve for a tight finish, or the last quarter of an hour of a match; the determination necessary to get the last ounce out of himself, and the instantaneous diagnosis of the psychological moment when he is to do so,—all these things can be acquired; but how is a man to train his nervous system to attain them? That it can be done, is proved in the persons of all the finest athletes. Necessarily the nervous system must be largely allowed to train itself. It tells a man when he is fagged very clearly; never disregard its warning. With time, practice, and determination, increased power and improved co-ordination of muscular action will result.

Judgment can only be acquired by experience. Performing in company of better men than oneself, always taking every opportunity of seeing, and carefully thinking over, the methods of the best exponents in the particular branch of abilities that you wish to excel in, these and these only will enable a man to take one of the highest places in the athletic world. One sees the results of neglecting these principles so often in a sport that I am very fond of, viz. golf. Two men begin; the one kept only to win every game he plays; the other anxious only that he should apply his force in the best possible way, and acquire good style and judgment. The first man wins all the matches at the beginning of the couple's golfing career, because he is content to get the ball along anyhow; he improves up to a certain fixed point, limited by his style and judgment; then he may play regularly all his life without further progress. The other man acquires, regardless of immediate failure, the way of getting the best possible result from his muscles, and he then rapidly improves up to a point limited only by the amount of practice he can get and the judgment he possesses, sooner or later quite outclassing his old opponent. A good "grounding" is just as essential in physical as it is in mental education. Every man must be a guide unto himself as to the amount of muscular exercise he requires; for it varies greatly with different individuals. I have said before that so long as a man's income as to food, and his expenditure as to work, are balanced, nothing but good can result. If a man is not improving under his course of work, let him look for the cause: it is very probably lies in faulty style. Now as to his mode of life: to change a man's habits suddenly, even if the change be for the better, is not always judicious. Let the changes come gradually. Let him take eight or nine hours' sleep on a moderately hard bed, without being smothered with blankets; and keep fresh air in his bedroom by always having the window a little open. Directly after he gets up should come a cool tub, or a plunge and a short swim in the summer, followed by a brisk rub down with a rough towel. Do not forget that a bath has two distinct objects, cleansing and tonic action.

Dabbling about in cold water when you are heated by exercise

never did anybody any good; but a quick plunge or cold shower-bath is a powerful tonic.

As to clothes, nothing is so good as wool; remember that a trained man has little or no subcutaneous fat, so cools down rapidly and is liable to chills, and catches cold easily. A good test of material is whether you can breathe easily through it. If this is an effort for the lungs, then it is a still greater effort for the skin.

Now as to diet; nature tells us how much food we require. When your natural appetite has been satisfied with good plain food, you have had all that is necessary for the restoration of the tissues. Have no pickles or sauces on the table; they stimulate to eating beyond the true appetite. It is best to limit the meal to two or three courses, as a too great variety of foods, possessing different flavours, also stimulates to over-eating.

Most men cannot digest certain articles of food comfortably; avoid them, and do not tax the energies of your digestive organs with substances giving no adequate return for the labour. One of the most celebrated athletes we have ever had at Bart.'s—I allude to Mr. Budd of "Rugger" fame,—once said at a football dinner that lurching at the bun shop produced "amyloid degeneration"; this is true from an athletic point of view, if not from a pathological one.

The amount of liquid to be drunk should be, to a large extent, regulated by nature's desires, bearing in mind that no more should be taken than the stomach can readily absorb. There are three kinds of thirst. Firstly, general thirst, which is the expression of the demand for liquid experienced by the whole system; for this the cure is drink; non-alcoholic liquid is best. Secondly, local thirst, caused by the rapid breathing of warm air impregnated with dust, drying the mucous membrane of the throat and pharynx. Washing out the mouth freely and drinking a little water slowly will quench this. Thirdly, non-athletic thirst, caused often by the presence in the stomach of some irritating article of salted or spiced food; this requires fluid for its dilution.

It is a vexed question whether stimulants should be allowed to a man in training, or not. Most authorities say no, and on the whole I agree with them. Undoubtedly, at the end of a long and trying race, alcohol will stimulate exhausted nature to still further efforts; but it does not create nervous power, it merely enables you to use up that which is left, and then leaves you more in need than you were before. To a man accustomed to smoking, a pipe (I make no mention of its size) at the end of the day's work surely does no harm, and sends him to bed in a contented frame of mind. After exercise a man should be well rubbed down with a rough towel; this aids nutrition considerably, and keeps the skin in good order. The astringent lotions and embrocations that many athletes are so fond of anointing themselves with are quite useless, and should only be used when counter-irritation is required. As to actual competition, keep your eyes open and think. Take advantage of any mistakes in judgment that an opponent may make, and if necessary save yourself as much as possible for a final effort; always try your hardest to win, and never forget that you are a sportsman and a gentleman.

Notes.

THE BRACKENBURY MEDICAL SCHOLARSHIP has been awarded to J. Hussey. G. Wedd is *proximo accessit*.

THE BRACKENBURY SURGICAL SCHOLARSHIP has been divided between G. V. Worthington and H. Williamson—*equales*. J. P. Maxwell is *proximo accessit*.

THE BENTLEY PRIZE for Reports of Surgical Cases has been awarded to T. J. Horder.

H. T. MAW has taken the degree of M.D. at Cambridge, and J. M. Wrangham that of M.B.

THE Eighth Decennial Contemporary Club of St. Bart.'s Hospital will hold its next dinner on Wednesday, July 8th,

at 7.30 p.m., at the Café Royal. The Secretaries inform us that several old Bart.'s men have written complaining that they have received no intimation of the existence of the Club, and ask us to state that notices have been sent to all men as they have become qualified. Anyone who joined the Hospital between 1885 and 1895 and subsequently became qualified may become a member by writing to one of the Secretaries, Dr. A. A. Kanthack and Mr. H. J. Waring.

DR. CARLYON, an old Bart.'s man, in practice at Yarmouth, Isle of Wight, has unfortunately been compelled to give up his practice on account of failing health. Dr. Carlyon has always taken a very keen interest in the affairs of Yarmouth, and it will not be an easy matter to fill the prominent place he occupied. His friends and patients have presented him with an illuminated address and a purse containing £112 10s. as a token of their appreciation of his work.

MISS VOGAN asks us to express her thanks to the old Bart.'s men who voted for her nephew at the recent election at the Royal Medical Benevolent College. R. T. N. Vogan polled 4230 votes and headed the list of unsuccessful candidates; he will be a candidate again at the election next May, and will, we hope, be successful.

AN interesting account of the life of Dr. Salmon, of Penlyn Court, Glamorganshire, appears in the June number of *Health News*. Dr. Salmon died on May 10th, 1896, at the age of 106 years and 2 months. He was an old Bart.'s man, and had lived an active life till within a little of the end. It is interesting to notice that he drank about a quart of ale every day, a pint at midday and a pint with dinner. He drank wine regularly, preferring port to all other kinds, but became a water drinker for the last week of his life. He was not much of a smoker, but occasionally smoked cigarettes.

SPECIAL attention is drawn to the Mid-Sessional Meeting of the Abernethian Society in the Medical Theatre at 8 o'clock on July 9th, when Dr. Gee will deliver an address on "The Conflict of Medicine with the Small Pox."

Amalgamated Clubs.

CRICKET CLUB

ST. BARTHOLOMEW'S HOSPITAL v. STOICES.

This match was played on May 9th on our ground. We won the toss and sent in Randolph and Jefferison. Randolph was soon out, but Greaves and Jefferison added 30 before the latter was bowled. Greaves continued to play well, but could get no one to stay with him. He was bowled when he had made 27, the innings soon after closing for 62. When the Stoices went in they did even worse than we had, being all out for 51. None of the batsmen appeared comfortable with the deliveries of Rose and Pank; Pank took 6 wickets for 31, and Rose 4 for 18. We went in a second time and scored 38 for four wickets, Greaves again doing well. We thus won our first match by the narrow margin of 11 runs.

ST. BARTHOLOMEW'S HOSPITAL.		SCORES.	
1st innings.		2nd innings.	
W. H. Randolph, c Bramwell, b Roberts	1	b Leggett	3
A. E. Jefferison, b Roberts	13		
H. S. Greaves, b Haycraft	27	b Cowlshaw	19
E. F. Rose, b Roberts	5	not out	2
H. W. Whitwell, c Bramwell, b Haycraft	0		
J. C. Sale, b Roberts	5	b Cowlshaw	4
A. W. Maturin, c Evely, b Roberts	5	b Cowlshaw	0
G. E. Scoones, b Roberts	0		
H. C. Marrack, not out	2		
H. J. Pickering, c Bramwell, b Haycraft	1		
H. W. Pank, c E. Roberts, b Haycraft	0		
Extras	3	Extras	10
Total	62	Total (for 4 wks.)	38

STOICES.

A. E. Evely, b Rose	13
C. E. Lee, b Rose	2
L. Cowlshaw, b Rose	18
A. W. Bramwell, c Marrack, b Pank	4
W. J. Haycraft, b Pank	1
C. E. Roberts, st Maturin, b Pank	0
C. C. Roberts, b Pank	0
C. Haywood, b Rose	5
L. M. Leggett, c Pickering, b Pank	2
C. E. G. Lee, b Pank	3
B. Rennie, not out	2
Extras	2
Total	51

BOWLING ANALYSIS.

Over.	Maidens.	Runs.	Wickets.
E. F. Rose	14	5	18
H. W. Pank	15	4	31

ST. BARTHOLOMEW'S HOSPITAL v. RICHMOND.

This match was played at Richmond on May 20th, and ended in the first defeat of the Hospital by 67 runs. Richmond won the toss, and started well, Dr. Elliott and Bush putting on 41 for the first wicket. At length Willett, who had taken the ball from Rose, brought about a change, getting three wickets in quick succession. After lunch Bush was caught at slip for a fine innings of 45. Nettleton and Hincks scored freely, but the remainder failed before the bowling of Rose, who was in great form after lunch. Rose's analysis read five wickets for 39. Willett and Pank bowled well at times, but the latter met with bad luck. Our innings opened sensationally, a leg-bye being the only score when the third wicket fell. Willett and Sale then made a great stand, taking the score to 49 before the fifth wicket fell, but six wickets were down for 48, Denham having captured them all. Willett was out at 59 for a plucky innings of 32; he went in with the score at 1 for three wickets, and owing to his efforts we were enabled to make a fair score. Bond and Marrack added 37 for the eighth wicket, Marrack hitting vigorously for 23 not out. The innings closed for 97, a higher total than seemed likely at one time. Denham was the most destructive bowler, capturing seven wickets at a very small cost.

SCORES.

RICHMOND.		ST. BART.'S.	
Dr. G. Elliott, c Pickering,	17	H. E. Scoones, b Denham	0
b Willett	17	H. J. Pickering, b Denham	0
E. A. Bush, c Pank, b Willett	45	H. S. Greaves, b Denham	0
Capt. Fleming, b Willett	3	E. F. Rose, c Francis, b Denham	0
H. B. Denham, b Willett	3	ham	0
R. N. Hincks, c Willett, b Rose	36	J. A. Willett, c Francis, b Fleming	32
F. P. Francis, c Scoones, b Rose	11	J. Sale, b Denham	12
Rose	11	H. W. Whitwell, c Nettleton, b Denham	0
F. W. James, c Rose, b Pank	30	H. Bond, c Elliott, b Williams	13
E. Nettleton, c Scoones, b Rose	2	C. A. Ridout, b Denham	1
Rose	2	G. C. Marrack, not out	23
E. Nicholson, b Rose	0	H. W. Pank, c Elliott, b Williams	0
D. A. Bacon, b Rose	1	Extras	16
W. Williams, not out	5		97
Extras	14		
Total	164		

BOWLING ANALYSIS.

Over.	Maidens.	Runs.	Wickets.
E. F. Rose	15.4	4	39
H. W. Pank	22	5	59
J. A. Willett	13	1	37
J. C. Sale	4	1	15

ST. BARTHOLOMEW'S HOSPITAL v. CRYSTAL PALACE.

This match was played on May 28th at the Crystal Palace and resulted in a win for the Palace by 72 runs. We played with ten men, and had a very weak team. Our opponents batted first, and were disposed of for 146. Capt. Fleming hit hard for 34, and later Dr. Umney batted well for 33 not out, though he was missed twice—once before he had scored. Sale and Skey bowled very well, the former obtaining 5 wickets for 43 and the latter 5 for 62. We had Simmonds started well, scoring 36 before Simmonds was given out 11 w. Bond left soon after, having played very well for his 22. Of the rest Skey was the only one to do anything with the bowling of Turner and Umney. We were all out for the very poor total of 74. On following on we did much better, Pickering hitting freely for 37; Scoones also played well for 31 not out.

SCORES.

CRYSTAL PALACE.

S. Colman, 1 b w, b Sale	23
E. G. Turner, c Sale, b Skey	18
Capt. Fleming, b Skey	34
F. D. Pawle, c and b Skey	30
G. E. Bicknell, b Skey	3
F. C. A. Thompson, c Skey, b Sale	13
F. C. Burcharth, 1 b w, b Sale	1
Dr. W. F. Umney, not out	33
M. Moberley, b Sale	0
W. E. Burcher, c Rose, b Sale	1
E. T. Campbell, b Skey	10
Extras	10
Total	146

ST. BART.'S.

1st innings.		2nd innings.	
H. Bond, c Pawle, b Turner	22	b Campbell	17
E. G. Simmonds, 1 b w, b Turner	9		
A. R. Skey, b Umney	15		
E. F. Rose, b Turner	1		
J. C. Sale, b Umney	3		
H. E. Scoones, b Umney	1	not out	31
G. C. Marrack, b Turner	0		
C. G. Watson, c Turner, b Umney	8	c Barber, b Bicknell	2
H. J. Pickering, b Turner	0	b Burcharth	37
A. H. Bostock, not out	1	c Fleming, b Burcharth	0
Extras	5	Extras	12
Total	74	Total (for 4 wks.)	99

BOWLING ANALYSIS.

Over.	Maidens.	Runs.	Wickets.
E. F. Rose	9	2	31
A. R. Skey	25.2	6	62
T. C. Sale	17	3	43

ST. BARTHOLOMEW'S HOSPITAL v. KENSINGTON PARK.

This match was played on Kensington Park Ground on Saturday, May 30th. The result was a draw; we required at the finish 30 runs to win and had two wickets to fall. We again lost the toss, which the chief contributors were Seaton 43, and Winter 38. Hext also batting well. Our innings was characterised by even scoring, nearly all getting into double figures; the best effort was that of Pickering, whose 47 was the result of a hard and clean hitting. Sale and Maturin made an excellent stand for the second wicket, taking the score from 26 to 66 before Maturin was bowled for 25; Sale left soon after, having also obtained 25. Towards the close, Marrack hit well for 25. Our fielding on the whole was very good, the catch by Maturin which dismissed Currie being worthy of special mention.

SCORES.

KENSINGTON PARK.		ST. BARTHOLOMEW'S HOSPITAL.	
W. Winter, b Whitwell	38	H. Bond, 1 b w, b Seaton	12
D. C. Lee, c Marrack b Pank	16	F. H. Maturin, b Seaton	25
G. K. Hext, b Whitwell	34	J. C. Sale, b Abney	25
E. H. Seaton, c Pank, b Willett	43	J. A. Willett, b Abney	0
T. H. C. Lericq, b Whitwell	0	H. E. Scoones, 1 b w, b Abney	11
M. A. Nicholas, c Bostock, b Sale	34	H. J. Pickering, b Abney	47
H. D. Nicholas, c Maturin, b Willett	2	H. Whitwell, c Currie, b H. Nicholas	6
S. Christopherson, c Whitwell, b Pank	9	C. A. S. Ridout, run out	12
L. E. G. Abney, run out	10	G. C. Marrack, c Lee, b Abney	25
W. H. Currie, c Maturin, b Pank	7	C. G. Watson, not out	5
A. Davies, not out	7	H. W. Pank did not bat	6
R. Henriques, b Pank	7	Extras	6
Extras	18		
Total	217	Total (for 9 wks.)	186

FACTS OF PRESENT.

This match was played at Winchmore Hill on June 6th before a large attendance of spectators, including many of the fair sex. It is much to be regretted that the student element was conspicuous by its absence. The encouragement afforded to a team by the cheers of its partisans can scarcely be overrated, and the want of public spirit displayed by Bart.'s men on this occasion is most deplorable. It is to be hoped that this defect will be remedied by a better attendance on the occasion of our Cup Tie. For the first time this year the wicket favoured the bowlers, and as matters turned out it was lucky for us that we lost the toss.

The Post batted first on a difficult wicket, sending in Simmonds and Newington to face the deliveries of Rose and Pank. Simmonds was soon dismissed by Rose, but on Carson's appearance the only stand of the innings was made, resulting in an addition of 25 runs. The second wicket fell at 32, Carson falling a victim to Pank. Heasman, of whom much was expected, followed in, but had only scored three when, in trying to drive Pank, he was easily caught by Whitwell at third man (35-3-3). Newington was the next to go, being caught at the wicket by Bond off Rose, who had already beaten him more than once. His 21 proved to be the highest score of the innings. The bowlers now obtained the upper hand, the next three wickets only adding two runs. Willett's catch which dismissed Hoogan, is worthy of mention (38-7-1). Cobbold made several good strokes, but should have been easily taken by Rose at slip off Pank. With his dismissal the innings closed for 51, our opponents batting one man short. Rose and Pank both bowled with great success, the former coming out with the excellent analysis of 5 wickets for 10 runs.

Our innings was opened by Bond and Randolph, but only 5 were scored when Bond fell to Drake at mid-off. The second wicket fell at 21, of which number Randolph, the outgoing batsman, had scored 10. Rose failed to score, but on Greaves joining Pickering the score was taken to 40 before the latter was bowled by Heasman for 6. Willett joined Greaves, but only 8 had been added when Greaves, who had played well for 21, was caught by Cobbold off Heasman (48-3-21). The catch was a very fine one. On Sale partnering Willett the best stand of the innings was made. Both men played in good style, and 41 runs were added before Cobbold caused a separation by holding a hot return from Willett (99-6-13). Scoones saw the century hoisted, and was then caught off Hoogan, Marrack soon after falling a victim to the same bowler. Whitwell joined Sale, and runs came much faster. At 120 Sale fell to a good catch in the deep field by Rigge off Cobbold. Though at times he scored rather slowly, Sale's innings of 31 was a very good example of patient and stylish cricket (120-9-31). Pank joined Whitwell, and the two laid on to the bowling to a merry tune. Pank starting operations by hitting three fours. The score was taken to 163 before Whitwell, who had played in taking style, fell to an excellent catch by Nimmo off Hoogan. His innings of 26 was a very praiseworthy effort. Pank hit hard (for 18 not out), as he always does if he can manage to survive his first two overs.

Having a lead of 112 we put our opponents in again, when Heasman and Simmonds faced Scoones and Whitwell. Runs came at a good pace, and at 30 a double change was tried, Marrack and Sale replacing Scoones and Whitwell. At 51 Heasman was taken off

Marrack, and the next two wickets quickly fell to Sale. Time arrived with the score at 57-3-3. Sale got his two wickets for 6 runs. The match thus ended in an easy win for us on the first innings. Our opponents were not a very strong lot, but the bowling of Cobbold and Hoogan was very good.

SCORES.

1st Innings.		2nd Innings.	
E. G. Simmonds, b Rose	3	c Bond, b Sale	13
C. W. H. Newington, c Bond, b Rose	21	b Sale	3
H. W. Carson, b Pank	8	not out	3
W. G. Heasman, c Whitwell, b Pank	3	c Whitwell, b Marrack	20
"E. Hoogan," c Willett, b Pank	1		
F. H. Nimmo, b Rose	1		
C. S. Cobbold, c Willett, b Rose	12		
J. C. Shaw, b Rose	0		
D. J. Drake, c Scoones, b Pank	1		
J. A. M. Rigge, not out	1		
H. F. Wynter, absent	0		
Extras	0	Extras	9
Total	51	Total (for 3 wks.)	57

PRESENT.

H. Bond, c Drake, b Cobbold	3
W. H. Randolph, c Heasman, b Cobbold	10
H. J. Pickering, b Heasman	6
E. F. Rose, c Heasman, b Cobbold	0
H. S. Greaves, c Cobbold, b Heasman	21
J. A. Willett, c and b Cobbold	15
D. J. Drake, c Rigge, b Cobbold	31
H. E. Scoones, c Heasman, b "Hoogan"	1
G. C. Marrack, c Simmonds, b "Hoogan"	5
H. Whitwell, c Nimmo, b "Hoogan"	26
H. W. Pank, not out	10
Extras	27
Total	163

BOWLING ANALYSIS.

1st Innings.				
Overs.	Maidens.	Runs.	Wickets.	
E. F. Rose	11.2	4	19	5
H. W. Pank	11.0	1	32	4
2nd Innings.				
H. E. Scoones	6	1	14	0
H. Whitwell	6	0	18	0
G. C. Marrack	3	1	10	1
J. C. Sale	2.3	0	6	2

LAWN TENNIS CLUB.

The officers for the year are—President, Howard Marsh, Esq.; Captain R. F. Baird; Hon. Secs, F. E. W. Shewell and F. E. Price. There are five old members available for the 1st team, and S. Bousfield is playing again after a year's absence, so our chances in the Cup ought to be good. At present there have been 10 matches played, with the result that the Hospital has won 5 and lost 5.

First Match, v. Connaught L.T.C.—Our team was not representative, and all were much out of practice. Consequently we lost 3 singles and 3 doubles to our powerful opponents.

Second Match, v. Corpus Coll., Cambridge.—This was a very pleasant match indeed, and the Corpus men entertained us subsequently in princely style. Baird and Shewell won 3 rubbers, and the other two pairs one each, with one draw. The Hospital lost this match.

Third Match, v. Albemarle L.T.C.—The Hospital won 5-3. Baird and Shewell won 2 rubbers, and Wood and Bell 1.

Fourth Match, v. Winchmore Hill.—Result, lost 3-6. Our team was not at all representative, while our opponents had nearly their full strength.

Fifth Match, v. Connaught.—The Hospital won this return match by 5 rubbers to 1. Only two rounds of doubles were played. Baird and Shewell won 2, as did Marsh and Bousfield. Wood and Price won 1.

Sixth Match, v. Waustead L.T.C.—Six singles and 3 doubles were

played. Shewell, Bell, and Price won their singles, and the Hospital won all the doubles. Result, won 6-3.

Seventh Match, v. Hornsey L.T.C.—Result, won 5-4. Baird and Shewell won 3 rubbers, and Price and Barnes won 2. Wood and Bell were unfortunate.

Eighth Match, v. Surbiton L.T.C.—In this match Price and Wood did well in winning 2 rubbers, while Baird and Bousfield, and Marsh and Bell each won one. The return ought to result in our favour.

Ninth Match, v. Albemarle L.T.C.—This return match was unavoidable. The fact of playing with balls to which we were unused may have put our team off, but we ought to have won more rubbers than three. Baird and Shewell won 2 out of 3.

Tenth Match, Past v. Present.—The old Bart.'s team were one short, and Harris very kindly played as substitute. Crossley and Williamson for the Past were a strong pair, and won all 3 rubbers, and Padwick and Weir won 1. The upper courts at Winchmore Hill were used, and are better than the lower ones, though this is not very high praise. There were a fair number of visitors to the ground, who watched the match with considerable apparent interest.

It has been very difficult up to the present to obtain a full representative team for any one match, and the pairs have necessarily had little practice together. This is a great handicap but appears unavoidable. Our present second pair, S. Bousfield and J. K. N. Marsh, should be very good with more practice together. The probable third pair is not yet fixed. The team want more practice in singles before the Cup Ties, which take place on June 22nd and following days at Chiswick Park. Our most formidable opponent will be, as last year, St. Thomas's.

The Lawn Tennis Cup Ties commence on Monday, June 22nd, at Chiswick Park. It is to be hoped that, as we have a much better chance of winning the Cup than in previous years, men who take an interest in the game will put in an appearance at the ground. The attendance for the last two years at any rate, has been exceedingly meagre. The draw takes place on Monday, June 15th, and full particulars will be posted on the screens.

The Hospital team will be the following:—H. W. Shewell and R. F. Baird; S. Bousfield and J. K. N. Marsh; V. Bell and F. E. Price or P. Wood.

Abernethian Society.



On March 5th an ordinary meeting of the Society was held, the President, Dr. H. B. Meakin in the Chair. Mr. J. W. W. Stephens read an able and interesting paper on "Marriage of Kin."

The reader gave a short history of marriage, excepting the now imposed marriage restrictions, whose origin it was found impossible to trace. The various reasons which have been brought forward in support of the limitations set down by the Prayer-book were quoted. The injurious effects on offspring resulting from marriage of kin formed the subject of the greater part of the paper. With the aid of statistics it was shown that the evil results of marriage of first cousins were non-existent wherever the parties of the marriage were sound in constitution. The Pitcairn Islanders were instanced; large numbers of them have only to go back to 1800 to find a common ancestor, and yet the race is a very fine one. The author admitted that if there be a weak spot in a family history it is liable to be intensified by marriages of kin, but the same hold good in a marriage between two strangers both exhibiting the same defect. After a discussion the meeting adjourned.

At an ordinary meeting held on March 12th, Dr. H. B. Meakin read a paper entitled: "The Shape of the Hard Palate as an Indication of Neurotic Inheritance."

The paper was based on many observations made by the author at Banstead and Wandsworth Asylums and elsewhere, and contained a summary of observations made by the recognized authorities on the subject under discussion.

Dr. Meakin having defined the meaning he intended to convey by the words neurotic inheritance, described in detail the various abnormalities in shape to which the hard palate is liable, illustrating them with diagrams, and several living examples selected from among the out-patients of the Metropolitan Hospital. Clouston's three types of palate—the normal, neurotic, and deformed—were described, and statistics were given showing the relative frequency with which the different types were met with among the sane, the congenitally insane, cases of acquired insanity, and cases of adolescent insanity.

The high percentage of palates belonging to the "deformed" type, met with in cases of adolescent insanity—the most hereditary of all mental diseases—was particularly pointed out.

Several families were described in which there was undoubted neurotic taint in the parents, showing itself in some and not in others of the children. In every case the shape of the palate coincided with the mental condition. Those children who were neurotic had palates belonging to either the neurotic or deformed class, while those who seemed to have escaped the hereditary taint had palates of the normal type. The palate was not, however, to be taken as an absolute sign of the presence or absence of neurosis, but as a very valuable and generally accurate aid in diagnosis.

On March 19th the President, Mr. J. K. Murphy, being in the chair, a paper entitled "Medicine in the Seventeenth Century," written by Mr. C. C. Ingram Turnbull, was read by the Hon. Secretary, the author being unavoidably absent.

A long and detailed account of medical methods in the seventeenth century was given. The costumes worn, and fees received by doctors of that time were mentioned. The rise of the medical and surgical schools both in England and on the Continent was traced, and several references made to St. Bartholomew's Hospital as regards the first admission of students, and the appointment of lecturers. The paper concluded with the following quotation: "The most precious capital of states and society is man. To preserve man to maintain it intact as far as possible up to the unalterable limits of its duration is not only a precept which humanity teaches, it is the duty of every commonwealth in its own peculiar interest."

On March 20th the annual general meeting was held, the President, Dr. H. B. Meakin, in the Chair. The secretaries' report having been read, the following gentlemen were elected to hold office during the ensuing year. Presidents.—Mr. J. W. W. Stephens, Mr. W. K. Stowe. Vice-Presidents.—Mr. R. H. Brembridge, Mr. J. Hussey. Secretaries.—Mr. W. Langdon Brown, Mr. A. L. Ormerod. Additional Committees.—Mr. A. T. Compton, Mr. H. Williamson.

The Mid-Sessional Meeting of the Abernethian Society will take the form of a commemoration of the Jenner Centenary. Dr. Gee will deliver the address at 8 p.m. on Thursday, July 9th, in the medical theatre, his subject being "The Conflict of Medicine with the Small Pox." Refreshments will be served afterwards in the Library.

The Annual Dinner of the Amalgamated Clubs.



THIS annual fixture of the cricket and tennis teams took place on June 6th at the Amalgamated Clubs Ground at Winchmore Hill. Perfect weather and the hope of meeting old friends drew many to the ground, not a few being members of the gentler sex, amongst whom were several sisters and nurses. The Staff, too, turned up in force—on foot, in carriage, and on the ubiquitous bicycle. Several old Bart.'s men were present, but not nearly so many as we should like to see. A description of the cricket and tennis will appear in another place; suffice it to say that tea, cakes, and above all ices, were enjoyed by those who patronised the pavilion. Many had unfortunately to leave early, so as to change in time for the dinner in the evening.

The Annual Dinner of the Amalgamated Clubs was held after the match at the Holborn Restaurant. The dinner itself, which was rushed at a record pace, occupied so little a portion of the time, that the word "dinner" seemed a misnomer either for it or for the evening's entertainment.

Dr. Church occupied the Chair. About a hundred members and friends were present, including Mr. Marsh, Dr. Champneys, Dr. West, Mr. Bruce Clarke, Mr. Bowley, Mr. Lockwood, Dr. Herringham, Dr. Tooth, Mr. Paterson, Dr. Shore, Dr. Calvert, Mr. Waring, Dr. Morley Fletcher, Mr. Furnival, Mr. Weir, Mr. Sloane, and several old Bart.'s men. The Junior Staff were represented by only two members; the rest no doubt were prevented from attending by the engrossing arrangements for the forthcoming Summer Concert, by the usual loyal toasts were given by the Chairman, and received with musical honours. Dr. Church then gave "The Amalgamated Clubs." The speaker referred to the present condition of the clubs, and the satisfaction that the ground at Winchmore Hill had given. The history of games involving the use of a ball or balls was touched upon. Dr. Church considered that such games were conducive towards the "mens sana in corpore sano." Such games were also a sign of

civilisation, both Romans and Greeks having been noted players. Galen himself recommended *iodium baron pileo*. Tradition told us that for the origin of the great games of ball we were indebted to the fair sex, in Aganella, a fair maid of Coccyus.

Dr. Church held up the Inter-Hospital Association Challenge Cup (which, by the way, ought surely to have been filled for the occasion), and spoke of it, amid great cheering, as being now in what he considered to be "its proper home." If we had not been equally successful in the other games, we had at least made a gallant try. The Cricket Cup had not yet been disposed of this year, and Dr. Church hoped we should be successful in our efforts to obtain it.

On the authority of the Treasurer (Mr. Bowly) Dr. Church remarked on the extremely satisfactory condition of the finances of the Amalgamation. This was the second Annual Dinner of the Amalgamated Clubs, and there could be no doubt of its successful nature. The speaker's concluding words were, "I think this dinner deserves the support of all St. Bart's men. I look upon it as the most valuable link that has been forged between past and present Bartholomew's men. It is calculated to increase the efficiency and success of our Hospital School. It also tends to connect the Staff more closely with the School, and, speaking from an experience of now many years, I think our students regard us in most cases, not only as teachers, but also as friends. I will ask you to drink success and prosperity to the AMALGAMATED CLUBS OF ST. BARTHOLOMEW'S HOSPITAL."

The toast was received with very loud applause. Dr. Shore, in replying, spoke of the pride he felt in the position of President of the Finance Committee of the Amalgamated Clubs. Referring to the development of the clubs, Dr. Shore gave the number of members at the present time as 611; last year they numbered 450, while in the first year of the existence of the Amalgamation they figured at 240.

Touching on another department of the Amalgamation, the success of the *Journal* of each year. The number of subscribers was now 1500, as opposed to 1000 and 500 in the two preceding years respectively. Dr. Shore gave the happy forecast that "as long as St. Bartholomew's exists, so long will the Amalgamated Clubs continue."

Mr. F. W. Woodbridge (Secretary of the Clubs) also replied to the toast with a sketch of the work done by the Clubs in the past year. Every branch of sport at the Hospital had gained in every way since the Amalgamation. The cricket had improved to such an extent that this year we had the best team that we had ever put in the field. Mr. Woodbridge hoped and believed that we should have the Cricket Cup in the Library at the end of this season. The Rugby team had played in the semi-final for the Hospital Cup, but had then been beaten by the excellent play of St. Thomas's (the present holders of the Cup) after a most successful season.

The matches played by the Association team showed a very good record, and they had ended the season by winning the Cup (terrific cheers).

Owing to the disablement of some of our best athletes we should not be able to place our best team in the field for the Athletic Shield, but Mr. Woodbridge hoped we should have a good chance of bringing the Shield back in spite of our misfortunes.

The toast of the "Old Bart's Men" was given by Mr. R. P. Brown. Mr. Brown urged in support of his toast that old Bart's men always took a great interest in their old School and in Hospital sport. In the matches that Bart's played it was always a great pleasure to meet old Bart's men among the spectators or in the opposing team. Mr. Brown alluded to prominent old Bart's men, mentioning in particular Dr. W. G. Giacco, and Surgeon Captain Whitechurch, of Chitral fame. The names of Dr. W. G. Heasman and Surgeon Captain Whitechurch were coupled with the toast.

Dr. Heasman said, in reply, that he wished more old Bart's men were present at the dinner. In attending the dinner old Bart's men look forward to meeting not only the students, but the Staff, and it was to be hoped that the Staff would be always well represented at the dinner. Dr. Heasman alluded to the very pleasant match they had played in the afternoon, and hoped that men now playing in the present team would soon pass the meridian of exams, and recruit the past team, so that the past team might make a better fight for victory than they had done to-day. The ground was a credit to any club, though it might be improved by the relaying of a thirty-five yards square. He regretted that Surgeon-Captain Whitechurch's name had not been placed before him. Surgeon-Captain Whitechurch was a man who had brought honour to the Hospital, and there was no old Bart's man who was not proud of Surgeon-Captain Whitechurch's deed of bravery, and who would not wish that he had done the same.

Surgeon-Captain Whitechurch, V.C., who was received with loud and prolonged cheering, remarked that he was a better listener than

spokesman. In spite of the tasks imposed upon already overburdened students it was impossible to crush the spirit of sport in Englishmen. Old Bart's men at home and abroad all took a great interest in Bart's, and felt a reflected glory in hearing of the successes of our Hospital. Surgeon-Captain Whitechurch declined to detain his audience longer, on account of the length of the programme. There were, however, indications that his hearers would have listened with pleasure for some time longer.

Dr. H. B. Meakin gave the toast of "The Staff." It seemed to him, he said, almost superfluous to do more than point to the Staff, and say the single word "Drink." Our Hospital was what the Staff made it. The present Staff were one link in a long chain; there had been a Staff at Bart's for very many years, and Dr. Meakin was sure that when the crack of doom came there would still be a Bart's Staff. The present Staff had received the traditions handed down to them by their predecessors, and had not only cherished them, but had added to them.

Our Staff were our examples not only in the ordinary work of our profession, but in professional etiquette and courtesy. Our treatment of a fracture or our conduct towards another member of our profession would be influenced always by our observations of the Staff at Bart's. Few men realised fully the extent to which pride in our Hospital really meant pride in our Staff.

Dr. Meakin, in conclusion, spoke of the interest the Staff took in the Amalgamated Clubs and in the *Hospital Journal*, and mentioned the importance of the presence of the Staff at the Annual Dinner, since they were generally the only men present whom the old Bart's men were likely to know. Dr. Meakin coupled the names of Dr. Samuel West and Mr. Howard Marsh with the toast.

Dr. West, replying for the Medical Staff, said that though the attendance of the Staff at this dinner had been spoken of as if it were a duty, he did not think of the duty, but rather of the pleasure. It was a chance of meeting men one had little chance of meeting otherwise. The pleasantest friends were made on the cricket and football fields and in other branches of sport, and gatherings such as this gave opportunities of meeting them again. "If one meets a Bart's man one is certain to meet a friend; and if it turns out that he is a sportsman, as he is almost certain to be, he will be a right good fellow."

Mr. Marsh made some very kindly remarks about the *Journal*, and said that an editor was often tempted to tear his hair, and to use language fit only for the golf ground. We all work, and we all play, but the mortar which binds the two together is the *Journal*. Dr. Church had alluded to the *De Amicitia*, in thinking of the Staff. Mr. Marsh was afraid the students would think of the *De Senectute*. The association of the Staff with the students kept them young, however, and *De Senectute* might be thought of in connection rather with the Hospital than with the Staff. The age of the Hospital made it quite possible for a man to have fought in the battle of Hastings, and to have afterwards been an out-patient at Bart's. Mr. Marsh promised to bring to the next dinner Mr. Luther Holden, who had just returned from Johannesburg, looking as hale as ever.

Mr. Bowly proposed the toast of "The Chairman." Though there were no Sports and no Inter-Hospital Cricket in Dr. Church's day, yet he had been a first-class cricketer, and Mr. Bowly regretted that Dr. Church had not figured in the "Past" team this year. Mr. Bowly hoped that next year Dr. Heasman would persuade Dr. Church to play for the old Bart's men a hope which was endorsed by loud cheering. Dr. Church was responsible, as a member of the Select Committee, to a very great extent for the success of the Amalgamated Clubs, and for the excellence of the *Journal*.

The toast was drunk with musical honours and three cheers, "with one for Mr. Bowly," and Dr. Church briefly responded, the dinner terminating with "Auld Lang Syne."

During the evening songs were sung by Dr. West, Mr. S. F. Smith, and Mr. Rae, who very kindly contributed to the programme. Dr. Haydon played a violin solo, and Mr. John Edgar, who accompanied at the piano, played some "Popular Airs" early in the evening. The musical programme was arranged by Mr. D. L. E. Bolton.

Inter-Hospital Sports.

The Inter-Hospital Athletic Sports will be held at the Stamford Bridge Grounds on Wednesday, June 24th, at 3 o'clock. It is hoped that every one who is able will be present to encourage our team.

Round the Fountain.

By LINCOLN CRANDORNE.

"LITTLE things please little minds" is an old saying, no doubt," remarked the Chronic, "but very true for all that; now there are one or two little things in this Hospital that might be improved by alterations."

"You are always grumbling," said the Enthusiast, "and the greatest grumbler is generally the greatest do-nothing; but what is your grievance this time?"

"The Hospital colours," replied the Chronic.

"Which are not colours at all," suggested the Fresher.

"What is the matter with black and white?" inquired the Enthusiast.

"This," replied the Chronic, getting quite excited, "they are being continually dragged in the dust, hopelessly prostituted to the execrable taste of a few."

"Phew!" whistled the Fresher, "poor few."

"Yes," continued the Chronic more vehemently, "I mean what I say; here you may see a little Bart's crest stuck on a brown ribbon—ye gods! a brown ribbon; and there some hopeless Philistine parading an ordinary black and white hat-band bought in the neighbourhood of Ludgate Hill."

"It's all 'Hope' for the wicked," interrupted the Fresher.

"Dress again!" warmly sighed the Enthusiast, "yet I agree with you in thinking that weird adaptations of Bart's glorious colours are to be discouraged."

"In fact, a bit off when on," said the Fresher.

"Men in your own year are most to blame," said the Enthusiast, severely, "and I would advise you to initiate a reformation movement amongst those 'new boys' whose ignorance is perhaps their only excuse."

"Another small point," remarked the Chronic, smiling at the discomfiture of the Fresher, "is the condition of the smoking-room."

"'Tis on a par with the condition of its habitués," said the Enthusiast.

"Who should inquire into these things?" asked the Enthusiast.

"I believe the Abernethian secretaries," answered the Chronic; "but they, poor mortals, are quite busy enough in looking after their own particular den."

"In spite of the disadvantages of the smoking-room," said the Fresher, "many men manage to spend most of their time lounging on its padded couches."

"Smoking the cigarettes of the unwary," sighed the Enthusiast.

"For my part, I have given up smoking in the Hospital altogether; I found it quite impossible to live on a pound a week when five shillings disappeared in the smoke-clouds of my friends."

"'Tis certainly a nuisance," said the Chronic, "and a man will accept a cigarette who would decline a penny. But unfortunately there are many who possess neither."

"They are more expensive than dear as friends," put in the Fresher, who had a tendency to epigram.

"There is another class," continued the Chronic, "more trying if not so large; I mean the perpetual borrower, the 'could-you-possibly-lend-me-tuppence-till-Monday' man. Were his memory as excellent as his engaging manners it would not matter, but alas—"

"If you paid as much attention to Medicine as to idiosyncrasies of character, you might possibly pass in July," said the Enthusiast.

"If you could understand that all men *soon'st* drug sinks," retorted the Chronic hotly, "you might possibly get on the Staff."

"Steady!" exclaimed the Fresher, who was getting alarmed, "no ructions."

"Drugs and the knife; 'Drugs and the knife,' that is your motto," went on the Chronic, still very excited; "you seem to forget there are other ways of curing disease; for instance, toothache in the musical is relieved by one visit to the Empire, while Exeter Hall is an excellent antidyseptic for the literary."

"I have noticed that Jimmy's in large doses act as a powerful emetic," murmured the Fresher.

"If your opinions were generally held," sneered the Enthusiast, "I foresee a large field for a new form of advertisement; such as—'Why take medicine, when a single visit to the New Gaiety Duquesne will act as a certain cure for Gout, Rheumatism, Scurvy, Rickets, and Fractured Patella?'"

"Laugh on," replied the Chronic, who began to move away, "but young men with swollen heads are bound to burst sooner or later."

Junior Staff Concert.

The Annual Concert given by the members of the Junior Staff and of the Musical Society will be held on June 26th, in the Great Hall, at 8 o'clock.

Appointments.

SAUNDERS, A. L., M.R.C.S.Eng., L.R.C.P.Lond., appointed Medical Officer for the First South-Eastern District of the Freebridge Lynn Union.

GARSTANG, THOS. W. H., M.A.Oxon., M.R.C.S.Eng., appointed Medical Officer of Health to the Winsford Urban District Council.

WOOLLCOMBE, W. L., F.R.C.S.E., M.R.C.S.Eng., L.R.C.P.Lond., appointed one of the Senior Honorary Surgeons to the South Devon and East Cornwall Hospital, Plymouth, *vice* Wm. Square, L.R.C.P.Lond., F.R.C.S.Eng., deceased.

LYDDON, RICHARD, M.R.C.S.Eng., L.S.A.Lond., appointed Medical Officer of Health to the Urban and Port Sanitary Authorities, Deal, and also Surgeon and Agent to I.L.M. Coastguards for the Deal District.

ADAMS, J., M.D., appointed Medical Officer of the Workhouse of the Eastbourne Union.

LAMBERT, P., M.R.C.S., L.R.C.P., appointed Medical Officer for the No. 3 District of the Newbury Union.

DAVISON, R. T., M.D.Aber., M.R.C.S.Eng., reappointed Medical Officer of Health to the Battle Urban District Council.

PARKER, R. D., M.R.C.S., L.R.C.P., appointed House Surgeon to the Bridgwater Infirmary.

DRUITT, A. E., M.R.C.S., L.R.C.P., appointed House Physician to the Royal Hospital for Diseases of the Chest, City Road, E.C.

POWELL, J. C., M.R.C.S., L.R.C.P., appointed Assistant Medical Officer to Brooke House Asylum, Upper Clapton.

DE SANTI, PHILIP K. W., F.R.C.S., appointed Lecturer on Aural Surgery to the Westminster Hospital Medical School.

PATON, E. PERCY, M.D., M.S.Lond., F.R.C.S., appointed Surgical Registrar to the Westminster Hospital *vice* P. de Santi.

Cases of Special Interest.

Medical.

Luke, bed 1.—Glossolabial paralysis.

Luke, bed 7.—Tubercular peritonitis.

Luke, bed 8.—Paralysis of cranial nerves, &c.

Matthew, bed 9.—Pernicious anaemia (improving).

Matthew, bed 12.—Subcutaneous rheumatic nodules.

Matthew, beds 8 and 24.—Disseminated sclerosis.

Colston, bed 5.—Gonorrhoeal rheumatism.

Colston, bed 21.—Unguelitis.

Hope, bed 9.—Gall-stone colic.

Hope, bed 20.—Leucocythæmia.

Mary, bed 10.—Abdominal tumour.

Mary, bed 4.—Ascites.

John, bed 19.—Hysteria.

Examinations.

FINAL M.B.LONDON—1st Division.—J. A. O. Briggs, A. Heath, T. P. Legg, 2nd Division.—A. D. Ducat, J. H. Hugo, A. R. H. Skey, W. B. Warde.

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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. Kanchack, at the following rate:

Ordinary examination, Bacteriological or Pathological, such as tumour, membrane, or sputum	s. d.
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Any further report will be charged for at a special rate. If a mounted specimen is desired an extra charge of 1s. will be made. If a telegraphic report is 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 E. H. Shaw, 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.

Correspondence.

To the Editor of St. Bartholomew's Hospital Journal.
THE ROYAL MEDICAL BENEVOLENT COLLEGE.

DEAR SIR,—No doubt many other old Bart's men will be as pleased as I am with the suggestion in Mr Cripps' letter of the 23rd ult. that Past Students should subscribe to the Royal Medical Benevolent College, with a view to support the sons of old students applying for foundation scholarships. My object in writing is to propose that we should help Epsomites too by starting a fund to raise an "Old Students' Scholarship" to be awarded to the son of a Bartholomew man who passed highest from Epsom College at the M.B. Prelim. Sc. Univ. Lond., on the condition that he should enter for his medical curriculum at St. Bartholomew's Hospital. My experience of the *esprit de corps* of Bart's men makes me sanguine as to success, if Mr Cripps' views and my own are well promulgated among "The Old Boys." I am dear Sir, yours faithfully,
HENRY M. JAY.

CHIPPENHAM, WILTS;
May 28th, 1896.

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

THE TENNIS COURTS AT WINCHMORE HILL.

DEAR SIR,—Might I be allowed to make a suggestion as regards the Hospital Tennis Club? Why could not they provide half a dozen balls for each court, and give them into the charge of Mrs. Deau, with instructions to lend them out half a dozen at a time, the borrower entering his name in a book provided for the purpose, and standing responsible for the due return of the balls, it being fully

understood that he should make good any loss? Hoping the Club will see their way clear to make some such arrangement as I suggest,—I am, sir, yours faithfully, A TENNIS PLAYER.

June 15th, 1896.

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

ANNOUNCEMENTS OF COMING EVENTS.

DEAR SIR,—I think I am right in believing that many old Bart's men would be glad if "Coming Events" were oftener announced in your columns. I was personally anxious to be present this year at the Hospital Sports, and was sorely looked for an announcement of their date and place in the JOURNAL. Alas! I now find they are already past history, and I have missed the opportunity of attending them.—I am, sir, yours faithfully, A KEEN OLD BART'S MAN.

[Slackness on the part of those responsible for the arrangement of the events is the cause of the absence of any announcement in our columns. We have repeatedly requested that notices be sent to us in time for publication.—ED.]

Births.

ANDREWS.—On June 7th, at 35, Welbeck Street, W., the wife of F. W. Andrews, M.D., of a son.

DAY.—On May 10th, at 5, Surrey Street, Norwich, the wife of Donald D. Day, F.R.C.S., of a daughter.

FOULERTON.—On May 29th, at 23, Carlisle Mansions, Victoria Street, S.W., the wife of Alexander G. R. Foulerton, F.R.C.S., of a daughter.

HEWER.—On May 16th, at 33, Highbury New Park, N., the wife of J. Langton Hewer, M.D., F.R.C.S., of a son.

POWELL.—On June 12th, at Glenarm House, Upper Clapton, the wife of Herbert E. Powell, M.R.C.S., I.S.A., of a son.

Marriages.

LE QUESNE—DE CASTRO.—On June 6th, at Christ Church, East Sheen, S.W., by the Rev. E. Bruce Cornford, M.A., Curate of St. Barnabas Church, Southampton, Claude Philip Le Quesne, M.R.C.S. Eng., L.R.C.P. Lond., of Southampton, to Charlotte Lopes, second daughter of Daniel de Castro, Esq., of Mortlake, S.W.

READ—HUDSON.—On May 23rd, at All Souls, Langham Place, W., by the Rev. Canon J. H. Atcheson, Henry G. Read, M.R.C.S., L.R.C.P., I.S.A., L.D.S. Eng., of 1, Portland Place, W., to Mrs. S. T. Hudson, of Barling House, near Southend, Essex.

WALTER SODEN.—On June 14th, at St. James's, West Hampstead, by the Rev. J. Newton Soden, cousin of the bride, Richard Arthur Walter, M.R.C.S., L.R.C.P., of 282, Lytham Road, Blackpool, youngest son of Octavius Gardner Walter, Esq., of Wellington, Somerset, to Rose Sherman, elder daughter of the late Rev. Frank Soden, formerly of Lower Clapton, and of Mrs. Soden, Gondar Gardens, West Hampstead.

Death.

McLAREN.—On May 29th, at Newport Road, Cardiff, Kenneth McLaren, M.D. Lond., third son of the late John Wingate McLaren, of pneumo-thorax.

ACKNOWLEDGMENTS.—Guy's Hospital Gazette, St. Thomas's Hospital Gazette, St. George's Hospital Gazette, St. Mary's Hospital Gazette, Magazine of the London School of Medicine for Women and Royal Free Hospital, The Nursing Record, The Hospital, The Charity Record.

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. BOOTY, Advertisement Cassaver and Collector, 29, Wood Lane, Oxbridge 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,

JULY 14th, 1896.

"Equam memento rebus in arduis
Servare mentem."—Horace, Book II, Ode III.

Some Remarks on "Hospital Sore Throat."

By F. W. ANDREWES, M.D.

IT is a matter of such common experience that those engaged in hospital work are especially liable to suffer from sore throat that the term "hospital sore throat" has been employed to designate the condition. The term is a bad one, since it tends to imply that it is a special affection, and I use it here only because it covers the precise field which I wish to traverse, namely, the various forms of sore throat met with under hospital conditions. Those especially are attacked who have to spend a considerable time in the wards, and who actually reside in

the hospital, *i.e.* the house physicians and house surgeons and the nursing staff; the hospital patients themselves are also sufferers. The affection is usually regarded as a trivial one, as, indeed, it often is; but there are points of view from which it deserves more careful and detailed study than it has commonly received. The nursing staff of the hospital afford a peculiarly suitable field for this study, since they are specially exposed to hospital conditions, and for some years past an accurate record has been kept of the incidence of disease upon them.

I have analysed the cases of sore throat of all kinds occurring amongst the female staff since January, 1892, with respect to seasonal prevalence. From that date to the end of March, 1896, 319 cases are recorded—an average of 6.25 per month. About one nurse in four suffers in the course of the year. The seasonal curve varies somewhat in different years, but it is usually just above the average in the earlier months of the year, with a marked fall in June, a rise again in July, and a more marked fall in August, when the yearly minimum is reached. It then rises rapidly to November, in which month the yearly maximum is usually attained. The curve differs from that of scarlet fever in its later minimum and later autumnal rise, but it corresponds very fairly with the seasonal curve of diphtheria mortality in London.

The types of sore throat which are met with comprise every variety from simple catarrh of the fauces, through every grade of follicular and exudative tonsillitis to suppurative and ulcerative forms or actual membranous diphtheria. The commonest form is certainly follicular tonsillitis with patchy exudation.

The influence which hospitalism exerts in the production of sore throat is probably twofold—an indirect and a direct. The confined and sedentary life which hospital conditions impose, the exhalations from the sick, and the nauseating effluvia which frequently arise may well predispose to infective conditions of all kinds. These are influences to which a considerable degree of acclimatisation is possible; newcomers to a hospital suffer more from sore throat than those who have spent some time in the work. In the second place,

liability to infection is far greater in hospitals, where large bodies of sick people are gathered together, than is usually the case elsewhere.

It is probable that most, if not all forms of sore throat are infective, *i. e.* due to the action of a living virus. It is known that some forms are infectious, *i. e.* communicable. This is a truism in the cases of diphtheria and scarlet fever, and the opinion is gaining ground that the less serious forms of sore throat classed as tonsillitis may and frequently do spread by direct case-to-case infection. This is seen not uncommonly in the outbreaks of sore throat which occur from time to time in hospital wards, and which cannot be identified with diphtheria or scarlet fever. We unfortunately do not yet know what precise organism or organisms may be the cause of simple tonsillitis; the diagnosis has largely to depend upon the exclusion of more serious conditions.

There is, however, one organism which is a fertile source of sore throat, and which is recognisable with some certainty, namely, the diphtheria bacillus, and it is of much interest and importance to ascertain to what extent the prevalence of sore throats in hospitals is associated with its presence. It is notorious that diphtheria varies very widely in its clinical manifestations; almost every degree of membranous, exudative, or ulcerative sore throat may be met with, and in its slighter forms there may be mere redness and swelling of the fauces, affording no indication of the true nature of the case. There is now sufficient ground for asserting that in the presence or absence of the Klebs-Löffler bacillus we have a criterion by which we can judge the nature of any given case. Whether this criterion is an absolute one may by some still be disputed; at least it must be conceded that it is the only scientific criterion at our command up to the present, and he would be a rash physician who ventured to diagnose the slighter forms of diphtheria without its assistance. The question is complicated by the varying virulence of the bacilli as experimentally determined upon animals; but this is the case in instances of clinically typical diphtheria as well as in doubtful cases. To refer to non virulent forms as "pseudo diphtheria bacilli" is of little advantage, since virulence can be artificially varied in the laboratory. I will not, however, enter into this question here.

I have employed the bacteriological criterion in a sufficient number of cases of sore throat in persons engaged about the hospital, chiefly nurses, to be in a position to assert that diphtheria bacilli, sometimes virulent, are not infrequently present in cases of sore throat which bear little or no resemblance to classical diphtheria; in other words, that diphtheria, in a masked or atypical form, is the cause of a certain not small proportion of cases of "hospital sore throat." Further, I am bound to declare myself totally unable to distinguish between the majority of such cases and ordinary tonsillitis, except by bacteriological means. I have had the great advantage of collaboration with Dr. Kanthack;

in each case we have examined the cultures independently, and checked each other's results. I hope to publish the fruits of the investigation in detail in the *Hospital Reports*; meanwhile I may state the following figures:

Of 50 consecutive cases of sore throat of every kind occurring in members of the female staff (nurses and ward-maids) from October, 1895, to May, 1896, 32 showed no indication whatever of the presence of the diphtheria bacillus, or of any bacillus resembling it. Three cases gave a doubtful result, and in 15 cases bacilli were found which morphologically and in cultural characters resembled the Klebs-Löffler organism. Of these 15 cases 4 were clinically recognisable as diphtheria: the other 11 were cases which I should have regarded as simple sore throat. In 3 out of these 11 cases, the virulence of the bacilli was not tested; in 8 cases it was, with the result that they were found virulent in 6 cases, and not virulent in 2.

Let me give an instance of one of these cases. A ward-maid had suffered for three days from sore throat when I saw her, the onset having been gradual. I found the fauces swollen and reddened, in a catarrhal condition, with one or two small white specks in the crypts at the upper end of each tonsil; the glands at the angle of the jaw were not enlarged, the temperature was 99.4° F., and the pulse 116. Next day the temperature was normal, and in two days the specks of exudation had vanished, and the throat was nearly well. Yet cultures taken from the fauces when I first saw her showed typical diphtheria bacilli, which were later obtained in pure culture, and proved highly virulent when tested on a guinea pig.

The name which one should apply to cases of this kind is open to argument. The presence of even virulent diphtheria bacilli in an otherwise healthy throat, does not constitute the disease diphtheria. It is a matter of individual opinion what precise degree and character of inflammatory change does, in conjunction with the presence of the bacilli, constitute the disease for purposes of notification. But the treatment which should be accorded to such cases does not, I think, admit of dispute. They are a danger to the community, and should be treated as diphtheria.

Had we in scarlet fever a criterion upon which we could rely as we can upon the Klebs-Löffler bacillus in diphtheria, I think it likely that we should find a certain proportion of cases of hospital sore throat to be truly scarlatinal in character. It is notorious that, in many cases of scarlatina, the rash is trivial in degree and transient in duration, and I do not doubt that many cases escape diagnosis, and pass as simple sore throat, though this is difficult to prove in any given case. Influenza, again, during the past few years has been the apparent cause of many cases of catarrhal sore throat, usually without exudation. Making deductions for these specific fevers, there remains a large proportion of cases of tonsillitis, often of a severe type, which are almost certainly infective, many of them probably infectious.

These constitute the bulk of cases of hospital sore throat, and their precise ætiology remains at present a promising field of research. Quinsy is of course not uncommon, and depends upon the invasion of the deeper tissue by pyogenic cocci; but I should regard peritonsillar suppuration as a complication which may occur in sore throats of more than one variety. It is commonest in follicular tonsillitis, but I have seen it follow a very slight catarrhal sore throat, and I have recently had a case in which the inflammation appeared primarily peritonsillar, and not secondary to tonsillitis,—a double quinsy running its whole course in five days.

I will end with a few words about the practical treatment of hospital sore throat. I would emphasise the importance of an accurate bacteriological examination of every case; without it I am convinced that slight cases of diphtheria will pass unnoticed. I would also urge the removal from active hospital work of those suffering from even slight sore throat, if possible to the country. It is often difficult to persuade the victim of a trivial tonsillitis to cease from work, but it is indicated not merely in the interests of the sufferer but in the interests of the patients of whom he or she may be in charge. It is doubtless creditable and sometimes even heroic to remain at one's post when suffering from ill health, but the matter may be viewed in a different light when it is reflected that even a simple tonsillitis may be infectious, and may be of serious import to a patient already in a grave condition, and that what appears a trivial sore throat may be a slight form of a more dangerous disease. I believe that were the rule that no one suffering from even slight sore throat should remain in attendance upon the sick more strictly observed, we should have fewer cases of diphtheria or scarlet fever arising amongst the inmates of the hospital, and remaining unexplained, or set down to the account of "visitors."

Of the general medical treatment of sore throat, I will not venture to speak here. Many drugs have their votaries, and many are useful. But I will conclude by urging the value and importance of efficient local disinfection of the fauces. We know that diphtheria is a localised infection, and there is a strong presumption that other forms are so too; it follows that the application of germicides to the seat of infection should not be neglected, however valuable the other means employed. One has only to be careful not to employ too irritant a disinfectant to the inflamed and painful fauces. In the first rank I would place perchloride of mercury, which is generally used for the throat in too weak a solution. With care a solution of the strength of 1 in 500 may be safely used. I have employed a solution of one grain of the salt in an ounce of equal parts of glycerine and water, a measured half drachm (containing one sixteenth of a grain), being painted on the fauces three times a day. This smarts somewhat, but it is very effective in ridding a throat of diphtheria bacilli. Carbolic acid in germicidal strength is much more painful, but I think highly of Izal,

which can be tolerated as a gargle in the strength of 1 in 150, and being an emulsion, clings well about the fauces. I have also used peroxide of hydrogen (10 volume strength) with good result, but diphtheria bacilli resist its action longer than do streptococci and staphylococci. Chlorine water is a useful and familiar gargle which often cleans up the exudation from a throat with great rapidity, and in slight cases this is commonly all that is required in the way of local treatment.

Carbuncle.

By R. M. WEST, M.R.C.S., L.R.C.P.



ARBUNCLE may be defined as a specific local inflammation of the subcutaneous areolar tissue, speedily leading, *first* to sloughing of the deeper and more central parts, followed *secondarily* by the destruction of the overlying skin, the whole of the dead tissues finally separating in the form of a slough.

It is a disease which has been known and described, though often under a different name, from the earliest epochs of medicine. One of the Plagues of Egypt, described as "of boils and blains," was probably a pestilence accompanied by the development of carbuncles. Most of the so-called "Plagues" which infested Europe during the Middle Ages, notably the Great Plague of 1665, were characterised by the appearance of carbuncles, or as they were then called, "tuboes," on the body of the patient.

In Asia Minor, where the plague is endemic, carbuncles are of common occurrence; and the discharge from them is there considered the means by which its spread is favoured, though this certainly depends upon more general causes, such as bad hygiene, dirt, insufficient food, &c.

In ancient times, the appearance of carbuncles during a plague was looked upon as a not entirely unfavourable sign, for the sooner the disease was fatal, the less time was there for their development; and as carbuncles were among the later manifestations of the disease, it was considered that if the patient lived long enough to permit of their appearance, he stood a good chance of recovering altogether; in fact, the idea was that the "pestilential humor," as it was called, worked its way out and was eliminated by the carbuncle.

Clinically, a case of carbuncle has the following history, and presents the following appearance:

The patient, usually elderly, forty or over, and more often of the male sex, has probably been unwell, perhaps in reduced circumstances and on starvation diet, exposed to cold and wet, for some time previous to the appearance of the local inflammation; or he may be suffering from some chronic disorder, as renal or diabetic.

Then he notices, usually on the back of the neck or

between the scapula, a hard painful lump or pimple, which he probably puts down as a boil. The hardness and pain spread and increase, whilst the patient has general feeling of malaise. Probably after from three days to a week of suffering he comes to the hospital. You examine him, and find at the painful spot indicated a raised, hard, circular, dusky, hot, tender swelling, with little or no sense of fluctuation, the redness and hardness gradually fading off into the surrounding healthy tissues; and this swelling is usually single. It may vary in size from one to nine inches across. Soon, the swelling meanwhile increasing in extent, hardness, and pain, a dusky vesicle forms over its most prominent part, the skin over it gives way, usually in several places, leaving small circular punched-out holes, through which the gangrenous cellular tissue is discharged piecemeal, with comparatively little formation of pus. At this stage the pain is usually much lessened, as by the giving way of the skin tension is relieved.

The separation and discharge of the slough usually takes from ten days to three weeks, at the end of which time a circular healthy ulcer, with a flat surface, varying in extent according to the severity of the case, remains to granulate up and close slowly, leaving a surprisingly small scar.

During this process of inflammation and sloughing, the general condition of the patient is often sufficiently serious. The temperature rises to a considerable height— 101° , 102° , even 105° or 106° ; but more often perhaps, in bad cases, it does not exceed 100° , the patient being often in a typhoid condition, which may require the most careful nursing.

As a rule, when the slough begins to discharge, the temperature falls to normal, owing probably to the relief of tension, which causes cessation of pain and diminishes the septic absorption, two potent causes of high temperature.

As the gangrenous material comes away the patient's condition rapidly improves, and he is soon convalescent.

The description I have just given you is that usually presented by a carbuncle running a favourable course, which is most often the case.

But we sometimes see patients suffering from carbuncle going steadily downhill in spite of treatment, and eventually dying. When death takes place it is usually from asthenia, due in great measure to the patient's previous condition; or to septicæmic or pyæmic poisoning from the carbuncle itself.

In these fatal cases, instead of the inflammation ceasing to spread as the slough is discharged, more and more of the surrounding cellular tissue and skin becomes involved in the disease; the patient sinks into a typhoid condition, or, if pyæmia sets in, has rigors, accompanied by profuse sweating, an high up and down temperature, delirium, diarrhoea, and, if he live long enough, secondary abscesses and other signs of general pyæmic infection. In this condition he may linger on for weeks and months, and even eventually recover, as the following case will show:—A man, æt. 45, bricklayer, was admitted to Casualty Ward in

this hospital, under the care of Mr. Marsh, on September 10th, 1892, suffering from three large carbuncles on his back, which had reached the stage of granulation; that is to say, all the sloughs had separated. The day after admission a large abscess was opened in his right thigh, letting out eight ounces of pus. This was followed at short intervals by other abscesses in various parts of his body, but chiefly the subcutaneous tissue of the limbs. In all he had something like twenty-five abscesses opened during his stay in hospital. His temperature was typical of pyæmia. He was finally discharged cured on December 30th, 1892, having been in hospital nearly three months.

The prognosis of a case of carbuncle will be greatly influenced by the position of the lesion,—those on the face being especially fatal, those on the scalp less so, whilst those on the back, except for complications, are comparatively without danger.

Other things to be taken into consideration will be the age of the patient, extent of the sloughing, and, above all, any general disease complicating the local trouble.

Now, as to the differential diagnosis. Carbuncles may be confounded with boils and true anthrax. The diagnosis between boils and carbuncles is a very vexed point, many authorities on the subject maintaining that no distinction can be drawn between them; and clinically, at any rate, this is in many cases true. Brodie, for instance, in a series of lectures on surgery, which he delivered in his theatre at Great Windmill Street in 1822, says: "Carbuncles may be considered as boils on a very large scale," and it is often difficult, nay at times impossible, to distinguish between a large boil and a small carbuncle.

In a well-known work on surgery I find, for instance, the following description of carbuncle:

"Carbuncle is a specific form of local inflammation attacking the subcutaneous tissue and involving the skin; attended by effusion of unorganisable lymph, followed by sloughing of the central and deeper portions, and subsequently by destruction of the skin, and the separation of the dead tissues in the form of a slough."

In the same work, I find—

"Boil is a circumscribed inflammation of the skin and subcutaneous areolar tissue, attended by local effusion of lymph, and followed by the death of the central portion of involved tissue; and this slough, the core, is subsequently expelled through an opening in the cutis, together with the degenerated productions of the inflammatory process."

So that in the definition of carbuncle, we find that it involves the subcutaneous tissue and skin, whilst boils involve the skin and subcutaneous tissue; and in this order of involvement probably lies their chief pathological difference, for clinically it is often one of degree rather than of kind—I mean that the inflammation in boil begins in the cutaneous glandular structures, chiefly the sebaceous glands, whilst in carbuncle the inflammation begins in the deeper

subcutaneous areolar tissue, probably in its lymphatics. For practical purposes we may say that in carbuncle its large size, great pain, at any rate at first, its multiple punched-out openings, the large area of surrounding induration, and the fact that it is usually single, will serve to distinguish it from a boil.

Anthrax may at times be mistaken for carbuncle, but on closer observation the characteristic dry black central slough, the surrounding ring of vesicles, and the very severe general symptoms, will at once settle the diagnosis. Moreover, the microscope will at once establish the presence or absence of the rod-like *Bacillus anthracis* of the former disease.

Concerning the aetiology of carbuncle, its causes are numerous. We get it in the apparently healthy and robust, and we get it, more often, in the broken down. It is a not very uncommon complication of such general diseases as diabetes mellitus, Bright's disease, bad cases of typhus, typhoid, scarlatina, and, as we have already seen, of plague. Meat from diseased animals, taken as food, is said to produce it, and it is possible that many other septic matters introduced through the medium of the alimentary tract into the general circulation, might cause carbuncle. As to the local causes, they are obscure. Probably irritation, setting up slight congestion, which in the unhealthy subject will run on to carbuncle, is the determining factor. As against this, it may be said that carbuncles are comparatively rare on the two parts of the body most exposed to injury, namely, the hands and feet, though no part can be said to enjoy immunity; I have seen them on the finger, abdomen, buttock, thigh, face, as well as on the back.

The treatment of carbuncle may be divided into the local and general. I will not say much as to the general treatment.

As a rule the patient is kept in bed; but after the slough commences to discharge, and the temperature falls, this is unnecessary; in fact, fresh air is an important adjunct in the treatment of the disease, and can in most cases be obtained.

A fairly generous diet will usually be required; and it is the practice in this hospital to allow a certain amount of stimulant, as stout, wine, brandy; although Sir James Paget, in his lectures, does not approve of their use as a routine treatment. He says that the diet should differ as little as possible from that which the patient is accustomed to take; this would be, however, very poor fare for some of our hospital patients who are admitted suffering from carbuncle, and whose ordinary food, in many cases, consists of scraps taken out of dust-heaps, refuse of markets, etc.

Then as to medicine. Opium, if there be much pain, especially during the stage of tension, is invaluable; but we must keep our eyes open to the fact that these patients are often the subjects of advanced renal disease, in which case, of course, opium would, as a rule, be inadmissible,

a fact which would be made evident by testing the urine. Tonics, as iron, bark, nux vomica, and quinine, may be given with benefit.

Locally, the methods of treating carbuncle are almost as numerous as its causes. Some surgeons, Sir J. Paget among their number, are content with, nay almost insist upon, leaving the disease alone, that is, not interfering actively with it. Others advocate scraping, cutting, or some such operative measure, in nearly every case.

A middle line of treatment, namely, not interfering with the disease when possible, or performing some operation when advisable; treating each case on its own merits, and not adhering strictly to any one particular course, to the exclusion of all others, seems preferable.

Now, as to the treatment recommended by Sir J. Paget; in his lecture on the subject he tells us:

"In local treatment, one of the best things you can do, if the carbuncle is small, is to cover it with Emplastrum Plumbi spread upon leather, with a hole in the middle through which the pus can exude and the slough come away. This, occasionally changed, is all the covering that a small carbuncle will need. It is difficult to thus cover the whole surface of a large carbuncle and to keep it clean, therefore I think that the best application is the common Unguentum Resine; this should be spread large enough to cover the whole carbuncle, and over it should be laid a poultice of linseed, and at every change the carbuncle should be fomented with hot water."

This, with attention to general health, is Paget's treatment for carbuncles.

Incisions.—The practice of incising the carbuncle is a very old one, and was held in great repute until quite recently, since when it seems to have fallen into disuse. It was said to relieve pain by relieving tension; to hasten the separation of the slough; to act as an antiphlogistic by the free bleeding which followed its use, and to prevent the further spread of the disease.

(1) As to the relief from pain afforded by free incision. A carbuncle of two or three days' standing, which is hard, tense, and brawny, is very painful, and cutting it will, in many cases, relieve a considerable portion of the pain. But after this, when the carbuncle begins to soften and pus to form in its interior, it usually becomes less painful of its own accord. Thus, a carbuncle divided in the first stage may be relieved of some of its pain; if divided in the later stage, what little pain may exist is altogether unaffected by the cutting.

(2) Cutting is said to hasten the separation of the slough. Here again I must refer to Paget's lecture. He says, "With regard to the time that is occupied in healing with or without incisions, the healing without incisions is very clearly and certainly the quicker."

(3) Cutting is said to act as an antiphlogistic by the free bleeding. But we have seen that a patient with carbuncle

rarely has a very high temperature unless some complication exists; and what temperature he may have usually falls as the slough begins to separate; moreover, he is often in such a low state that depletion is contra-indicated.

The incisions employed were of two kinds: crucial, extending right across a carbuncle from edge to edge, namely, often seven or eight inches; and subcutaneous, made by introducing a long-bladed knife on the flat into the carbuncle, and sweeping it about in the diseased tissues,—rather a blind and dangerous proceeding.

Scraping has been much employed of late, and in the later stages may be of use in getting away the slough. It is done with a Volkmann's spoon, which is used on the diseased part until firm healthy tissue is reached. Its use is followed by the application of some disinfectant applied in the form of a fomentation. The antiseptics used in the fomentations are many and various: Carbolic acid, Lotio Condi, eucalyptus, Santas, boracic acid, and others; or the old-fashioned charcoal poultice may be used.

For the treatment of very large foul carbuncles, especially if on the extremities, the continuous bath is invaluable. From 3j to ʒij Tr. Iodi may be added to the water, which should be at a temperature of from 90° to 100° F. The bath is best used during the daytime, being replaced by fomentations at night.

The subcutaneous injection of some antiseptic, as carbolic acid, has, in the cases in which I have tried it, been very successful.

A solution of pure carbolic acid in glycerine, in the proportion of one in three to one in eight is used; one in five seems a very useful strength. From 15 to 25 minims of this solution, according to the size of the carbuncle, is injected into the surrounding inflamed indurated tissues, and not into the slough itself. The injections are best made parallel to the edge of the carbuncle, from three to four separate punctures being made in each case: so that if you take 20 minims of the one in five solution you will throw in four separate injections of five minims each, each injection containing one minim of pure acid. The needle of the syringe is to be introduced about one inch, and as it is slowly withdrawn the injection is pressed out, so that a "string" of acid, as it were, is left in the track of the needle.

The surface is then to be dressed with hot carbolic acid fomentations, one in forty, which are to be continued until the slough has separated, which it usually does in a week or ten days. The ulcer left is to be treated in the ordinary way with ointment, lotion, or what not.

This treatment seems to me to be a very good and rational one, the injection causing little pain and no hæmorrhage, the pain of the carbuncle being usually greatly relieved in a few hours; the temperature falling to normal by the following day, the spread of the disease being at once checked, and the induration rapidly disappearing; and the slough, if any there be, breaking up and coming away in

small pieces, and the ulcer left after its separation being of very much smaller size than that which remains after many of the other methods of treatment.

Puncturing or pricking with a quill pen steeped in an antiseptic solution is an inferior method to the above, as the quill is plunged into the passive slough, and not into the surrounding actively spreading inflammation, which it is our aim to stop. Besides, the blunt quill gives much more pain than the sharp needle.

So that in summing up the treatment of carbuncle, I think we may say: If possible, that is if the disease has ceased to spread, if the pain be not very great, and the surrounding inflammatory induration very extensive, treat it after Paget's method, namely, protect it and leave it alone. But if, after short trial of the above plan it is found that the inflammation is gaining ground, that more of the surrounding structures are being involved, and that the pain is great, then I say inject. Then, this failing to arrest the process, which will, however, be exceptional, you may have recourse to scraping, or any other severer operative measure which you may deem suitable. But I certainly think that before rushing at once to the knife, (a practice which, in a patient already much reduced in health, and who cannot afford unnecessarily to lose any blood, is to be condemned,) you should at all events give him the chance of any benefit which may result from the milder measures of injection, or "letting the disease alone."

The Diagnosis of Strangulated Hernia.

By W. McADAM ECCLES, M.S.(LOND.), F.R.C.S.(ENG.).

(Continued from p. 134.)



LARGE series of cases occur in which the condition of a strangulated hernia is simulated, and although such is not actually in existence, the cases are naturally anxious ones from the characters they assume. First and foremost are those where a hernia is known to be actually present, but the symptoms in evidence cannot be referred to strangulated bowel.

A most interesting class is that in which a hernia contains presumably omentum alone, and after some circumstance likely to cause strangulation, symptoms pointing to such an occurrence seem to follow. I have elsewhere^{*} dealt with the question as to whether strangulation of omentum by itself ever gives rise to signs and symptoms identical with those of intestinal obstruction. I allow that they may sometimes occur, but by no means is it the rule for them to do so, and further I do not think that even these are in reality due to the mere nipping of omentum at the neck of the sac.

There are, I believe, at least six factors in producing symptoms of strangulation in cases in which, on herniotomy, omentum is the sole contents of the sac. These are—

- (1) Cases in which taxis has been employed, but symptoms have more or less continued, and at the operation only omentum has been discovered. These may be explained by the reduction of the nipped intestine by the taxis, but followed by its tardy or incomplete recovery.

^{*} St. Bartholomew's Hospital Reports, 1894. "The Great Omentum: Notes on its Development, Anatomy, Physiology, and Pathology," p. 97.

- (2) Cases in which no bowel has been protruded, but in which the herniated omentum has dragged upon the stomach and transverse colon, so as to irritate the former and even kink the latter.
- (3) Cases of inflamed omental hernia with or without accompanying intra-abdominal peritonitis.
- (4) Cases where a very small knuckle of bowel was hidden by the omentum, and was actually returned during the herniotomy without being noticed.
- (5) Cases where another cause of intestinal obstruction is present within the abdomen.
- (6) Cases where a patient has an omental hernia, and is the subject of attacks of colic or constipation; it might be possible that one of these should be mistaken for an example of strangulated pure epiplocele producing symptoms of itself.

Ligature of omentum, healthy or congested, but rarely leads to any symptoms similar to those found in intestinal obstruction, provided it is performed with thoroughly aseptic silk, and even in those cases in which it does seem to be followed by these symptoms, they can often be traced to some other cause, such as the anæsthetic, tension in the skin wound, &c.

Any tube in the body is liable to be obstructed by pressure from without, by some changes in its own walls, or by blocking from within. In certain cases the lumen of the bowel in an enterocoele may be occluded either by fecal material, gall-stones, or other foreign bodies so as to produce what is termed an obstructed or incarcerated hernia. The result of this will be the production of somewhat similar symptoms, though not signs, of a true strangulated rupture. There is an increase in the size of the rupture, a good deal of pain, some tenderness, but the impulse on cough can be obtained, at any rate in the upper part of the sac. It faces be the material blocking the intestine, there is sometimes a doughy feel on palpation. The bowels are markedly constipated, and there is frequently vomiting, but it is not urgent, and often does not appear till late. Obstruction occurs most usually in rather large hernia, and particularly in those which contain irreducible gut; and because of the colon being commonly found in umbilical hernia, and the large intestine containing true feces, such ruptures above all others are prone to become incarcerated. There is little or no interference with the circulation in the wall of the hernia in very anxious cases, especially if they be left any length of time untreated, and when they occur in old feeble subjects.

In another group of cases inflammation occurs in connection with a hernia. In many the inflammation may be slight and transient in nature, but in some it may reach such a degree as to lead to serious symptoms, some of which are very similar to those of strangulation. So close, indeed, is this similarity in certain cases that it has led to the erroneous belief that many really strangulated hernia are merely instances of inflammation, with the result that effective treatment by operation has been delayed so long that a fatal issue has followed. Epiploceles are more often the seat of inflammation than hernia containing gut, and occasionally such inflammation is the result of an ill-fitting or improper truss.

In some cases the inflammation in the hernial sac may extend to the abdominal peritoneum, and tend to obstruction due to peritonitis.

In an inflamed rupture the expansile impulse on coughing is present, and there is increased heat and sometimes redness over the site of the swelling. In any case of doubtful diagnosis, it is much safer to explore the tumour than to leave it alone.

Certain contents of a hernial sac, which is not bowel, may be nipped, such, for instance, as the ovary and Fallopian tube. If such be strangulated along with gut at the same time, the signs and symptoms will be identical with any other case of constricted bowel, but if they alone be grasped, the symptoms are usually purely local. There will be pain and tenderness, some increase in size of the hernia, and some tenderness. Nausea is sometimes present, but if vomiting supervenes, it is but rarely urgent or frequent, and never becomes stercoraceous. The fact that an ovary is strangulated is but seldom diagnosed before operation, which, of course, should always be undertaken if there be doubt as to the contents of the sac.

If a patient have a leuœmia, and be the subject of a severe attack of biliousness with inauked colic, there might be some cause for thinking he was suffering from obstruction of the intestine due to a strangulated condition of the contents of the hernial sac. Careful examination, however, of the swelling will usually settle the diagnosis, although it must be admitted that such circumstances occurring in a person with a rupture are highly suspicious of a repeated gripping of a part of the intestinal wall, or a partial enterocoele.

The almost uncontrollable vomiting of pregnancy, if it occur in a

woman who has a hernia, especially if this be an irreducible one, may lead to some suspicion as to the exact condition of the contents of the sac. Here, again, the minute examination of the swelling, and the knowledge that the uterus contains a fetus, will usually clear up the diagnosis.

In both the inguinal and femoral regions, the lymphatic glands are very liable to inflammation from various causes, and there are numerous instances in which such acute adenitis has been accompanied by vomiting, and even constipation, which symptoms have led to the conclusion that a strangulated hernia existed. Fortunately, such a diagnosis in no way harms a patient, though the reverse—that of mistaking a strangulated rupture for simply inflamed glands—would be highly dangerous.

In a few instances inflamed glands have obscured a small strangulated hernia, and because these have been felt, and rightly diagnosed as such, the hernia has been incised. Inflammation of the overlying glands is not infrequent in strangulation, possibly as the outcome of that condition.

Lastly, inflammation of the glands may be associated with simple irreducible hernia, and they may lead to the belief that it is a strangulated one.

Acute orchitis, or acute epididymitis, are two other conditions which occasionally give rise to some suspicion of a strangulated rupture, especially if they occur in a patient who is also the subject of hernia.

The extreme tenderness, the weight, and the solidity of the swelling are generally quite conclusive points in the diagnosis.

Inflammation of a partially descended testis—a by no means rare occurrence—is sometimes most difficult to distinguish from strangulation in the hernia which so often accompanies it. Exploration in such cases is generally advisable.

Inflammation of the spermatic cord apart from the testis altogether has in a few instances been associated with symptoms similar to those of strangulation. Any cause of such inflammation, as for instance gonorrhœa, being present will point to the possibility of its existence.

In this connection, rotation of the spermatic cord attached to a partially descended or even completely descended testis must be mentioned. Symptoms of strangulation may occur in such, as vomiting, pain, tenderness, and an increase in size of the organ. These cases, again, usually call for exploration by way of diagnosis and successful treatment.

Peritonitis and enteritis occurring in patients who have hernial protrusions must necessarily not infrequently give rise to a considerable suspicion of strangulation by the marked symptoms of bowel trouble they cause. Local signs in the hernia are of the utmost importance in arriving at a correct diagnosis. A laxity of the sac, absence of tenderness, presence of an expansile impulse on cough or straining, all over the sac, and other signs, show non-strangulation of its contents.

Where general peritonitis is present, this may involve the sac as well, and give rise to several of the local signs of strangulation, making a certainty of the exact condition very difficult. Umbilical hernia are perhaps the most frequent to be associated with the most marked symptoms in such cases, and if irreducible, as they so often are, it becomes impossible to be certain in some cases.

A Case of Sacculated Aneurysm of the Aortic Arch.

By W. WYLLYS, M.R.C.S., L.R.C.P., L.S.A.,
GREAT YARMOUTH.



THE very numerous symptoms and signs to which an aneurysm of the arch of the aorta may give rise makes the following case of special interest in demonstrating how many of these may afflict the unfortunate possessor of the disease during its course, and how marvellously Nature compensates for the impairment in function of the thoracic viscera caused by such, the patient in this instance surviving four years, during the last of which less acute symptoms were experienced, and consequently less drugs and medical care sought for, the man frequently walking two to three miles a day with apparent increasing facility for so doing.

W. H. B—, aged 45 years, married, ship's steward, five children,

wife no miscarriages; had never been an excessive drinker, excitable disposition, and an inveterate smoker of shag tobacco: no history of syphilis.

Had smallpox in infancy, cholera and ague when abroad, and subacute rheumatism eight years ago. Three of his aunts died of phthisis and an uncle of heart disease.

Was in good health except for occasional attacks of subacute rheumatism till April, 1891, when, while at work, was forcibly knocked down on to a quay-heading by a steam-winch, which struck him on the chest, causing much bruising and shock, and compelling him to lay up for some weeks. On getting about again he complained of languor and inability to exert himself, and of falling down sometimes when walking, apparently due to vertigo. In September of the same year he returned home in a dazed condition, and, on arriving, asked his wife in an absent manner for something to eat, but when food was placed before him he simply played with it, never attempting so much as to put a morsel to his mouth; he appeared also not to know where he was nor to recognise his wife or children; was put to bed, where he remained for two months suffering from delusions. At the end of this time he regained his senses, but complained of agonising pains in the head, chiefly in occipital region and back of neck, and could only speak in a whisper, when headache was very severe complained of feet feeling icy cold. In a few months voice returned, but was of a squeaky nature, and he had sensation of pins and needles in arms and legs. Iodide of potassium in 8-grain and bromide in 15-grain doses, given three times a day, gave great relief to headache and other nerve symptoms. With this mixture he continued off and on till December, 1893, when I first saw him and found him in the following state: Much emaciated, legs and arms especially so; knee jerks increased; grasp of left hand weaker than that of right, *left radial pulse absent* (this, I learn from the physician who had attended him for the two previous years, had been much weaker than the right); right radial pulse very soft and of poor volume; pupils equal, semi-dilated, but responsive to light; heart sounds feeble, no bruit detectable; upper two thirds of left chest dull on percussion in front; no vesicular murmur to be heard, and no diffusible pulsation felt; veins of chest-wall not unduly prominent; chest movements very shallow, especially on left side; spines of sixth and seventh cervical vertebrae unduly prominent, and the seat of much pain at times; he complained also of dyspnoea, "gnawing sensation at heart," numbness at back of head, and failing memory for recent events; he wandered in his speech, and was delirious at night occasionally.

As treatment, I advised absolute rest in bed, limitation in the quantity of fluids taken, and the following mixture to be taken three times a day:—

R. Potass. Iodid. ....	...	...	grs. iij.
Tinct. Digit. ....	...	...	ʒv.
Liq. Strych. ....	...	...	ʒiv.
Aquam ad. ....	...	...	ʒi.

The dose of iodide seems small perhaps, but I believe when Tuffnell's diet is at the same time being adopted this drug is best prescribed thus. With this line of treatment he continued for some months, and expressed himself as feeling better for the medicine, in which he had great faith, stating that it diminished his shortness of breath and oppression in chest, and eased his cough. Towards the end of 1894 slight modifications were made as to rest and diet, and early in 1895, as his dyspnoea had markedly diminished, and anginoid attacks grown less frequent, he was permitted to get up and walk slowly about the house, and as the warm weather appeared, to stroll out of doors for a short distance. Except for cough, which troubled him considerably at night, with expectoration of green hummocky sputum, now and again streaked with blood, he gradually improved, so that at the end of 1895 and beginning of the present year he would on suitable days take himself off for the day with a bottle of cocoa and milk to the cemetery (a mile and a half from his home), or some other such elevating a place for one so afflicted! returning home in time for tea, after which he retired to bed.

On May 17th he came home much as usual after a comparatively short walk, went upstairs and got into bed, but had not been there many minutes before he was suddenly seized with orthopnoea, vomiting, and expectoration of blood, from which he died in a few seconds. *Post-mortem* performed 96 hours after death. Rigor mortis was passing off; subject thin but not markedly emaciated, very pallid, external jugular veins enormously dilated and engorged with blood. Clots of blood in mouth, froth and blood in trachea, which was pushed over to the right, and much narrowed by a huge mass to which it was adherent; the stomach contained large black clots. The mass proved to be an aneurysm of the arch of the aorta, con-

nected posteriorly and inferiorly with the oesophagus, into which it had burst, and adherent to left clavicle, upper two ribs, and left lung, but not to vertebral column, no bodies of vertebrae being eroded.

Left lung collapsed and pushed down by aneurysm behind the heart, and bound by several tough adhesions to chest wall posteriorly; its upper part was adherent to aneurysm, and was sodden with dark-coloured fluid blood derived from a leak in the aneurysmal sac.

Right lung emphysematous along lower margin; upper lobe, adherent to chest wall, contained several hard masses, proved by microscopical investigation to be composed of fibroid tubercles, the lung tissue around them showing interstitial fibrosis with foci of recent inflammatory changes, and a considerable number of giant cells.

Heart weight only 12 oz., flabby and pale, and floating in 7 oz. of serous fluid. No pericardial adhesions, *aortic valves competent*, though first part of aorta was much dilated and studded with calcareous patches of atheromatous degeneration. *The aneurysm*, which occupied the second and third parts of the arch, weighed 33 oz., or nearly three times as much as the heart, was well lined by a tough organised laminated clot 1½ inches thick at largest part of aneurysm, but tapering down to nothing at its commencement and termination, the latter being the weakest spot and seat of final rupture into oesophagus.

The left recurrent laryngeal nerve was obliterated, causing, no doubt, during life the falling in of the left vocal cord, and consequent changing cough and husky voice; direct pressure on thoracic duct could not be demonstrated.

Spleen enlarged and engorged, but proved to be free from morbid organic change by microscopic examination.

Liver "nutmeg," swollen and soft.

Kidneys swollen and friable; capsules adherent in places.

Brain very pale; *left ventricle* contained excess of fluid, and *dura mater* showed some patches of fibroid thickening.

The following points in the case make it, I think, of sufficient interest for publication.

Firstly, the *size of aneurysm*, its diameter at largest part being 5 inches, without giving rise to any perceptible pulsation or bruit, or erosion of bones.

Secondly, the *marked dilatation* and calcareous degeneration of *first part of aorta*, with *competence of aortic valves*.

Thirdly, the *flabby, small, feebly acting heart* with which patient's circulation was kept going for so long a period, the explanation of which I take to be the *competency of the aortic valves* warding off syncope by preventing undue evacuation and distension of the left ventricle into and from the large lake of blood the aneurysm formed.

Fourthly, the *absence of syphilis, alcoholism, or severe muscular strain on arms as the cause*, leaving subacute attacks of rheumatism only assignable to it.

Fifthly, the *curious brain and nerve symptoms*, which seem by the post-mortem to have depended on distension of left ventricle and rheumatic thickening of the meninges.

Sixthly, the *marked relief to dyspnoea and cough* experienced by patient when iodide of potassium was administered in such small doses as three grains, and to the agonising headache by the combination of iodide and bromide of potassium.

Lastly, the *differential diagnosis from mediastinal new growth*, which proved very difficult in the earlier stages of the development of the aneurysm on account of the absence of bruit and pulsation (though these never occurred at all), history of syphilis and inequality of pupils; the signs, however, of collapse of the left lung, loss of pulse in left radial artery, and character of the left lung, with anginoid attacks, pointed to aneurysm; and later, the duration of the disease with no dissemination of new growth or increasing emaciation confirmed the diagnosis of aneurysm.

Hereditry in Twins.

C. H., set 39, attending Dr. Griffith's out-patients with carcinoma of cervix uteri. The patient's father was one of twin brothers, his children were four daughters, no twins, each of these daughters had twins once, at the third or fourth pregnancy in each case. In the family of the father's twin brother twins occurred twice, and in the families of his children twins occurred several times. The above is of interest in connection with a paragraph on "Hereditry in Twins" which appeared in the 'Brit. Med. Journ.' of November 16th, 1895.

Notes.

MR. H. J. WARING has been re-elected Senior Demonstrator of Anatomy for three years.

MR. C. B. LOCKWOOD has been elected Demonstrator of Practical Surgery for five years, *vice* Mr. D'Arcy Power.

DR. F. W. ANDREWS has been re-elected Assistant Demonstrator of Practical Medicine.

MR. A. N. WEIR has been re-elected Assistant Demonstrator of Anatomy.

MR. W. E. MILES has been elected an Assistant Demonstrator of Anatomy for two years.

MR. McADAM ECCLES has been elected a Demonstrator of Operative Surgery for three years, *vice* Mr. D'Arcy Power.

DR. J. S. EDKINS has been re-elected Senior Demonstrator of Physiology.

MR. W. L. BROWN has been re-elected Assistant Demonstrator of Biology.

MR. T. J. HORDER has been re-elected Assistant Demonstrator of Biology.

DR. T. W. SHORE has been appointed Examiner in Elementary Biology for the Conjoint Board of the Royal College of Physicians and Surgeons.

MR. W. J. WALSHAM has been elected Examiner in Anatomy for the second Conjoint Examination.

MR. D'ARCY POWER has been re-elected Examiner in Physiology for the second Conjoint Examination.

MR. C. B. LOCKWOOD has been elected Examiner in Anatomy for the first F.R.C.S. Examination.

H. C. SELBY, G. Webb, H. W. Lance, and J. K. Murphy have taken the degrees of M.B. and B.C. of the University of Cambridge.

THE LAWRENCE SCHOLARSHIP AND GOLD MEDAL has been awarded to Sinclair Gilles.

THE MATTHEWS DUNCAN Gold Medal has not been awarded this year, but prizes will be given to G. E. Dodson and T. J. Horder *equales*.

IN reply to a question in the House of Commons on

June 29th, Mr. Balfour stated it is the intention of the Government to introduce a bill into the House of Lords on the subject of a Teaching University for London.

THE result of the last Senatorial election in the University of London is thoroughly discreditable to the University, and shows that it is high time the University was reformed. That Convocation should have deliberately passed over the claims of the President of the Royal Society and all the other conspicuous merits of Sir Joseph Lister does not say much for the intelligence of the graduates.

DR. L. A. LAWRENCE, an old Bart.'s man, won the monthly medal at Neasden Golf Club on Saturday, June 27th, with the score 88 less 12—76. On the same day Dr. P. H. DUNN, of Stevenage, won the monthly medal at the Royal West Norfolk Golf Club, Brancaster, with the net score of 97.

MR. C. B. LOCKWOOD has been elected Examiner in Surgery to the Society of Apothecaries.

A. G. PENNY has taken the degree of M.D. of the University of Cambridge.

C. BUTTAR, P. Horton Smith, and P. B. Norris have been admitted to the degree of M.D. of the University of Cambridge.

MR. H. T. BUTLIN has been appointed Joint Lecturer on Surgery with Mr. Marsh, *vice* Mr. Alfred Willett resigned.

DR. KANTHACK will give a short course of Clinical Bacteriology and Pathology from the 7th to the 25th of September, open to qualified men. The class meets three or four times a week. Each lecture is followed by a Lantern Demonstration and Practical Instruction in staining and examining morbid material from the wards, and in making cultivations, &c. The hours will be arranged to suit the convenience of those attending. Gentlemen intending to avail themselves of this course are requested to communicate with Dr. Kanthack before August 31st. On September 7th the class will meet in the Pathological Laboratory at 2 p.m. Fee £3 3s., and 2s. 6d. for hire of microscopes and use of slides and cover-glasses.

MR. D'ARCY POWER has been appointed one of the Hunterian Professors of Surgery and Pathology at the Royal College of Surgeons of England for the ensuing year. He will deliver a course of lectures upon Intussusception.

MR. J. LANGTON has been elected Vice-President of the Royal College of Surgeons for the ensuing year.

Amalgamated Clubs.

CRICKET CLUB.

ST. BARTHOLOMEW'S HOSPITAL v. R.I.E.C.

This match was played at Cooper's Hill on June 13th, and resulted in a creditable win for us by 17 runs after a very exciting game.

Bond won the toss, and took in Randolph with him to face the bowling of Plummer and Adamson. With the score at 13, Bond fell to a catch at mid-on off Plummer, and Pickering followed in, only to succumb in Adamson's next over.

Rose joined Randolph, and the latter began to hit vigorously, causing Curtis to appear in place of Plummer. At 43 Rose was bowled by Adamson for 8. Scoones was the next corner, and he and Randolph here made the best stand of the day. Randolph treated all the bowling with equal freedom, and Scoones played very good cricket.

Having seen the score taken from 43 to 115, Scoones got under a ball from Curtis and was caught at slip. His 25 was the result of very patient and stylish cricket, and proved a very valuable innings. (115-4-25).

Ridout was bowled by Adamson at the same total, and Watson after playing two or three overs without scoring, fell to the same bowler at 126. Without any addition to the score, Randolph was out to a hot return to Curtis. The outgoing batsman had made 73 in splendid style. He hit hard all round the wicket, and gave no chance in his invaluable innings. Whitwell and Marrack took the score to 156 before the latter was caught off Adamson for a useful though somewhat lucky 13.

At the same time Whitwell was bowled by Curtis, but Body and Pank took the score to 167 before the innings was brought to a close by the dismissal of the latter.

R.I.E.C. began with Curtis and Hope, the former taking first ball from Rose. Pank bowled Hope in his first over, and at 32 Adam fell to a good catch by Pickering off the same bowler. Nickel Jones was out 1 b w to Rose without scoring, but on Dicken joining Curtis a protracted stand was made. Curtis played all the bowling with mastery freedom, and Dicken showed great care. The score was taken to 86 before Curtis, who had obtained 62 of that number, fell to a very good catch by Scoones off Whitwell. The opposing captain had played in splendid style, his hitting being hard and clean, and his timing of the ball worthy of all praise. Plummer joined Dicken, and the rate of scoring slowed down considerably.

Despite several changes in bowling, the score was taken to 127 before Plummer was caught off Whitwell for a very useful 27.

Dicken's patient innings, which was of great value to his side, was closed by a catch at point at 132, he having obtained 23.

The seventh wicket fell at 132, Watson being bowled by Randolph; the eighth fell to the same bowler at 143, and Whitwell quickly obtained the last two. Our fielding was very keen, especially towards the close, two catches by Watson at point being worthy of mention.

Randolph and Whitwell were the most successful bowlers.

Table with columns for St. BART'S and R.I.E.C. scores, listing players and their runs.

ST. BARTHOLOMEW'S HOSPITAL v. HAMPTSTEAD.

This match was played on Saturday, June 20th, at Winchmore Hill. Rose won the toss, and sent in Sale and Fernie to face the

bowling of Wilson and Walker. With the score only 14, both Sale and Fernie were sent back.

Rose and Willett improved matters and took the score to 60 before the former was bowled by Wilson for a useful 18.

Pickering joined Willett, who was scoring freely off all the bowling sent down, and stayed till the score was 81, when he was caught at the wicket. 81-4-7.

Scoones joined Willett, and the stand of the innings was made. Both men scored freely, and the score was taken at a great rate to 138 before Willett was hit on the finger, and had to retire. The unfortunate was not to be able to finish his innings. Amongst his hits were a five and eight fours. On Whitwell joining Scoones another good stand was made, 33 runs being put on before Scoones was caught off Wilson for a well-played innings of 33. Marrack came in, and both he and Whitwell scored very fast.

The score reached 213 before Whitwell was out 1 b w to Williamson. He had made 60 in excellent style; he hit hard but not recklessly, and his innings was perhaps the best played for us we yet this season.

Marrack and Watson put on 53 for the eighth wicket, but at 266 Marrack was out for a hard hit 29.

Randolph joined Watson, and the pair took the score to 281, when the innings was declared closed. Watson was last out, having played very well for 30.

Hamptstead sent in Wilson and Jeaffreson, and the bowling was entrusted to Rose and Fernie. With the score 19 Wilson was bowled by Fernie. At 35 Robson also fell to Fernie. Jeaffreson and Williams raised the score to 62 before the latter was caught at the wicket off Fernie. On Lipscombe's joining Jeaffreson a great stand was made. Both men played well, and the score was taken to 150 before Jeaffreson fell to Randolph for a very good innings of 84. Andrews and Lipscombe now got together and put on runs at a great rate, the score reaching 214 before the time arrived and the match was left drawn.

Lipscombe's 75 not out was a good innings, characterised by hard and clean hitting.

Table with columns for ST. BART'S and HAMPTSTEAD scores, listing players and their runs.

INTER-HOSPITAL CUP TIE.

ST. BARTHOLOMEW'S HOSPITAL v. KING'S COLLEGE HOSPITAL.

This tie was played off on the Guy's Hospital ground at Honor Oak, on Monday, June 22nd. Bond won the toss and elected to bat, on what proved to be a fairly good wicket. Randolph and Jeaffreson faced the bowling of Strong and Levick. When the score was 21, Jeaffreson was caught by Hay off Levick. Greaves joined Randolph, and the pair put on 37 runs before Randolph fell to a catch at short leg by Levick off Strong. His 21 was a useful innings, and obtained in good style. Rose came in only to see Greaves bowled by Hay (who had gone on instead of Levick) without any addition to the score. Sale followed in, and soon began to score freely. Rose stayed with him till the board showed 70, when he was out 1 b w to Strong.

At this period with four good wickets gone for 70 runs matters looked none too bright for us, but on Scoones joining Sale a splendid stand was made. Both men scored with freedom, and ten after ten runs reeled off. With a fine on drive off McClintock, Sale registered his 50, at the same time bringing up the 150. Despite frequent changes of bowling the score still mounted at a tremendous rate: both men

were playing in brilliant style, and treating all the bowling sent down with the greatest freedom. With a single off Cocks, Sale completed his century, and celebrated the event by scoring 13 off that bowler's next over. Scoones completed his 50 after batting 70 minutes, and this was the signal for the batsmen to knock about the worn-out bowling more unmercifully than ever. Without becoming in the least reckless, both men continued to score rapidly, Sale bringing the 300 and his own 150 on the board simultaneously. At last a separation was effected, Sale after having hit the first three balls of an over from Levick for fours, had the misfortune to play the next one on to his wicket. The outgoing batsman's innings of 151 had been obtained by dashing and at the same time absolutely correct cricket. He did not give a single chance and hardly made a bad stroke until his score stood at 125, when he hit into cover-point's hands, which chance was not accepted, but this in no way detracts from the merits of his mastery performance. Too high praise cannot be given him. His chief hits were 3 fives, 21 fours, and 6 threes.

300-5-151.

Getting together when the score was 70 for four wickets, a very unpromising outlook, Sale and Scoones put on 230 runs before they were separated, a performance which speaks for itself.

Whitwell then joined Scoones, who continued to score freely. The score was taken to 330 before Scoones fell to a good catch by McClintock off Levick. Scoones's innings of 75 runs was worthy of all praise; he gave no chance as far as could be seen, and his cutting was especially fine. Without any addition to the score, Whitwell was bowled by Strong-

330-7-111

and with five more added Bond was run out. The innings was then declared closed with the total at 335 for eight wickets.

Strong was the most successful bowler, his four wickets being obtained for a shade under 20 runs apiece.

King's sent in McClintock and Bell, and the bowling was entrusted to Rose and Pank. With only a single scored, Bell was bowled by Rose in the first over.

1-1-0.

Strong followed in, and the score was raised to 22 before McClintock was caught by Pank off Rose. Levick joined Strong, and the pair made a very fine stand. Several changes in bowling were tried without success, the batsmen being well set and playing very good cricket. Strong completed his 50 with a fine off drive to the boundary, and Levick soon followed suit. With the score 147, Levick was caught by Whitwell off Randolph for a very well played 51. Without any addition to the score Plummer was bowled by Rose, and Briscoe came in. At 107 Strong's five innings was terminated by a smart catch at the wicket off Randolph. The outgoing batsman's 84 was a very plucky innings, and was made by free and resolute cricket. Included in it were 11 fours.

167-3-84.

With twenty more added, Briscoe fell to a fine catch by Sale off Rose, he having made a very useful 22.

187-6-22.

At 193 Cocks was bowled by Rose, and with only 1 added two more wickets fell-Marshall being caught off Rose, and Cheney bowled by Randolph.

194-9-0.

The last wicket put on 12 runs, but then Hay, who had made 9 in two hits, was bowled by Randolph, the innings closing for 205. We were thus left victorious in our first Cup tie by the handsome margin of 129 runs.

Randolph going on late in the innings obtained 4 wickets for 22 runs, but the bulk of the bowling was borne by Rose, who bowled practically throughout the innings. His analysis of six wickets for 59 was a very fine performance on a batsman's cricket, and none of the batsmen played his deliveries with the slightest confidence.

Table with columns for ST. BART'S and KING'S scores, listing players and their runs.

Table with columns for KING'S scores, listing players and their runs.

BOWLING ANALYSIS.

Table with columns for BOWLING ANALYSIS, listing players and their bowling statistics.

ST. BARTHOLOMEW'S HOSPITAL v. EALING.

This match was played at Ealing on June 24th, and resulted in a defeat for the Hospital by 2 wickets and 30 runs. This was by no means a bad performance considering that seven places were filled by members of the second eleven.

Rose won the toss and sent in Watson and Pickering. The start was disastrous, as Pickering was caught in the slips before a run had been scored. Matters had not been much improved before Sale was run out, due to bad judgment on the part of Watson. On Fernie joining Watson a good stand was made, 45 being added before Fernie was caught and bowled off the last ball sent down before lunch. He had made 31 by hard hitting when runs were wanted badly. Rose and Watson added 18 before Watson was bowled for a patient and well-played 33. On Marrack and Rose coming together the best stand of the innings was made, 52 runs being added, Rose doing most of the scoring. Marrack was caught in the slips at 136, and a few runs later Rose was 1 b w to Farr, being the sixth to go. He had been in while the score had been more than doubled-70 to 148, of which he claimed the large proportion of 55. He had played very well and had given no semblance of a chance. Forty-four more runs were added before the innings closed for 192, Drake 23 not out and Body 11 being chief contributors.

Ealing started their innings with Coode and Worth. Warth was bowled by Rose with only 13 scored. Alcock joined Coode, and they carried the score to 134 before Coode was caught at point. His 79 was a brilliant, hard hit innings; he should, however, have been run out very early in his innings. Farr, Perkins and Batchelor were all clean bowled by Rose without advancing the score much. Alcock was bowled at the wicket at 185. His 68 was not a very great innings, as he was badly missed by Marrack before he had scored, and twice afterwards gave easy chances in the slips, and, in addition, should have been run out. Jowitt and Cobb soon knocked off the necessary runs, Cobb being out off the last ball of the match. Our bowling was rather weak, though Rose's 5 wickets for 68 was a distinctly good performance.

Table with columns for ST. BART'S and EALING scores, listing players and their runs.

BOWLING ANALYSIS.

Table with columns for BOWLING ANALYSIS, listing players and their bowling statistics.

ST. BARTHOLOMEW'S HOSPITAL v. M.C.C.

This match was played on our ground at Winchmore Hill on Saturday, June 27th, and resulted in a draw. The visitors had rather a strong team, which included the Middlesex professional, Phillips. We won the toss and started batting with Rose and Scoones. Runs came slowly, both Phillips and Handford keeping very straight, and being very hard to get away. After 35 had been registered Scoones was bowled by Phillips. Fernie joined Rose, and the score went up steadily. Rose was hitting very cautiously, but Fernie was missed three times, two being fairly easy chances, before he had made 30. At 77 Rose was caught at the wicket, having made 38 by good steady batting. Sale came in, but was soon got rid of, as also was Randolph, who was bowled by a splendid ball from Phillips which he did not attempt to play. Pickering did nothing, but on Whitwell joining Fernie, who was now batting very finely indeed, runs came very freely, mostly from Fernie's bat. Fernie was at last out in a most extraordinary manner. He made a mighty hit off a half-volley from Phillips, and sent the ball straight back to the bowler, who just touched it with his fingers. The ball then struck the umpire on the head, falling him to the ground, and went back to Phillips, who secured it. Fernie was thus caught and bowled from a stroke which in an ordinary way would have added four runs to his account. He played very finely after lunch, though he had the good fortune to survive after Handford had hit his wicket, the ball failing to remove a bail. In his 86 were included seven fours. The rest did not do much, except Marrack, who made 13 not out, the innings closing for the good total of 211. The M.C.C. started with Long and Edmunds. Only 18 had been made when Long was caught at point by Watson off Rose. Soon after Edmunds was badly missed twice by Scoones at mid-off. With 45 on the board Handford had his leg stump removed by a fine ball from Rose. Edmunds was now batting well, hitting with great vigour, especially favouring Pank. When his total stood at 72 he was caught at the wicket off Fernie. Phillips and Nicholls played out time, bringing the score to 163.

SCORES.

Table with columns for St. Bart's and M.C.C. players and their scores. Includes names like E. F. Rose, W. E. Long, C. G. Watson, etc.

BOWLING ANALYSIS.

Table showing bowling statistics for St. Bart's players: Overs, Maidens, Runs, Wickets.

CUP TIE.

ST. BART'S v. GUY'S HOSPITAL.

This tie in the Semi-Final Round for the Hospital Cup was played on our ground at Winchmore Hill on Monday, July 6th. The attendance of Bart's men was above the average. Bond won the toss, and elected to bat on a wicket which, though at first somewhat difficult, improved later on. The start was disastrous, as with only a single score, Rose, who with Sale had opened the innings, played a ball from Clarke into his wicket.

Randolph came in, but only survived five overs, where he was out by a very poor stroke to Palmer.

Without any addition to the score, Scoones was captured in the

slips off Palmer from a similar stroke. Only one was added when Jeffresson, who was next in, fell to a catch at point off Clarke.

Things now looked terribly bad for us. Both bowlers were getting up a good deal, but this does not account for the poor show made by Scoones, Randolph, and Jeffresson, all of whom were out to very poor strokes off balls which should have been let alone. Greaves joined Sale, and made the first boundary hit off the last ball of Clarke's over. Sale now survived a very confident appeal for a catch at the wicket off Clarke, and the score began to mount slowly but surely. At 40 the first change in bowling was made, Nicholls replacing Clarke. Both men seemed well set, and Sale was beginning to score at a much faster rate when he was most unfortunately run out. Sale played a ball straight to cover point and called Greaves, but owing to a misunderstanding the latter did not start, and Sale failing to regain his crease lost his wicket.

He had played very well at a very trying period of the game, and had extremely hard luck in being run out, which fate, by the way, has been his in three out of his last five innings.

Whitwell joined Greaves, who continued to score freely, bringing about several changes in bowling.

In one over from Wetherell, who had replaced Nicholls, Greaves hit 3 fours, and Whitwell, who had begun with great care, soon began to follow his partner's example. The pair played very attractive cricket, and our prospects began to look brighter. With a single off Barker Whitwell brought up the hundred.

The score now mounted rapidly, Greaves obtaining his fifty by an on drive from Nicholls, who was bowling lobes from the Pavilion end. With the score 143, Clarke resumed at the far end, and immediately effected a separation by holding a return from Whitwell off his first ball.

Whitwell played extremely well for his 25, and the stand made for the eighth wicket was of great value to the side. Lunch was now taken, and upon resuming, Bond went in with Greaves. The score rose steadily, but at 170, in attempting to run four for a leg hit by Bond, Greaves failed to see that the ball was close to him, and was run out. It was a most unfortunate mistake, and was especially hard on the batsman, as he was within one of his century. Greaves' 99 was a very fine innings, unmarred by any chance; his hitting was hard and clean, and his cutting and on-driving were particularly good. Going in with the side in the apparently hopeless position of four wickets down for 9 runs, Greaves, batting with perfect confidence, stopped the disastrous "rot" which had set in and placed us in a more hopeful position. His innings was of untold value to the side. Marrack came in, but at 175 he lost Bond, who was caught by Nicholls off Clarke. His 14 was a useful innings. With only three added, Watson was "yorked" by Whitwell.

Marrack and Pank put on 9 and the innings closed for 187, with Marrack not out 8. Clarke was the most successful bowler, taking 5 wickets for 53 runs. This was a much better total than the first half hour gave us reason to expect, but still it was not by any means large enough to make victory even moderately certain. Clark and Nicholls opened the Guy's innings to the bowling of Rose and Pank. Nicholls soon showed a liking for Pank, whom he twice drove to the on boundary, but with the score 15 Clarke was bowled by a very good ball from Rose. Off the next ball, a full pitch, Alexander fell to a very good catch by Scoones at mid-on.

Trubshaw came in and played very carefully while Nicholls scored fairly fast. At 31 Trubshaw was out to a good return catch by Rose, and Wetherell came in. Pank now gave way to Whitwell, a change which immediately had the desired effect, as Nicholls placed the new bowler's fourth ball into Scoones' hands at mid on.

Humphrey came in, and soon began to score freely. The score was taken to 62 before Wetherell was out 1 b w to Whitwell.

Things now began to look well for us. Cohen helped Humphrey put on 20 runs for the sixth wicket, but at 82 he was bowled by Pank, who had resumed vice Whitwell. At 95 Humphrey, who had played extremely well for 23, was caught off Rose; and at 96 two more wickets fell, Barker sending up a ball from Rose into Watson's hands at point, and Palmer falling to a good catch off Pank by Whitwell at deep long off.

The last wicket put on seven, when Goddard was bowled by Rose, the innings closing for 103, and leaving us winners by 84 runs.

Our success was mainly due to the fine batting of Greaves, Sale, and Whitwell, and to the very good bowling of Rose, who secured the flattering analysis of 6 wickets for 29 runs. None of the batsmen were at all home with his deliveries, and bowling as he did unchanged, his performance was a very brilliant one.

SCORES.

Table with columns for St. Bart's and Guy's players and their scores. Includes names like E. F. Rose, A. E. Clarke, B. Rose, etc.

BOWLING ANALYSIS.

Table showing bowling statistics for St. Bart's players: Overs, Maidens, Runs, Wickets.

ASSOCIATION FOOTBALL CLUB.

The Annual General Meeting of the Association Football Club was held on Thursday, June 25th, in the Smoking Room. Mr. Jessop, the President, was in the chair.

The following officers were elected for the season 1896-97: Captain (1st XI)—R. P. Brown (re-elected). Proposed by L. E. Whitaker, seconded by H. J. Pickering. 2nd XI—C. J. Watson. Proposed by R. P. Brown, seconded by A. H. Hayes. Vice-Captain.—L. E. Whitaker. Proposed by H. J. Pickering, seconded by R. P. Brown.

Honorary Secretaries.—L. E. Whitaker and C. G. Watson having resigned office, E. W. Woodbridge and A. II. Hayes were elected as Secretaries for the coming season.

- The following were then elected on the Committee: 1. E. H. B. Fox, 2. A. Hay, 3. H. J. Pickering, 4. T. H. Talbot, 5. C. A. Robinson, 6. N. H. Joy, 7. J. A. Willett, 8. A. H. Boastock, 9. Freshmen, elected in October.

RUGBY FOOTBALL CLUB.

A general meeting was held on June 25th in the Anatomical Theatre, Mr. Weir in the chair. The following were elected officers of the Club for the ensuing season:

- President.—A. A. Bowley, Esq., F.R.C.S. Vice-Presidents.—A. N. Weir, Esq., F.R.C.S., H. Bond, P. O. Andrew, P. W. James. Captain (1st XV)—H. M. Cradock. Vice-Captain.—W. F. Bennett. Captain (2nd XV)—A. E. Hodgkins. Hon. Secs.—A. J. W. Wells, C. S. Hawes. Committee.—S. Mason, J. W. Nunn, W. H. Randolph, T. M. Dody, C. H. D. Robbs, H. C. Adams.

LAWN TENNIS CLUB.

Since the last 'JOURNAL' came out the club have played seven matches, including the Cup Ties, and of these seven matches have won six and lost one. The one that was lost was unfortunately the most important—the final of the Intra-Hospital Cup.

The draw for the Cup was as follows: London a bye, St. Thomas's v. St. George's, St. Bart's v. University, Guy's a bye.

St. Thomas's (the holders) easily defeated St. George's and London by 9 rubbers to 1 and 10 to love respectively.

For St. Bart's the following was the team in the first round of the Cup.—R. F. Baird, S. Bousfield, J. R. N. Marsh, V. Bell, F. E. Price, and P. Wood.

In the second and final rounds the following played.—R. F. Baird, H. W. Shewell, S. Bousfield, J. R. N. Marsh, V. Bell, and F. E. Price. The results are detailed below.

St. Bart's v. Hornsey.—This return match was played at Winchmore Hill on Saturday, June 13th. The Hospital won—6 rubbers to 3. Shewell and Marsh won 3, Price and Wood 2, and Crossley and Waterhouse won 1.

St. Bart's v. Walthamstow (2nd teams).—The following represented the Hospital.—P. Wood and C. H. Barnes, S. Hey and G. Wedd, S. Hayes and P. Harris. The Hospital won easily by 6 rubbers to 2.

St. Bart's v. University.—First round of the Cup. This was an easy win for the Hospital by 10 rubbers to 3. In the singles Bell was the only loser. In the doubles Baird and Wood won 2 and lost 1; Bousfield and Marsh won 2, and Bell and Price won 1 and lost 1.

St. Bart's v. Guy's.—Second round of the Cup. The Hospital again were easy winners, although Shewell and Price lost their singles and Baird and Shewell lost the only double they have lost in the inter-hospital matches. They won 2 rubbers, however, as did Bousfield and Marsh and Price and Bell. The result again was 10-3 in favour of St. Bart's.

St. Bart's v. St. Thomas's.—Final round. The holders of the Cup are undoubtedly a strong lot, with little difference between their pairs. The match was played on Wednesday, June 24th, in dull showery weather. The attendance of spectators and of the outside public was not large, the total number being one, a Bart's man. In the singles Baird lost to Pearce (St. T.), Shewell lost to Halsted (St. T.), Price lost to Brown, and Bell to Buzard. Bousfield and Marsh were in good form, and won their rubbers, v. Barton and Rotherham. The doubles were played in the afternoon, and resulted in a similar way to the singles, viz., 2 rubbers to 4 against us. Baird and Shewell had the satisfaction of beating St. Thomas's first pair, Barton and Pearce, after a very close match (10-8, 7-5). They also beat St. Thomas's third pair easily. The result was that St. Thomas's won the Cup again by 8 rubbers to 4.

It was disappointing that we could not get closer to the winners, but the team as a whole were distinctly "off" on the day. The winners are to be congratulated on the uniformity and steadiness of their play.

St. Bart's v. Croydon.—Played at Croydon on June 27th. The Hospital teams was Baird, Shewell, Price, Bell, Crossley, and Waterhouse. This was an exciting match. Baird and Shewell had won 3 rubbers and Price and Bell 1. Our opponents had also won 4, so that the result depended on Crossley and Waterhouse, who were playing Croydon's first pair. They both played very pluckily, and won fairly easily at the finish, giving the match to us by 5 to 4.

St. Bart's v. Surbiton (2nd teams).—Played at Surbiton on July 1st. The following played for the Hospital: Waterhouse and Woolcombe, Wedd and Wyndham, Barnes and Bull. This alliterative team beat their opponents by 5 rubbers to 3, after a pleasant and even match.

Abernethian Society.



IN SPITE of the tropical temperature and the "Final College" there was a very large attendance on Thursday, July 6th, to hear Dr. Gee's mid-annual address on "The Confit of Medicine with the Small-Pox." When the President, Mr. Stephens, took the chair the Medical Theatre was packed, even the top gallery being called into requisition. The nursing staff was well represented. Of the charm of Dr. Gee's address itself it is impossible to give an idea in a few short extracts, and unnecessary, as it will be shortly published in extenso for the Society's use. A vote of thanks, proposed by Mr. D'Arcy Power and seconded by Mr. Stack, was carried with acclamation. Altogether the meeting was a pronounced success.

The 100th Session will begin on Thursday, October 8th, when Mr. Howard Marsh will deliver the opening address.

St. Bart's Hospital Athletic Sports.

President.—A. A. Bowly. Judges.—S. K. Holman, B. C. Green, and J. E. S. Sloan. Starter.—Dr. H. M. Fletcher. Timekeepers.—P. Furnivall, Nat Perry (pro.), Handicappers.—A. Hay, P. W. James, S. Mason, S. F. Smith. Captain.—S. Mason. Hon. Secs.—G. W. Stone, W. F. Bennett.

The 17th annual meeting of the Sports was held on Wednesday, June 10th. The entries were larger than usual, but owing to the weather the fields were not quite so good as expected. It rained steadily with hardly a break throughout the afternoon, the track in some places being under water. Considering this the performances on the whole were very satisfactory.

Grimshaw proved himself to be a good all-round man, securing the level One Hundred Yards and One Hundred and Twenty Yards Handicap, second Long Jump, and third Quarter Mile.

Mason ran an excellent quarter in 54½ secs. He has unfortunately been unable to train properly on account of a bad foot, otherwise it would no doubt have been a second or so faster. Bennett won the weight from scratch with a put of 35 ft. 6 in., and A. L. Vaughan came in easily first in the Mile by about 50 yards.

Mr. Bowly kindly presented a Challenge Cup for the Hundred Yards Scratch Race this year, which will no doubt help considerably to make competition keen.

Our best thanks are due to Mrs. James, who came down in spite of the weather and presented the prizes, and to the officials who helped to make the meeting a success. Brief details: 100 YARDS SCRATCH.—C. R. A. Grimshaw, 1; C. A. Robinson, 2; C. Fisher, 3. A very close race, not more than a foot separating the first three. Time, 11 secs.

HALF-MILE HANDICAP.—J. F. Forbes, 4 yds. start, 1; A. F. Page, 50, 2; A. Ll. Vaughan, 35, 3. Won by five yards, ten separating second and third. Time, 2 min. 13 secs.

120 YARDS HANDICAP.—C. R. A. Grimshaw, 5 yds. start, 1; H. W. Paul, 8, 2; E. L. Hughes, 6, 3; A. M. Ainsler, 7, 4. Grimshaw got up in the last couple of yards, and won by a foot; a yard between the next two. Time, 12½ sec.

HIGH JUMP.—S. F. Smith, scr., 5 ft. 2½ in.; G. W. Stone, scr., 5 ft. 1½ in., 2.

120 YARDS HURDLE HANDICAP.—E. W. Woodbridge, owes 10 yds., 1; J. W. Nunn, owes 5, 2; S. F. Smith, scr., 3. The ground being very slippery, all fell but the first two. Won easily; no time taken.

LOSE JUMP.—E. W. Woodbridge, allowed 1 ft., 18 ft. 10½ in.; C. R. A. Grimshaw, 14 ft., 18 ft. 4½ in., 2.

400 YARDS CHALLENGE CUP.—S. Mason (holder), 1; C. Fisher, 2; C. R. A. Grimshaw, 3. Won by 20 yds., 5 yds. between second and third.

PUTTING THE WEIGHT.—W. F. Bennett, scr., 35 ft. 6 in.; J. A. West, allowed 3 ft., 34 ft. 5 in., 2.

FRESHERS' 220 YARDS SCRATCH.—L. M. Morris, 1; E. L. Hughes, 2. Won by a few inches. Time, 25½ secs.

THROWING THE HAMMER.—J. A. West, allowed 25 ft., 90 ft. 3 in.; E. J. Deck, 30 ft., 85 ft. 4 in., 2.

ONE MILE HANDICAP.—A. Ll. Vaughan, 50 yds. start, 1; A. F. Page, 50, 2; F. M. Howell, 60, 3. Won easily by 50 yds., 10 yds. between second and third. Time, 4 min. 40½ secs.

ONE MILE STRANGERS' HANDICAP.—W. A. McEnery, M.H.A.C., 115 yds. start, 1; E. J. Wilkins, L.A.C., scr., 2; W. Baker, L.A.C., 115, 3; Sid Thomas, L.A.C., 55, 0; W. Paul Jones, L.A.C., 55, 0. Wilkins ran with excellent judgment, but was beaten by 5 yds.

The following Bart's men have been selected to represent the United Hospitals A.C. v. L.A.C.:

QUARTER MILE.—S. Mason (2).
WEIGHT.—W. F. Bennett (1), J. A. West (2).
HIGH JUMP.—S. F. Smith (2).
THREE MILES.—A. Ll. Vaughan (2).
HAMMER.—W. F. Bennett (1).

United Hospitals Athletic Sports.

THE "United" Sports were held on June 24th at the L.A.C. Grounds at Stamford Bridge. The general expectation was that St. Mary's would win the Shield, but there was always a reasonable chance that St. Bart's might disappoint them, so that the interest taken in the competition was not less than in some of the more prosperous years of the past.

The two sprints were known to be moral certainties for Woodyatt of University, and the hurdles, in the absence of Johnston for Coltart of St. George's. The remaining eight events seemed to lie between St. Mary's and ourselves. We felt pretty sure of the weight and hammer, for though Bennett had not been putting quite so well as usual, a moderate performance by him was good enough to win. Leggatt, of St. Mary's, was, on form, distinctly the best man at the jumps. In the quarter and half we had Mason as against Butler of St. Mary's. Butler had been running very well, but Mason, unfortunately, had been recently warded with a bad foot, and had only been able to train for a fortnight. It was therefore hardly expected that he would win, and no disgrace to him to be beaten. In the mile and three miles we were represented by Forbes and Vaughan respectively, Leaning of St. Mary's, who ran second to Munro in both events last year, being considered their most formidable opponent.

Results were almost exactly as anticipated. St. Mary's won the Shield with 5 firsts and 1 second; Bart's were second with 3 firsts and 21 seconds; University third with 2 firsts and 1 second.

Our chance of victory was not finally destroyed until the decision of the last event but one, for had Mason beaten Butler in the quarter-mile, we should just have won the Shield.

Two hospital records were lowered during the afternoon: Woodyatt ran the 220 yards in 22½ secs., beating Bell's 22½, while Leggatt cleared 22 ft. 8 in. in the long jump, beating B. C. Green's record of 21 ft. 10½ ins. Leggatt's jump is the best ever done at the ground, and considering that the "take off" at Stamford Bridge is not what it might be, it is not so very far from Fry's 23 ft. 6½ in., the present amateur record. Leggatt should easily win the long jump at the A.A.A. championship meeting, and will have a very good look in for the high jump, for he cleared 5 ft. 7 in. at the United Sports, and has since done 5 ft. 9½ in.

Woodyatt's performances in the 220 and 100 were even better than the times indicate, for there had been a very heavy shower just before the sports began, and the track for a time was partially under water. He, also, has a fair chance of becoming an amateur champion.

Butler's times in the quarter and half were fair, but he has done better. Mason has done faster times in both events.

In the hammer, Bennett's throw of 92 ft. 1½ in. was less than 3 ft. behind the hospital record.

It is a great pity that Johnston had not time to train for the hurdles. He would probably have had no difficulty in winning that event for us, for Coltart does not appear to be in quite such good form as last year.

The mile and three miles were both interesting races, but the times are not quite up to Munro's. Forbes stuck to it very pluckily in the last lap of the mile, and might perhaps have won if he had not let Leaning get so far ahead a quarter mile from home.

J. A. West (who, I believe, is no relation of "Willie" West) was second in the weight. He should improve considerably with practice and instruction. At present he rarely comes well up to the line, and does not get the advantage he should from his run. He should also be very useful to us in future years as a hammer thrower.

Vaughan ran very well in the three miles, showing good judgment. Fisher, who ran for us in the quarter-mile, has pace, but cannot quite stay the distance at present. He is only a fresher, however, so there is plenty of time yet before him.

Taken altogether, our prospects for next year are pretty good; nearly all our this year's representatives will be available, and the majority of them are likely to be capable of even better things than this year.

DETAILS.

100 YARDS CHALLENGE CUP.—Holder, H. C. Woodyatt, University. Time 10½ secs. Record, B. B. Conolly, Guy's, 10½ secs., 1868. H. C. Woodyatt (University), 1; F. W. Sime (Guy's), 2; C. H. Francis-Williams (St. George's), 3. Woodyatt got off badly, but at half distance drew away and won by two yards, a foot between second and third. Time, 10½ secs.

HALF-MILE CHALLENGE CUP.—Holder, A. G. Butler, St. Mary's. Time, 2 min. 0½ secs. (record). A. G. Butler (St. Mary's), 1; F. E. Walker (Guy's), 2; S. Mason (Bart's), 3. Batchelor went off with the lead, with Walker next, Butler and Mason keeping behind. In the second lap Mason improved his position, and took the lead at the top bend. Butler soon passed him, however, and keeping the lead won by two yards; Walker just beat Mason for second place. Seven ran. Time, 2 min. 25½ secs.

PUTTING THE SHOT.—Holder, W. F. Bennett, St. Bart's, 35 ft. 10 in. Record, W. G. West, St. Bart's, 38 ft. 3 in. (1889). W. F. Bennett (St. Bart's), 1; 34 ft. 0½ in.; J. A. West (St. Bart's), 2; 31 ft. 7 in.; C. Graham (St. Mary's), 3; 31 ft. 3½ in.

120 YARDS HURDLE CHALLENGE CUP.—JOHN Holders, J. Johnston, St. Bart's, and H. N. Coltart, St. George's. Time, 16½. Record, J. Johnston, St. Bart's, 16½. H. N. Coltart (St. George's), 1; F. H. Allfrey (Guy's), 2. Coltart led all the way, and won by two yards. Woodbridge, of St. Bart's, fell and did not finish. Time, 17½ secs.

220 YARDS CHALLENGE CUP.—Holder, H. C. Woodyatt, University. Time, 22½ secs. Record, H. T. Bell, 22½, 1892. H. C. Woodyatt (University), 1; F. Sime (Guy's), 2; C. H. Francis-Williams (St. George's), 3. An even start. After running twenty yards Woodyatt showed in front, and gaining all the way won by six yards. A yard between second and third. Time, 22½ secs. (a hospital record).

HIGH JUMP.—Joint Holders, H. T. Bell, Guy's, and C. B. Adams, Middlesex; 5 ft. 7½ in. Record, H. T. Bell, Guy's, 5 ft. 8 in., 1892. C. E. H. Leggatt (St. Mary's), 1, 5 ft. 7 in.; S. F. Smith (St. Bart's), and C. B. Adams (Middlesex), 2, 5 ft. 5 in.

ONE MILE CHALLENGE CUP.—Holder, H. A. Munro, Guy's. Time, 4 min. 31½ secs. (record). R. C. Leaning (St. Mary's), 1; J. F. Forbes (St. Bart's), 2; L. S. Gaskell (London), 3; M. A. Smith (Charing Cross), 4; ten ran. Forbes was third at the quarter, and first at the half-mile, Leaning being then third. Leaning went in front 600 yards from the finish, and led Forbes by five yards on entering the last lap. Up the back straight Leaning increased his lead to about ten yards, but in the last 250 yards Forbes was gaining, and was only beaten by three yards, though Leaning ran for all he was worth. Gaskell just beat Smith for third place, a dozen yards behind Forbes. Time, 4 min. 42½ secs.

THROWING THE HAMMER.—Holder, E. N. Scott (Guy's), 85 ft. 1 in. Record, J. E. Frazer (St. Bart's), 94 ft. 10 in., 1890. W. F. Bennett (St. Bart's), 1, 92 ft. 1½ in.; C. Graham (St. Mary's), 2, 79 ft. 1½ in.; J. A. West (St. Bart's), 3.

LONG JUMP.—Holder, C. E. H. Leggatt (St. Mary's), 20 ft. 11½ in. Record, B. C. Green (St. Bart's), 21 ft. 10½ in., 1891. C. E. H. Leggatt (St. Mary's), 1, 20 ft. 8 in.; C. M. Row (University), 2, 19 ft. 10 in.; H. N. Coltart (St. George's), 3, 19 ft. 6 in. Leggatt's jump is a Hospital Record, and also a record for the ground. Several of his of his other jumps exceeded B. C. Green's best. Nunn and Woodbridge jumped for Bart's, but were unplaced.

QUARTER-MILE CHALLENGE CUP.—Holder, A. G. Butler (St. Mary's), 52½ secs. Record, T. A. Guinness (King's College), 51½ secs., 1880. A. G. Butler (St. Mary's), 1; F. E. Walker (Guy's), 2; E. A. Longhurst (Guy's), 3. Fisher, of St. Bart's, led off, but was passed by Walker opposite the Pavilion. Along the back stretch Leaning gave up at the half-distance, being at that point about 20 yards behind the leaders. Vaughan kept his place behind Baker till half a mile from the end, when he forged ahead and won by 30 yards, 110 yards divided second and third. Time, 16 min. 10½ secs.

THREE MILE CHALLENGE CUP.—Holder, H. A. Munro (Guy's). Time 15 min., 29 secs. Record, H. A. Munro (Guy's); time 15 min. 10 secs., 1894. A. Ll. Vaughan (St. Bart's), 1; W. L. Baker (Guy's), 2; G. R. Elwin (St. Mary's), 3; R. M. Barron (Guy's), 4. Elwin led at the mile; halfway through the seventh lap he was passed by Baker, who drew away with Vaughan at his shoulder. He failed to stay down the straight, however, and Butler went ahead; Walker, Leggatt and Longhurst also passing Mason. Butler won by 2½ yards, the next three being separated by very little. Time, 53 secs.

The prizes were afterwards distributed by Mrs. Voelcker. It was announced that St. Mary's Hospital would present a Challenge Cup for the Long Jump in commemoration of their success.

The Junior Staff Concert.

THE Annual Summer concert given by the members of the Junior Staff and of the Musical Society took place in the Great Hall of the Hospital on June 26th.

As usual, the night was a very hot one. The Hall, however, was quite full, notwithstanding that a large number of the visitors preferred to listen to the concert while sitting in the cooler atmosphere of the shelters in the square. The shelters proved a distinct addition to the success of the concert, and prevented the Hall from becoming overcrowded. We do not know how much

of the concert those sitting in them heard. There was considerable regret that so few of our Staff were present, but in spite of this drawback the concert was unanimously voted a great success. The Junior Staff again entertained their guests on a large scale in the Library, where refreshments of a kind suitable to the weather were served. Excellent arrangements were made to avoid the crowding in the Library which occurred last year, and these were excellently carried out. Following the precedent of last year, several ladies not connected with the hospital were asked to assist, and their presence was greatly appreciated, and had much to do with the success of the evening.

The programme commenced with Rossini's "Overture to Italiana." This was followed by Alice Long Smith's "Ode to the North-East Wind," sung by the members of the Hospital Choral Society, accompanied by the full orchestra. This is not a very interesting work, but the performance of it was very satisfactory, and a great improvement on last year's cantata. Madame Vortsarger next sang Bishop's beautiful song "Tell me, my heart." Mr. Myers made his first appearance at the Junior Concert, and played a couple of violin solos in excellent style. Mr. Myers has great command over his instrument, and played with considerable feeling; he will, we are sure, prove a great acquisition to the Society. Mr. Percival Wood next sang "I would I were a king, fair maid," by Sir Arthur Sullivan. Mr. Wood's rendering of the song was no less admirable than his voice, which is rich and mellow, and that the audience appreciated this was shown by the enthusiastic applause. The first part of the concert was concluded with the Gordon March, performed by the Hamilton Quartette of Mandoline Players. The mandolines were quite a novelty, and sounded very well. The players were all very finished performers.

The scene in the square during the interval was quite a gay one, the guests, so soon as they had partaken of refreshments, walking about the square or sitting in the shelters, so that the square had a most animated appearance; indeed, it was difficult to believe that one was still in the heart of the City of London.

The second part of the programme commenced with two movements of Mendelssohn's Scotch Symphony, which were admirably played by the orchestra. We must here give a word of praise to the orchestra. Their play all through the evening was admirable. Dr. Samuel West next sang two old English ballads, "Mary" and "Phyllis is my only joy." Dr. West is so well known to all who have been at any of the House concerts that we need not add our testimony of praise. On this occasion he surpassed himself. "Mary" suited his voice admirably. It is a quaint little song, and one much less known than it deserves to be, and we can only say that Dr. West's rendering of it was simply charming; he was compelled to bow his acknowledgments several times, and finally the audience only desisted from their applause on his consenting to sing "Mary" over again.

The audience were next delighted with a mandoline solo played by Miss Hamilton Smith in a most excellent manner. The same talented artiste next sang "My heart's beloved," by J. H. Cowen. She has a very rich and full contralto voice with an exceedingly clear enunciation, and this song suited her voice admirably.

The Hospital Choir—ever pleasing and welcome sight—next reappeared, and sang "Spirits, advance," accompanied by the orchestra; and the concert was concluded with an excellent performance of the Rondo from Beethoven's No. 2 Concerto.

As we have already remarked, the concert was undoubtedly a great success, and we were pleased to see that some of the faults pointed out in the JOURNAL last year had been remedied, notably in regard to 20 minutes to 11, which was a decided improvement.

We still venture to suggest that a Cantata is out of place at such a concert; it takes up too much time for a two hours' programme. It is difficult to get a suitable piece not too long and not too ambitious, and yet interesting. The Cantata chosen has been performed before at the summer concert, and we do not think it of sufficient importance to warrant its production so soon again. The melody in places is pretty, but as a whole we think the programme would have been improved by the substitution of a couple of good part-songs, more especially as we think that the Choir this year was a distinctly good one, and would have sounded even better had they sung unaccompanied. In conclusion we should add that Messrs. Paterson and Pollard ably fulfilled the duties of accompanists during the evening.

The programme, designed by Mr. W. N. Barron, was well got up in true "art" style, and very much admired.

Appointments.

COLLINS, W. J., M.D., F.R.C.S., B.Sc., Cert. Pub. Health, has been appointed Surgeon to the Royal Eye Hospital at Southwark.

SPENCER, Walter George, M.B.Lond., F.R.C.S.Eng., appointed Examiner in Physiology for the Second Examination of the Royal College of Surgeons of England.

BRODIE, W. H., M.D.Edin., appointed Medical Officer to the Workhouse of the Battle Union.

DACK, H. H., M.D.Lond., M.R.C.S.Eng., appointed Medical Officer for the Sparham District of the Mitford and Launditch Union.

DE SANTI, Philip R. W., F.R.C.S., appointed Lecturer on Aural Surgery to Westminster Hospital Medical School.

BOWES, T. Armstrong, M.R.C.S.Eng., L.S.A., appointed an Honorary Medical Officer to the Herne Bay Cottage Hospital.

ROGERS-TILLSTONE, J. M., M.R.C.S., L.R.C.P., appointed Medical Officer and Public Vaccinator for the Second District of the Malling Union. *vice* H. E. Taylor, M.D., resigned.

WOOLLIGHT, A. P., L.S.A., appointed Senior House Surgeon to the West Ham Hospital.

Cases of Special Interest.

Medical.

- Luke, bed 6.—Locomotor ataxy.
 Luke, bed 10.—Aortic disease.
 Luke, bed 14.—Old hemiplegia and paralysis of cranial nerves.
 Matthew, bed 7.—Cirrhosis hepatis, enormous superficial abdominal veins.
 Faith, bed 3.—Congenital morbus cordis.
 Faith, bed 16.—(?) Enteric fever.
 Hope, bed 11.—Aneurysm of right carotid.
 Hope, bed 7.—Abdominal tumour.
 Hope, bed 11.—Paralytic agitate.
 John, bed 15.—Ulcerative endocarditis.

Examinations.

SOCIETY OF APOTHECARIES—*Surgery*—T. B. Bokenham, P. M. Brittain. *Forensic Medicine*—T. Gregg.
 B. E. SAWWELL has passed the first M.B. Cambridge in Biology.
 C. N. BULL and A. M. Ware have passed the second M.B. Cambridge in Anatomy and Physiology.
 J. W. Bowd has passed the first L.S.A. in Anatomy and Physiology, and R. F. Ellery, A. Farrington, H. B. Gibbins, B. C. Green, G. R. Lucas, C. G. Meade, and H. F. Stilwell have passed in Physiology only.

Reviews.

MARSHALL ON THE FROG. Edited by G. HERBERT FOWLER. Sixth edition. (David Nutt). This excellent little practical book is too well known to need more than a passing notice. It is only very slightly altered from previous editions, but such modifications as appear have been suggested by experience of working with it in the

teaching of larger classes in Elementary Biology. In all essential features, however, it follows the well-known lines of teaching adopted by the late Professor Marshall. Every Medical student, whether studying for the University of London or the Conjoint Board should have this excellent practical guide, and he would do well to take it as his model for thoroughness in practical study, and endeavour to apply its methods in the pursuit of other branches of his professional education.

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. Kanthack, at the following rate:

	s. d.
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Any further report will be charged for at a special rate. If a mounted specimen is desired an extra charge of 1s. will be made. If a telegraphic report is 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 E. H. Shaw, 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.

Births.

MASTERMAN.—On July 5th, at Bludan, Syria, the wife of Ernest W. Gurney Masterman, F.R.C.S., F.R.G.S., of Damascus, of a daughter.

POWELL.—On 12th inst., at Glenarm House, Upper Clapton, N.E., the wife of Herbert E. Powell, M.R.C.S., L.S.A., of a son.

Marriages.

BRIGHT—CARR.—On July 7th, at Christ Church, Beckenham, by the Rev. John Harding, M.A., Vicar, Archibald Leonard, son of the late John Brett Bright, of Totterton Hall, Shropshire, to Laura Frances (Lily), daughter of the late Ambrose Patient Carr, of Boyton House, Beckenham.

HOFFMEISTER—PAGE.—On June 16th, at Norton, Stockton-on-Tees, by the Rev. T. Errington Scott, Vicar, Henry Edgar William Hoffmeister, M.A., M.B. (Camb.), M.R.C.S., &c. of Cowes, Isle of Wight, to Mary Seymour Page, fourth daughter of the late Robert Page Page, of Norton, Stockton-on-Tees.

Deaths.

BROWN.—On May 14th, William Leopold, eldest son of W. Barnett Brown, M.D.Lond., aged 23.

BOWMAN.—On July 17th, H. M. Bowman, M.D.Lond., M.R.C.P., suddenly of heart disease.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *St. Thomas's Hospital Gazette*, *St. George's Hospital Gazette*, *St. Mary's Hospital Gazette*, *London Hospital Gazette*, *The Nursing Record*, *The Hospital*, *The Charity Record*.

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. ROOTY, Advertisement Cameraman and Collector, 20, 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, 1896.

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

The Conflict of Medicine with the Small-Pox.

Being the Mid-Sessional Address to the
 Abernethian Society, delivered on Thursday, July 9th, 1896.

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

ON May 14th, 1796, Dr. Edward Jenner inoculated his first patient for the cow-pox. When you asked me to give such an address as might in some sort celebrate the hundredth anniversary of that event, you doubtless knew that my practical knowledge of vaccination is very small. When I was first elected assistant physician at this hospital, the governors charged Dr. Church and me with the duty of vaccinating all children who were brought to us for that purpose. In this way I learned the little I

know about the subject. But the competition of medical men outside the hospital stopped our supply of children in the course of no great length of time; and now students who wish to learn vaccination have to go elsewhere. I mention these facts because I have little taste for retailing other men's opinions which I have no means of putting to the test for myself. Vaccination is a matter which seldom crosses my mind; so that I hope you will not have expected that I shall discuss all the debatable points with which the topic of vaccination teems. Nor shall I repeat, at any length, the oft-told tale of Jenner's life and his discovery. I shall take leave to widen the boundaries of my theme, and to occupy the time at my disposal this evening by a sketch of the history of the conflict of medicine with the small-pox.

Let us take medicine in its broadest sense, and accept Plato's definition that medicine is the science of health: not only the science of curing disease, but also the science of preserving health in general (what is called hygienics), and the science of preserving health from the attack of special diseases (or prophylactics).

Turning now to the consideration of small-pox, I must remark in the first place that it is commonly assumed that the poison has but one source, namely, contagion from man. Jenner was of a different opinion, as I shall show hereafter. But assuming that contagion from man is now the only source of the disease, we may, with reason, ask whether history can tell us when the morbid poison first appeared in the world. All that we know is that about a thousand years ago a Persian named Rhazes wrote a book upon small-pox and measles, the most important work which the Arabian school of medicine has left us. Rhazes' book is written in Arabic: some have supposed that the disease first arose in Arabia, and one reason for the supposition is that so many contagious diseases have travelled westward, with the sun; as Bishop Berkeley said, "Westward the course of empire takes its way." Epidemic cholera certainly comes to us from the East; so does influenza, and the plague. Diphtheria used to be called the Egyptian disease; possibly its original habitat was the valley of the Nile, as the valley

of the Ganges seems to breed cholera, and as influenza was thought to have been caused by inundations of the Yellow River in China. Only one English disease that I know of, has been supposed to come to us from the West; but this cannot be proved; and that true American disease, the yellow fever, has never been able to settle on this side of the Atlantic. Concerning the fountain head of the small-pox poison we know nothing at all, nor do we know when it made its first appearance in England.

In an Anglo-Saxon book on medicine, called *Læce Boc*, written about the year 950, reference is made to a disease called póc adl or pustular disease, which may or may not be a name for variola. But in the *Compendium Medicinæ* of Gilbertus Anglicus, written three hundred years later, or about 1250, there is a chapter upon variolæ and morbilli, which were, no doubt, our small-pox and measles. About sixty years later, John of Gaddesden wrote his book called *Rosa Medicinæ*, which I mention because the treatment which he recommends for small-pox has become famous. A red scarlet should be taken,—scarlet is a Persian word which originally signified not a colour, but some kind of costly thin cloth,—I say he recommends that a red scarlet be taken, or any other red cloth, and that the variolous patient be entirely wrapped up in it. He goes on to say that he thus treated a son of the most noble king of England, and that he made everything round the bed to be red, and that it is good treatment, and that he cured his patient without any traces of the variolæ. The king was Edward I, and the son is supposed by Dr. Norman Moore to have been Thomas of Brotherton. For this method of treatment, John of Gaddesden has been held up to ridicule or worse; Sir Thomas Watson fears that he was a very sad knave; but there is no evidence that John of Gaddesden was a knave, or that he invented this special method of treatment, which turns out to be not at all ridiculous. Totally to exclude the rays at the violet end of the solar spectrum from acting upon the skin is said to have the remarkable effect of preventing pitting in small-pox, and this is just what Gaddesden tells us he succeeded in doing—"I cured him without any vestiges of the pocks." Many physicians during the last few years have treated variolous patients by red light, and you may read an account of the results in the *British Medical Journal* for December 7th last year.

Dr. Norman Moore tells me that in a manuscript copy of the *Diagniarium Bartholomæi*, compiled by John Mirfield, a canon regular of St. Austin in the priory of St. Bartholomew in West Smithfield, and written about 1387 for the hospital of St. John the Baptist attached to the Abbey of Abingdon, a manuscript which is now in Pembroke College, Oxford, on fol. 43a, after the heading "De variolis et morbillis" are written the words "i.e. smal pocks." This is the earliest known use of the term small-pox.

In what year soever the disease was brought among us,

it became in course of time a dreadful scourge. I suspect that it reached its highest degree of virulence in the seventeenth century; at least the literature of that period teems with allusions to small-pox. Even the poets could not avoid the disgusting theme. If they wished to bewail the death of a friend, in all probability he died of the small-pox. Dryden wrote elegies upon two of its victims. The first was Lord Hastings, who died in 1649 at the age of 19. The poet was still younger, and he had not yet sacrificed to the Graces. Lord Hastings being—

"Replenish'd then with such rare gifts as these,
Where was room left for such a foul disease?
Was there no milder way than the small-pox?
The very fitness of Pandora's box."

Mrs. Anne Killigrew died of variola in 1685 at the age of 25, and she attained the honour of being celebrated by the same poet in much nobler verses. Mrs. Katherine Phillips, "the matchless Orinda," died of small-pox in 1664 at the age of 33; she was lamented by Cowley. In 1675, Oldham devoted an ode of extraordinary length to the memory of his friend, Mr. Charles Morwent, who was carried off by small-pox. These instances occur to my mind at once. Writers of a satirical turn condoled with ladies upon the sad loss of beauty which ensued when they escaped with life from the dreadful pest. Verses were written "Upon a gentlewoman whose nose was pitted with the small-pox," and so on. Three powerful monarchs underwent small-pox at this time: Louis XIV of France, Charles II of Spain, and Charles II of England. Charles II's brother, Henry Duke of Gloucester, died of the disease. No doubt many of you remember Macaulay's account of the death of Queen Mary, wife of William III. She "had during two or three days been poorly; and on the preceding evening grave symptoms had appeared. Sir Thomas Millington, who was Physician-in-Ordinary to the King, thought she had the measles. But Radcliffe, who, with coarse manners and little book learning, had raised himself to the first practice in London, chiefly by his rare skill in diagnostics, uttered the more alarming words, small-pox. That disease, over which science has since achieved a succession of glorious and beneficent victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid; but the plague had visited our shores only once or twice within living memory; and the small-pox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it spared the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover."

The poor Queen was only 33 years old. she died of hemorrhagic small-pox on the eighth day.

No wonder that those who had never suffered from the

disease lived in a perpetual terror, of which we have no experience. Take this instance: "You remember the Scriblerus Club of Queen Anne's time, and their wonderful researches among the monkeys of Ethiopia. But the usual journeys of the club were in a narrower circle; and upon one occasion they resolved to walk from London to the seat of Lord Bathurst, near Twickenham. Soon after they had started, Swift, whose powers of foot were large, pushed on before his comrades, with the intention of securing the best bed for himself. But his design miscarried; for Parnell, by borrowing a horse and taking a different road, outstripped even the stride of Swift. Arriving at the house Parnell consulted Lord Bathurst as to the likeliest method of defeating the selfish traveller. Now, as it happened, Swift never had the small-pox, and was especially afraid of it, for not one in a thousand escaped the infection. This fact solved the difficulty. Swift was no sooner seen advancing rapidly than a servant hastened out to meet him, and communicate the disastrous news that the disease which he most dreaded was making fierce ravages in the family; but a special message was added that Swift would be provided with a bed in a summer-house in the garden, and with a cold supper, which repast was accordingly sent him. Meanwhile his companions were feasting joyously indoors, but presently relenting, they released their brother from his exile, on a promise never to offend in the matter of beds again."

Such was the small-pox two hundred years ago; let us now inquire how our forefathers treated the disease. I turn to a translation of Riverius' *Præticæ of Physic* published in London in 1668, and I read as follows: "The cure of the small-pox is performed in the satisfaction of four indications. Whereof the first consists in the evacuation of the peccant humours; the second in assisting the motion of nature, or helping to expel the pox; the third in the opposition of the malignant and venomous quality; the fourth in correction of symptoms. First, that the patients be kept in a warm room, to the end their pores may be kept open, and the breaking out of the small-pox may there be furthered. Therefore they must be kept in a chamber well shut, which the cold air must in nowise enter into. And for the same cause they must be moderately covered with clothes. Many are also wont to keep an ewe or wether in the chamber or on the bed," and so on, for time will not allow me to enumerate all the other details of treatment,—the alexipharmacs, the cordials, the discordium, Venice treacle, and applications to the skin. And when you bear in mind that these therapeutics were carried out, in most cases, not by physicians but by very ignorant women, you will readily agree that recovery of the patient was not much beholden to the treatment. But a man had arisen who was to change all this: Thomas Sydenham published his first medical work in 1666, and the treatment of small-pox constituted an important

part of his subsequent writings. What Sydenham said in effect was this: "You may talk as much as you please about evacuating peccant humours, assisting the motion of nature, and opposing malignant and venomous qualities, and I myself may sometimes use such expressions; but, in the name of common sense, bring your treatment to the test of experience; do most patients recover under this method of treatment or under that?" And he came to the conclusion that most patients recovered under a treatment which was in many respects contrary to that in customary use; and he introduced what was called the cooling treatment. You will find it best set forth in his *Epistolary Dissertation*. For example, the noble Lady Dacres sent for him to attend her grandson, Mr. Thomas Cheut, in the flower of his age, and suffering from what turned out to be a very severe attack of confluent small-pox. Take this as a sample of Sydenham's treatment of the young man about the end of the first week, when things were at their worst. "I gave him an ounce of syrup of poppies out of cowslip water at bedtime, and repeated it every night. I allowed him no more than his usual bedclothes. He might eat oatmeal porridge and barley broth, and occasionally a roasted apple. He might drink a little small beer. On the eighth day I laid an onion wrapped in linen, on the soles of his feet, and renewed it every day until he was out of danger," a harmless remedy, even if useless. Sydenham might have complained with Virgil, *Hos ego versiculos feci, tulit alter honores*, for the physicians who came after him reaped the profit of his improvements in medical practice, and especially Radcliffe, whom Macaulay speaks of in the passage I quoted to you just now. We know almost as little of the life of Sydenham as of the life of Shakespeare. The impression left upon my mind is that Sydenham was not a very successful man as the world commonly reckons success; but I think he attained the most precious gift which man can attain to, namely, inward peace. He ends the *Epistolary Dissertation*, to which I just now referred, with this strain of reflections. "And now, worthy sir, I desire you to accept this small treatise favourably, which was designedly written to return you thanks for your approbation of my other works. And, indeed, I have so seldom received anything like approbation, that either I have merited no such thing, or else the candid and generous men whom nature has framed with such excellency of mind as to know how to be grateful, are very few, scarce so many as the gates of Thebes, or mouths of wealthy Nile. Yet, notwithstanding, I endeavour all I can, and will do so, to learn and promote the method of curing diseases, and to instruct those who are less conversant in practice than myself, if any such there be. Let other people think of me what they please. For having nicely weighed whether it is better to be beneficent to men or to be praised by them, I find the first preponderates and most conduces to peace of mind. As for fame and popular applause, they are lighter than a

feather or a bubble, and more vain than the shadow of a dream. But if any think that riches got by such a reputation, has in it somewhat more of solidity, let them enjoy what they have scraped together with all my heart, but let them remember that many mechanics of the most sordid trades get and leave more to their children." We know that Sydenham read Boethius—and what man is he, great or small, who doth not seek the consolations of philosophy? "For I turned, and saw under the sun, that the race is not to the swift, nor the battle to the strong, nor bread to the wise, nor riches to men of understanding, nor favour to men of skill; but time and chance overtake them all."

After Sydenham's death his improved method of treatment was widely adopted, and we may believe that the ravages of small-pox were somewhat stayed thereby. Yet a few years more, and another means of dealing with the disease was introduced; I refer to inoculation, which was first performed in England at the desire of the famous Lady Wortley Montague, in 1721. Her only brother, Lord Kingston, when under age, but already a husband and a father, had been carried off by small-pox, and she herself had suffered severely from it; though it had not left any marks upon her face, it had destroyed her fine eyelashes, and had given to her eyes a fierce look which impaired their beauty.

I shall say nothing more about inoculation, excepting this, that it seems to have been a success or not a success according to the point of view from which we regard it. So far as the inoculated persons were concerned, the mortality from small-pox was much diminished; few inoculated patients died. But so far as the whole nation was concerned, the mortality from small-pox was much increased. "The infection spread more widely; many persons were obstinately prejudiced against inoculation; many were altogether wanting in foresight, and neglected to avail themselves of its advantages; and many could not afford the time and expense incident to it. From these causes a large number of unprotected persons continued to exist, and the small-pox spread more widely than before, inasmuch as inoculation established so many new centres of infection." In short, there seems to be no doubt that the risk, to those unprotected, of infection by small-pox was greater than before.

I come now to vaccination. Jenner tells us that he had heard that "when the Duchess of Cleveland (he means King Charles the Second's Duchess) was taunted by her companions that she might soon have to deplore the loss of that beauty which was then her boast, the small-pox at that time raging in London, she made a reply to this effect,—that she had no fear about the matter, for she had had a disorder which would prevent her from ever catching the small-pox." This certainly seems to be an allusion to cow-pox. Early in the last century the milkmaids of some of the south-western counties knew that cow-pox prevented small-pox.

About the year 1745 this fact became known to a boy named Benjamin Jesty. Thirty years later, in 1774, he inoculated his wife and two sons (aged three years and two years) with the cow-pox, or, in other words, he vaccinated them from the cow, in order to "counteract the small-pox at that time prevalent where he resided." But behold the fate of a reformer! After Jesty's vaccinations, "his friends and neighbours, who hitherto had looked up to him with respect on account of his superior intelligence and honourable character, began to regard him as an inhuman brute, who could dare to practise experiments upon his family, the sequel of which would be their metamorphosis into horned beasts. Consequently the worthy farmer was hooted at, reviled, and pelted whenever he attended the markets in his neighbourhood. He remained, however, undaunted, and never failed from this cause to attend to his duties."

In 1805 he and his family came from Downshay, in the Isle of Purbeck, up to London on a visit. Jesty's portrait was painted, and one of his sons, whom he had vaccinated thirty years before, "very willingly submitted publicly to inoculation for the small-pox in the most vigorous manner, and Mr. Jesty also was subjected to the trial of inoculation for the cow-pox after the most efficacious mode, without either of them being infected." The portrait represents "a good specimen of the fine old English yeoman [a race which is now well-nigh extinct, alas!] dressed in knee breeches, extensive double-breasted waistcoat, and no small amount of broadcloth. He is represented sitting in an easy chair, under the shelter of a widespreading tree, with his stick and broad-brimmed hat in his left hand. His ample frame is surmounted by a remarkably good head, with a countenance which at once betokens firmness and superior intelligence." Upon his tomb in the churchyard at Worth Maltravers in Purbeck, in Dorset, is this epitaph:—"Sacred to the memory of Benjamin Jesty, who departed this life on the 16th April, 1816, aged seventy-nine years. He was born at Yetminster, in this county, and was an upright honest man, particularly noted for having been the first person known that introduced the cow-pox by inoculation, and who, from his great strength of mind, made the experiment from the cow on his wife and two sons in the year 1774." It is a notable fact that a circle with a radius of five miles can be drawn upon the map of Dorset so as to include Wingford Eagle—the birthplace of Thomas Sydenham; Rampisham the birthplace of Francis Glisson; and Yetminster—the birthplace of Benjamin Jesty.

I come now to Edward Jenner. He was born at Berkeley, in Gloucestershire, in 1749. When he was twenty years old, in 1769, "he was pursuing his professional education in the house of his master at Chipping Sodbury, in the same county, when a young woman came to seek advice; the subject of small-pox being mentioned in her

presence, she immediately observed, 'I cannot take that disease, for I have had cow-pox.'" From this time forth his mind never ceased to reflect upon the milkmaid's observation. "To everything there is a season, and a time to every purpose under heaven." It is clear that the fulness of time for the disclosure of vaccination had come, and the man for the purpose was ready. Men famous for one great discovery often have their attention drawn thereto in youth, and the rest of their life is wholly devoted to the development of their one idea. Jenner was essentially a man of one idea. For thirty years he was collecting facts and knowledge relative to cow-pox, and his book, which was published when he was nearly fifty years old, represents the final stage of his discovery, beyond which he never advanced—his book exhausted him. During those thirty years he studied the natural history of cow-pox, its relation to that disease which in horses is called the grease, the different eruptions on the teats of cows which are communicable to the hands of milkmaids, the distinction of that kind of eruption which is protective against small-pox (that which he called the true cow-pox), and lastly the possibility of intentional vaccination as a prophylactic. Jenner's procedure seems to have been very slow, and he did not keep what was passing through his mind a secret. When he came up to London at the age of twenty-one, he tried to draw John Hunter's attention to the subject. After Jenner had settled in practice at Berkeley, he talked so much about cow-pox in the medical societies of the neighbourhood, and seemed so little able to talk about anything else, that he came to be looked upon as a well-meaning bore. "Then said I, wisdom is better than strength; nevertheless, the poor man's wisdom is despised and his words are not heard." Jenner's main merit was that he believed in himself and in vaccination. The cow-herds and milkmaids of Wessex discovered that cow-pox prevented small-pox, Jesty practised vaccination, but Jenner was full of the enthusiasm of a man who believes that he has made a great discovery; he saw the immense power latent in vaccination, and he did not rest until he had made other men see it too.

What I have called Jenner's book was published in June, 1798; his subsequent writings did but re-affirm and illustrate the doctrines of his first book. To the chief doctrine, namely, that cow-pox is preventive of small-pox, he added two propositions (which he himself calls conjectures), namely, that cow-pox is derived from a disease of horses named grease; and that cow-pox, grease, and small-pox are three different forms of what is essentially one and the same morbid poison. From the time when Jenner first propounded these theses up to the present day, they have not ceased to meet with strong opposition. It is no intention of mine to enter the fray, which has been carried on with more heat and less temper than might have been desired. Arguments have done their best, we have had

enough of them, and the disputed questions are not yet settled. What we want are more facts, and, in particular, I think we want what Bacon calls instances of alliance. Judge of what would be the result, were such an instance to be discovered in the form of a microbe, an *ens variolarum*, which we could use as a touchstone of what is small-pox and what is not. Jenner's conjectures would disappear, they would be either truths or not. Meanwhile, we cannot get beyond opinions.

Jenner possessed the first and most necessary of virtues, namely, courage. He never shrank from avowing his opinions. The name which appears on the title-page of the book, "Variolæ Vaccinæ," indicates as clearly as possible his belief that cow-pox is simply small-pox occurring in the cow. And although he did not invent the term variolæ equinæ, or horse small-pox, he could not have declared his opinions in this respect more strongly than he did when he went into some stables with his nephew, George Jenner, and, pointing to a horse with diseased heels, said, "There is the source of small-pox." Mark, not merely "There is small-pox," but "There is the source of small-pox." Indeed, he says much the same thing in the earliest pages of his book. Jenner's opinions concerning horse-pox are by no means to be lightly set aside, and they seem to have become stronger as he became older. In his book he doubts whether the virus of grease, directly inoculated into man, can be relied upon as a preventive of small-pox. But his friend Baron, who knew him in after life, tells us that "Dr. Jenner was in the practice of using equine matter [for inoculation] with complete success," and that grease "when communicated to man is capable of affording protection against small-pox, even though it had never passed through the cow." Here is a drawing which shows the kind of eruption which grease produces in man, and you will observe its close resemblance to cow-pox. The drawing was taken from a patient of Mr. Langton's, from a groom, who, seven days before admission to the hospital, had charge of a horse suffering from inflammation of the legs and cracked heels, from which there was no discharge, but only a foul smell.

I will conclude this topic by quoting a paragraph from the *Traité de Médecine* of Charcot and Bouchard, published in 1892, and I choose a foreign book in order that you may know what they think about these matters abroad. "Horse-pox (Jenner's grease) in spite of the descriptions of Loy and Sacco, was for a long time confounded with other diseases of horses' feet, but the researches of Lafosse and Bouley have determined exactly the symptoms of grease. It is characterised by an eruption which may appear on any part of the body, and is often confined to a limited space, such as the lower part of the legs, around the nostrils and lips, within the nasal fosse or the mouth. The eruption consists of vesicles which attain maturity on the eighth or ninth day. Inocu-

lation of cows with the exudation causes cow-pox. Inoculation of infants causes well-marked vaccinia, but with very violent inflammation. Conversely, cow-pox or humanised vaccine, inoculated into the horse produces horse pox."

From the time of the first publication of Jenner's book, vaccination has been a field of strife. What was his attitude with respect to this wordy war? Baron tells us that "although Dr. Jenner was the object of many harsh and unfounded assertions, he never thought it necessary to weaken that strong position which truth and knowledge had enabled him to take, by replying to them." We may say that he had learned, with the young man in Esdras, that great is the truth and stronger than all things. That aspect of the Eternal Divine Being, which we call the truth, will manifest itself at the time appointed, whether we, puny phantoms of an hour, will hear or whether we forbear. And, as to calumny, Jenner would have agreed with Ben Sirach, that "if thou blow a spark it will burn, and if thou spit upon it, it shall be quenched."

When Jenner had become famous, some friends, more sanguine than sagacious, suggested that he should set up as a physician in London; and one admirer went so far as to hold out the prospect of making thereby ten thousand pounds a year. Jenner came to London, took a house in Mayfair, stayed in it for a year, found that his receipts did not cover his expenses, and went back to Berkeley. There he spent the greater part of his remaining life, and there he died, like the stag, where he was first roused. Surely if his friends had reflected upon the usual course of events in this world, and upon Jenner's character in particular, they would not have given that advice. He was now past fifty years old, and at that age you cannot transplant a man any more than a tree, least of all from the country to the town, and Jenner's whole life had been passed in the country. His character was unfitted for London. He was, as we have seen, a man strong and of good courage, but he was also honest and true. Moreover, we are told by his friend Baron that his nature was mild, unobtrusive, and unambitious. Jenner's own words imply as much. In a passage, which has been often quoted, from a letter to a friend, he says, "Shall I, who even in the morning of my days sought the lowly and sequestered paths of life, the valley and not the mountain, shall I, now my evening is fast approaching, hold myself up as an object for fortune and for fame? Admitting it as a certainty that I obtain both, what stock should I add to my little fund of happiness? My fortune, with what flows in from my profession, is sufficient to gratify my wishes." The same disposition animates an equally well-known piece of autobiography, which even those to whom it is familiar will like to hear again. He says, "While the vaccine discovery was progressing, the joy I felt at the prospect before me of being the instrument destined to take away from the world one of its greatest calamities, blended with the fond hope of

enjoying independence and domestic peace and happiness were often so excessive that, in pursuing my favourite subject among the meadows, I have sometimes found myself in a kind of reverie. It is pleasant to me to recollect that those reflections always ended in devout acknowledgments to that Being from whom this and all other blessings flow."

I will now conclude by asking you to call to mind the old fable of Apollo and Python. The serpent Python signifies pestilence, engendered in the mud and filth of the world. Python pursues Latona, daughter of an earth-born Titan, until her son Apollo appears upon the scene. And what says Apollo of himself?

"Medicine is mine: what herbs and simples grow
In fields and forests, all their powers I know,
And am the Great Physician called below."

Apollo shoot out his arrows and destroys Python.

Medicine has slain many pestilences which once defiled this fair land of ours: leprosy, ague, plague, dysentery, cholera, typhus and small-pox. But the race of Python is not yet extinct: yours is the work of carrying on the conflict between medicine and disease.

On Psychological Time.

By T. CLAVE SHAW, M.D., F.R.C.P.



WHAT is "Time"? To many it is an entity, an actual thing. The man who says "give me more time," "how quickly the time goes!" "how much of my time are you going to take?" &c., expresses the common idea that "time" is something that can be saved, or wasted, or cut with sections, or dealt with generally, like a block of wood. Allied to time is space—indeed, the one is usually expressed in terms of the other. "How far is it from here to Zermatt?" says the weary trudgee to the peasant on the road. "Two hours," says the latter; and so the former concludes that he has about six miles to go; or, in other words, the space is measured by time. "How long will it be, doctor, before I am well?" says the patient; and when he is told that "three days must elapse," he ought to see that the answer to his question of time is given in terms of space, or in the uniformly repeated changes in external nature. Time can only be viewed as the consciousness of change, so that where there is no consciousness there can be no idea of time; and again, where there is no change there can be no idea of time. As to the degree of change that is required to constitute time, it varies with the individual. When I think of what I did in a certain "time" yesterday, I have before me a succession of events of various degrees of consciousness; and if I want to represent these to myself at some future time, or to others, I must have some scale of measurement, possibly

an arbitrary one at first, but subordinated subsequently to the common rule. The most prominent of these events will be the beginning and the end of the series, and between these two points will be others separated by more or less rhythmical periods. The most constantly regular movements appear to be those of the universe, and the interval between the rising of the sun from day to day, forming a convenient standard, is arbitrarily divided into so many hours, and these ultimately into so many seconds, each division of time thus recorded corresponding with a certain movement in space of the sphere. Our "time," then, or the succession of events, is now made manifest by the rhythmical beating of a pendulum causing the hands of a clock to move over a certain amount of space. But this is not psychological time. With a chronoscope it is possible to calculate the $\frac{1}{1000000}$ of a second, and we can imagine this carried to a mathematical abstraction, each instant being exactly like the other, unlimited; but Psychological Time is unequal, we pause at different points, and taking a stand there we look backwards or forwards, the standing point being chosen by the interest or number of the facts experienced. There is an expression much in vogue—"a Psychological Moment"—the meaning of which is worth a passing attention. A person who is suddenly placed in an arduous position, or is in a critical situation, is said to have a "psychological moment." The time passed between the reassembling of the jury and the delivery of the verdict is to the prisoner a "psychological moment." It may seem to him to be years, so rapid is the succession of events in his mind; or he may have no idea of time at all, so concentrated is his attention upon one idea. As regards "time," therefore, a "psychological moment" has, strictly speaking, nothing to do; it means simply a highly strung state of feeling, in which the consciousness of space travelled is obliterated. Time, ages, eternity, are abstractions; they have had no conceivable beginning, and have no conceivable ending. We must (Höfliching) conceive them as "a straight line indefinitely extended in either direction." But, like all abstractions, we endeavour to embody the ideal, and time is represented as an old man with a scythe, and wings to show that events pass rapidly, and that matter is not unchangeable.

When the question of "feeling" comes in, how different is the case! In his interesting article "Consciousness," in Luke's Dictionary, Dr. Merriam calls attention to the difference between states and changes of consciousness, the difference being one of duration only, and whilst the former have an appreciable duration, the latter have none appreciable; but these states and changes are both "feelings," and the fact to be kept in mind is that whilst mental states (e.g. the concept of a city) have a considerable duration, and mental changes (e.g. the change in passing from the concept of a city to that of a war-ship) a very short one, the important element that gives the idea of time to the

observer is the change from one state to another state. If, then, the change from one mental state to another is very rapid, and the changes are numerous, a very long period may seem to have elapsed, because it appears impossible that so many events (judging from previous experiences) could have occurred in such quick succession "in the time;" and, on the other hand, a long-continued mental state may carry with it no idea whatever of time, because there is no change of consciousness which serves to mark it.

But what, after all, is the use of thinking of time as a never-commencing and never-ending line? To mankind at large it is a very real thing. To some it is an affair of viscera. Breakfast-time, dinner-time, tea-time, and bed-time constitute the diurnal temporal menu. To an animal the clock is in the stomach; when it is hungry it is time to work and get a living, when it has fed it is time to rest, to enjoy it. The busy man finds time "hang on his hands," for the state of mind without change of state carries with it no element of feeling so satisfactory as to make its prolongation desirable. The busy man finds time all too short, and the feelings of the rush of changing states are to him unsatisfactory from their rapidity and intensity. The end desired is the common criterion of time, and the feeling mixed up with it is the determinant of the rate of speed with which events pass, *i.e.* of the rate at which time goes. The feeling of remote death is a scarcely perceptible one, that of immediate death is painful; in the former case there are so many events to occupy the attention that the mental content of the moment is satisfied; only when there are no more events, and the next one is the grand climax itself, does the feeling become paramount. Time is, then, a matter of feeling. How differently must a lifetime seem to different men! To one it is a long, unemotional, unvaried sameness; to another it is gone like a flash,—brilliant, intense, restless. Could the one live his life again in that of the other, he would not understand that the times were the same. What would be the thirty years of a Napoleon to the thirty years of a simple shepherd? Truly the months spent at St. Helena must have been the embodiment of time long drawn out.

As regards "space," there is as much uncertainty about it as there is about "time," some maintaining that our knowledge of it is intuitive, others that it is an acquired faculty based upon inheritance. We are as incapable of imagining the beginning and ending of space as we are of time, and if we are to form any idea about either we must do it under limitations. Since we measure one by the other, ideas about them ought to be interchangeable; there is, in fact, no reason why the answer to the question "What time is it?" should not be "twelve thousand miles," meaning that it is twelve o'clock; or we might represent to ourselves the relationship between space and time by saying that space is what things move in, and time is what events happen in.

In writing lunacy certificates, or describing insane states, the condition of the patient's ideas as to time and space is frequently referred to, and a very good unit of sanity it is to draw attention to, because it is the index of the state of consciousness. In acute insanity, especially of the maniacal character with much incoherence, lessened inhibition, and a more decided reflex condition of brain action, the patient often says that he remembers nothing, has no idea how long he has been ill, nor where he has been. There was practically no true consciousness in the acts and sayings, and therefore the difference between mental states which is the basis of time could not be appreciated. It would be just as reasonable to expect knowledge of time in such a person as it would in any ordinary reflex act. Nothing points so clearly to the reduced nature of the maniacal condition as does the defect in time-knowledge. Alterations in time-rate are in some forms of insanity coincident with space misapprehensions, as in the general paralytic who could run three times round the world in the thousandth part of a second. But while to some time is apparently shortened, to others it is lengthened, as in a patient here who suffered from a long attack of melancholia, in which for weeks he never spoke. On his recovery he said that he had been possessed by one idea, and that the time of his illness seemed to him to have been years. "Well," said the writer to a very maniacal and deluded woman, "how old are you?" "Hundreds of years," said she, "and this place belongs to me." "How long have you been the possessor of this place?" "Centuries," said the woman. It is of little use to argue with Methuselahs of that description. It is probable that true consciousness, memory for recent events, and power of attention, are only compatible with soundness of the highest developed "platform," the last product in the evolution of the mental state of the individual; and inasmuch as our ideas of time depend upon the power of fixing points in the train of thought, in other words of exercising inhibition whenever we wish, all conditions where inhibition is imperfect or impossible show to a greater or less extent difficulty in the appreciation of time, to a small degree in melancholia, to a greater degree in mania, greatest of all in stupor. An imbecile patient used to say that she was "40 years old, and 26 years of age;" the former was correct, the latter may have been what she wished she was, though one feels more inclined to attribute the difference to confusion of idea than to the untruthfulness of an innate vanity. What a blessed thing it is that in the majority of insane states the outrageous ideas, the cruel and filthy language, the obscene acts, the absurdities and devilries, form an alien group which on recovery is completely ignored, shelled out like an obnoxious growth, leaving a vacuum in the time and space of a life, which is gradually obliterated by the contraction over it of the happier events of the earlier life fused with those of the recuperated mind! Did you ever lose your

watch and have to be dependent for your time on the consciousness of passing events and the memory of their position on the "line," *i. e.* the order of their occurrence? At first the loss is felt to be inconvenient, but one soon becomes accustomed to paying attention to occurrences and to local measurements hitherto neglected; in fact, the faculty of determining time becomes very accurate, and it can be trained to the discrimination of quite small periods. There is no doubt of this power in animals. The invention of watches seems to have been as great a saving as that of writing was for the memory. Instead of having to recall what we have done, or of looking around for changes in space of moving objects, we simply look at the watch and save ourselves a large amount of trouble and repetition.

To tell the time without a watch requires a comparatively perfect brain action; a chronometer in the hands of a lunatic may do much to conceal his real impairment.

When intellect proper is reduced to its lowest ebb, as in the degraded idiot and imbecile, the bodily functions in their regularity are themselves time-measurers as accurate as any klepsydra, hour-glass, or pendulum; but though the periodic times may be as regular as the ebb and flow, there is no more idea of time than there is in the sea itself. Day and night to the idiot mean nothing more than a change in sensation, and there is probably no more idea of time proper than there is in a cephalopod mollusc. Philosophers have been much exercised as to which of the two comes first in the order of development—the idea of space or that of time. The necessity to the existence of the body of the organic functions of nutrition leads us to think that the idea of time is earliest developed, and that space very soon follows it. When people are on the look-out for signs of insanity, they do not, as a rule, seem contented unless they can evoke some glaring delusion or hallucination. Important as these are, they are not always to be found at an early period, whilst it is in my experience very common for an insane person in an early stage to have lost his due appreciation for time, for the relationship of things as they are, judged by the standard that the particular individual has been in the habit of measuring them by. In the hope of calling attention to this important factor in diagnosis I have ventured the above remarks.

Post-Graduate Course in Clinical Bacteriology.

DR. KANTHACK will begin his course on September 7th, at 2 p.m. The class will meet on Mondays, Tuesdays, Thursdays, and Fridays, at 2 p.m., and the course will be continued until September 25th. On each afternoon there will be a short lecture with lantern demonstration, followed by practical work in the Pathological Laboratory. Gentlemen desirous of attending the course are reminded to communicate with Dr. Kanthack as soon as possible, so that the necessary arrangements may be made.

Fee (including use of microscopes and material) £3 3s.

Bad Kissingen.

By OUR OWN CORRESPONDENT.



ACTING upon your instructions, I booked through to Kissingen. The journey was quite devoid of interest. On the boat from Dover to Ostend they had an ingenious plan to prevent passengers stealing the soap. A bit of this commodity is put into a kind of coffee-mill, and the traveller grinds out as much as he thinks he wants. The *train de luxe* soon ran us to Frankfort, where a passenger was reproved for undressing before an open window. The official said it "Vood be nicer" if he shut the "vindur." Bad Kissingen is reached about half-past nine in the morning, about twenty-four hours after leaving Charing Cross. The journey is an easy one, and may be undertaken by anyone who has not got beyond the *Hst. Gent. & Rheo* stage. I went to the Hôtel de Russie, which is very comfortable, and, you will be glad to hear, reasonable in its charges; especially when we remember that the season only lasts from the beginning of May until the end of September. All the rest of the year the house is shut up, and under the charge of caretakers. The first day is spent in looking around and seeing the doctor. The look around is soon done; Kissingen is quite a small place, about as big as the village of Hatfield, so that one can soon exhaust all that can be seen in the town. It lies in the valley of the Saale, which is a sluggish, turbid brook, in which a trout is said to have been caught. In the town, where it runs amidst the buildings, it rather reminds one of the backs at Cambridge. But, Mr. Editor, your readers have guide-books, so let them read the usual descriptions of the town pump, church clock, cemetery, and local magnate, for themselves—you sent me on a scientific mission. People do not go to Kissingen to study architecture, but for "the cure." Our hotel waiter gave us the first information as to the cure. He said, "You get oop at sex, trink tree glasses of the vorters, af ein bad, af your dinner, go to schleep, listen to the band, ave more of zic vorters, ave supper, and go to bed." We told him we were going to consult a doctor; he seemed hurt, and said, "Vell, he will tell you no more." He was quite right. I sent your editorial card and my own up to one of the most learned and distinguished physicians in Kissingen. He was fully occupied when I called at 3 p.m., inasmuch as 3 p.m. to 6 p.m. are the ordinary hours for consultation at the doctor's own home. For us, of course, the manner of the consultation and the surroundings of the great man, and his way of doing things, have a peculiar interest. Downstairs we rang a bell; a door opened in a mysterious way; we groped our way upstairs to an ante-room, where several people sat waiting to hear their fate. The room was bare, and did not convey that air of affluence which the waiting room of even a sucking physician does in London. A few guide-books, a few photos, and a cabinet with odds and ends such as one sees in

Lowther Arcade, and which were evidently presents from grateful patients, adorned the room, and protected us against *ennui*. A door opened, and an old gentleman with long white hair and a long white beard beckoned me into another apartment. An enormous ring upon his left forefinger, and other articles of jewellery, showed that after all things did not go so badly at Kissingen. The waiter was right. I need not repeat. The doctor preached abstinence from wine, and like a good preceptor told us what he practised himself; quoth he, "Ven I do take a bottle of vine, I do haf a veek with him." Just think of struggling a week with a bottle of wine which tastes as if it had mistaken its vocation, and slipped out of the cruet-stand. I now know, sir, why vinegar is called vinegar. Have not "*vin*" and "*aigre*" got something to do with it? I was to drink three glasses of Rakoczy every morning, and have a Soole bath each day. They are very proud of Rakoczy, as they call their principal spring, and they often call it "our beautiful Rakoczy." It is the strongest of the drinking waters. It tastes like salt and water with a dash of ink. A quantity of carbonic acid gas gives it a slight sparkle, and is soothing to the "inside." Rakoczy is in the centre of the little town, and about a couple of hundred yards from all the chief hotels. Close to it is Pandur, an almost identical spring, and not far off Maxbrunnen, a much milder water, rather like our table waters. The Soole, or brine water, springs up about a mile from Kissingen, in the valley. It is like sea water with a quantity of carbonic acid gas in it.

An ordinary day's work at Kissingen is as follows: The band begins to play in the gardens around the springs at 6 a.m., and goes on until 8 a.m. The music is excellent, and some must find it most soothing to swallow their water to the inspiring strains of the trombone. The attendants, who are most polite and good-natured men, fetch the water in tumblers in batches of a dozen at a time. It is rather amusing to see the men and women scramble for them. The latter have not a very good chance, as the men, although always bowing and scraping, are not above grabbing the glass which the lady has almost taken into her hand. Near by are large shallow tanks with hot water, so that the water can be slightly warmed, and some of the carbonic acid gas driven off. After having drunk a tumblerful of water, a quarter of an hour's gentle walk is taken, then another glass and another walk, and so on. A real champion gets up before six and does his six or seven glasses before breakfast. That meal is taken half an hour after the last glass, and consists of cure bread and coffee. Some add fish or eggs and bacon and such like, but butter and fat are "taboo." After breakfast a rest, and then the Soole bath. This is really delightful. A huge wooden bath is filled with the brine water and heated to about 95° F. by a steam coil which is fixed round the bottom of the bath. When the steam is set agoing the water boils with the liberated gas; also, all the surface of the body becomes covered with

bubbles of it, and this, together with the salt, produces a most delightful and invigorating effect. After twenty minutes in the bath the surface of the body is quite red and glowing, and in a condition of "goose-skin." The water at the baths outside the town, where the spring arises, is much fresher and more full of gas than that which has been pumped to the town; therefore the knowing ones, or those who are not too fat or lazy to walk, betake themselves off to the fountain head. Of course, the Soole water is used in all kinds of ways, but I have told you the usual one. The bath is followed by a mid day dinner. This is rather trying at first, but there is no doubt it suits the treatment to dine early. At night, a very simple supper, consisting of a basin of barley soup and a little plain meat and vegetables, is taken. Some hardy people have another dose of Rakoczy water betwixt five and seven, when the band plays again. This course is usually continued for three weeks—your correspondent will be cured in a fortnight. Now for the effects of this treatment: the shop windows afford a rather good idea; they contain plaster figures, one of which represents an enormously fat and bloated man with a gigantic paunch, and the other the same become slim and genteel, and gazing blissfully into a vacancy in his nether garments. This thinning is not brought about by aperient action, for that is slight. But evidently most active tissue changes are produced, and doubtless the diet has a salutary effect. It is rather odd to find that during the first few days all the muscles and fasciæ become tender, and that muscular rheumatism is the order of the day; but this is followed by an improved appetite and a delightful feeling of returning vigour and health. At first, too, every one becomes very pale, with sunken and watery eyes, but this likewise departs. I have been much struck to see youths with most severe acne of the face get quite well in a week or ten days. The cramps and pains of gout likewise depart. The *acutias* do not seem to do so well, or may even be made worse owing to the salt in the Soole bath. The patients, however, feel so much benefit that they seem always to continue their course. When it is over many take themselves off to the Black Forest for an after cure. I ought to add that Kissingen is a splendid place for the cure of indigestion.

The people who come for the cure are a most cosmopolitan brigade—not many English, vast numbers of very stout German men and women, Russians, and numbers of Jews. In the morning a royal prince, a princess, a fat German, a Jew, and a foreign correspondent may be seen promenading side by side. For those who come to lend moral support and to cheer up the water drinkers, Kissingen affords a fair amount of amusement. The country around is full of forests, and the roads are good. Massive castles are studded upon every height, and at each there is an inn where very nice coffee can be drunk. There is also a bicycle school where lessons can be taken and machines

hired. Having taken lessons I propose to ask you on my return to try and get me the state bed in one of the wards, with a screen, and special diet, so as to recover from my bruises and wounds. In the Saale the enthusiast can fish. A hero caught a little fish the other day, much to the joy of a crowd of small boys. But, as you may have inferred, the cure is all in all.

Notes.

THE UNIVERSITY OF LONDON COMMISSION BILL, which was introduced into the House of Lords by the Duke of Devonshire last month, contains provisions which embody every one of the points desired by those who are advocating the reform of the University on the lines of the Cowper Commission. This is so far satisfactory, and we note with pleasure that the Bill has already reached a third reading in the House of Lords. We understand, however, that there is a grave difference of opinion on the subject of the relations of King's College to the University, which, unless it can be amicably settled within the next few days, will prove fatal to the passing of the Bill this session. We fear that in any case it could not pass the House of Commons before the rising of Parliament. It is monstrous that the requirements of London in the matter of University education and development should be thus shelved from session to session.

MR. H. T. BUTLIN, who has held the office of Treasurer of the British Medical Association for six years, has now retired from this position, and in retiring from office he informed the British Medical Association that in 1889 their income was £30,000, the expenditure £26,660, and the invested funds £20,000. Now the income is £38,300, the expenditure £34,860, and the invested funds £45,000. This is a good record.

SIR DYCE DUCKWORTH'S Address on Medicine to the British Medical Association at Carlisle was exceedingly well received, and voted on all sides to have been excellent. His subject was a well-chosen one, and he dealt with it in his well-known comprehensive and masterly style.

DR. GEE and Dr. Norman Moore have been appointed members of the Library Committee of the Royal College of Physicians, and Dr. Moore has been elected one of the Curators of the Museum of the College.

SIR DYCE DUCKWORTH has been re-elected Treasurer of the Royal College of Physicians.

DR. VINCENT HARRIS has been re-elected an Examiner in Physiology for the Second Conjoint Examination.

DR. LEWIS JONES has been re-elected Examiner in Elementary Physiology for the First Conjoint under the four years' regulations.

DR. W. S. A. GRIFFITH has been elected Examiner in Midwifery and Diseases of Women for the final L.R.C.P. and M.R.C.S.

MR. J. LANGTON has been elected Examiner in Surgery by the Royal College of Physicians.

MR. H. J. WALTON, who passed first into the Indian Medical Service in February, has maintained his position at Netley, being head of the list with 597 marks. He gained also the Martin Memorial Medal and the first Montefiore Prize of 20 guineas.

MR. J. S. STEVENSON is fifth with 4940 marks, Mr. G. A. Smith sixth with 4915 marks, and Mr. W. G. Richards is eleventh with 4435 marks.

MR. A. H. MORRIS is third on the list of the Army Medical Staff at Netley with 4372 marks, and Mr. M. Swabey is eighth with 3873 marks.

WE NOTICE the promotion of Surgeon-Major Thomas, M.D., of the 4th Volunteer Battalion of the Devonshire Regiment, to be Brigade-Surgeon Lieutenant-Colonel. Dr. Thomas is a first-class rifle shot, and has often figured successfully in the Bisley lists.

THE RESULT of the Examination for the Junior Scholarship in Chemistry, Physics, and Histology, is (1) J. S. Williamson, (2) E. G. Smith.

THE GOLD MEDAL of the British Medical Association has been awarded to Surgeon-Captain Whitechurch for his distinguished gallantry in the performance of his duty. The motion was proposed by Dr. Saundby and seconded by Sir Willoughby Wade.

Amalgamated Clubs.

LAWN TENNIS CLUB.

THE Tennis Club brought their season to a close on Saturday, July 18th, with a very creditable win over Surbiton, on their own ground. The club has had a very fairly successful season, having played 22 matches, out of which they won 14 and lost 8. The results would undoubtedly have been better if we could have played full strength more often. Only in two matches did we play our full team. It is to be hoped that next season the men will play more regularly. The following matches have been played since the last issue of the JOURNAL.

St. Bart's v. Winchmore Hill.—This return match was played at Winchmore Hill (opponents' ground) on Tuesday, July 7th, and was won by the Hospital by 8 matches to 4. R. F. Baird and C. H. Barnes won 2 matches and lost 1; R. Waterhouse and W. H. Crossley won 2 and lost 1; S. Hey and T. L. Wyndham won 1 and lost 2.

St. Bart's v. Putney.—Played at Putney on Wednesday, July 8th. The Hospital had a very weak team, whilst Putney were very strongly represented. The result was a win for the latter by 5 matches

to 1. R. F. Baird and J. K. N. Marsh were the only pair to win a match.

St. Bart's v. Forest Gate.—Played at Winchmore Hill on Wednesday, July 15th. Forest Gate won by 5 matches to 2. W. H. Crossley and R. Waterhouse were in good form, and won both their matches.

St. Bart's v. Surbiton.—This return match was played at Surbiton on Saturday, July 18th, and was won by the Hospital by 6 matches to 3. This result was very creditable, as Surbiton put a very strong team in the field. R. F. Baird and H. W. Shewell were in very fine form for us, and won all 3 of their matches. S. Bousfield and F. E. Price won 2 and lost 1; W. H. Crossley and R. Waterhouse won 1 and lost 2.

United Hospitals' Athletic Club v. London Athletic Club.

THE above clubs met at Stamford Bridge Ground on July 15th. After an interesting contest the United Hospitals won by 6½ events to 4½. On the previous occasion when these clubs met the London Athletic Club proved victorious.

Considering the general excellence of the competitors—three present and three past amateur champions turning out—it was rather disappointing to find only about twenty spectators. The weather afforded no excuse, being all that could be desired. It had been proposed to hold a United Hospitals' Athletic Club Dinner after the meeting, but a sufficient number of names were not obtained, and this may have been partly due to the lateness in the session; but next year we hope it will be held after the United Hospitals' Sports, and that it will receive the support of all our men interested in athletics. Details:

HALF-MILE.—A. G. Butler (St. Mary's), 1; W. A. de C. King (L.A.C.), 2; W. Paul-Jones (St. George's), 3. Time, 1 min. 59½ secs. Paul-Jones led for the first lap, Butler second, and King third; in the second lap Butler took the lead, and led King by four yards into the straight; this the amateur champion could not make up, and thus Butler revenged his defeat in the Championships.

100 YARDS.—H. C. Woodyatt (University College Hospital), 1; A. Ovenden (L.A.C.), 2; F. Sims (Guy's), 3; F. L. Stevenson (L.A.C.), 4. Time, 10½ secs. Ovenden made a great effort 40 yards from home, but made no impression on Woodyatt, who led all the way and won by a yard and a half; two yards between second and third.

LONG JUMP.—C. E. H. Leggatt (St. Mary's), 22 ft. 4½ in.; R. Williams (L.A.C.), 19 ft. 6 in.; B. C. Green (L.A.C.), 17 ft. 3 in.; W. F. Bennett (St. Bart's), 2; J. A. West (St. Bart's), 30 ft. 9 in.; 3. 220 YARDS.—H. C. Woodyatt (University), 1; A. Ovenden (L.A.C.), 2; F. Sims (Guy's), 3. Time, 22½ secs. Woodyatt led the whole way, and won by three yards and a half; one and a half yards between second and third.

ONE MILE.—F. J. Wilkins (L.A.C.), 1; R. C. Leaning (St. Mary's), 2; S. L. Sarel (L.A.C.), 3. Time, 4 mins. 52½ secs. Leaning led for two laps and a half at a slow pace, when he was passed by Wilkins; on entering the straight Leaning closed up, but Wilkins lasting the longer eventually won by three yards.

120 YARDS (HURDLES).—G. Shaw (L.A.C.), 1; F. H. Allfrey (Thomas's), 2. H. N. Coltart (George's) and R. Williams (L.A.C.) fell. Time, 16 secs. Won by six yards.

THROWING THE HAMMER.—G. S. Robertson (L.A.C.), 109 ft. 10 in.; W. Lawrence (L.A.C.), 101 ft. 8½ in.; 2; W. F. Bennett (St. Bart's), 101 ft. 2 in.; 3; C. I. Graham (Mary's), 94 ft., 4. Although beaten, Bennett is to be congratulated on his excellent throw.

HIGH JUMP.—C. E. H. Leggatt (St. Mary's), R. Williams (L.A.C.) (dead heat), 5 ft. 7½ in.; W. E. Lane (L.A.C.), 0; B. B. Hunt (L.A.C.), 0.

440 YARDS.—A. G. Butler (St. Mary's), 1; E. C. Bredin (L.A.C.), 2; F. S. Stevenson (L.A.C.), 0; J. D. Lloyd (L.A.C.), 0. In spite of his exertions in the half-mile earlier in the afternoon, Butler running in grand form beat Bredin by three yards. Time, 5½½ secs.

THREE MILES.—H. A. Munroe (Guy's), 0; W. F. Baker (Guy's), 0; A. Rye (L.A.C.), 0; S. L. Sarel (L.A.C.), 0. Munroe made the pace, and completed the first mile in 4 min. 46½ secs.; at the end of a mile and a half (7 min. 48½ secs.) he was the only runner on the track. Although told he might stop, preferred to run on to "see what he could do," it being his first performance this year. Time, two miles, 9 min. 55½ sec.; three miles, 15 min. 24½ sec.

Distribution of Prizes.

THURSDAY, July 18th, the Prizes, Scholarships, &c., won by students during the past sessional year were distributed in the Great Hall of the Hospital by Sir James Paget, Bart. The chair was officiously occupied by the Treasurer of the Hospital, Sir Trevor Lawrence, Bart., who, after making a few introductory remarks, called upon the Warden to present a report of the year's work. Dr. Shore then read the following report:

It is with much pleasure that I have now to present a most satisfactory Report of the past year's work. The position of the Medical School as the leading Metropolitan College of Medicine is still maintained. The number of students who began study in the School for the year 1895-96 was 187, of whom 105 entered to the full medical course, 62 joined for some special course of instruction, and 20 were students in the Preliminary Scientific Class. The total number of Students in attendance for the year has been 535.

The most important changes in the Hospital Staff during the year have been the appointment of Dr. Lander Brunton as fifth Physician, and the election of Dr. Herringham and Dr. Tooth as Assistant Physicians. It was decided in November to combine the offices of Medical Registrar and Demonstrator of Morbid Anatomy, and to appoint two gentlemen to the combined offices. Dr. Calvert and Dr. Garrod were so appointed in December last, and the new arrangement has been found to work smoothly and with advantage to all concerned. In the Teaching Staff of the School there have been several changes.—Mr. Willett, who has held the Joint Lectureship on Surgery for seven years, has resigned this office, much to the regret of his colleagues, and Mr. Butlin has been appointed Joint Lecturer with Mr. Marsh. With the permission of the Governors of the Hospital, Dr. Edkins has again given a course of Lectures on Chemical Physiology; and the Medical Officers and Lecturers are gratified at receiving permission for Dr. Chattaway to give a course of Lectures on Organic Chemistry during next year. Mr. C. B. Lockwood has been appointed Demonstrator of Practical Surgery and Mr. McAdam Eccles Demonstrator of Operative Surgery vice Mr. D'Arcy Power, whose term of office has expired. Mr. H. J. Waring has been reappointed Senior Demonstrator of Anatomy, Dr. Edkins Senior Demonstrator of Physiology, and Mr. W. E. Miles has been elected to the Anatomical Teaching Staff, as an Assistant Demonstrator.

The addition of a fifth Physician and the rearrangement of the beds, which took effect in October last, has enabled the Physicians to increase the number of appointments of In-patient Clinical Clerks available to the Students, so that now ample opportunities are afforded in all departments for clinical study and teaching.

It is with the greatest pleasure that the Medical Officers and Lecturers have heard of the recent decision of the Governors in regard to the question of board for the House Physicians and House Surgeons, and the decision has given rise to the liveliest satisfaction amongst the Students of the Hospital.

During the past year, the great value of the new Operating Theatre has been fully demonstrated, and the Governors are to be congratulated on this most valuable addition to the Hospital equipment.

The work done in the department of Pathology has been one of the most striking of all the advances made in Hospital work, and the direct value of pathological and bacteriological research in treatment of the Hospital patients has been fully and completely shown. During the year Dr. Kanthack has made no fewer than 801 examinations of pathological products from patients in the wards of the Hospital. He has been ably assisted by Mr. J. W. W. Stephens, the Treasurer's Research Student. Mr. Stephens has been engaged not only in assisting in the examination of pathological products from patients in the wards, but also in researches on the distribution and varieties of the Diphtheria bacillus, the pathogenic and chemical properties of the *Bacillus coli-commune*, the morphology of the tonsillar vibrios, and other minor subjects.

During the Summer session the Lecturer on Pathology, Dr. Kanthack, has with the consent of the Governors and of the Medical School Committee, acted as deputy to the Professor of Pathology at Cambridge.



"MORBUS CORDIS." AN INTERESTING CASE.

It is with great pleasure that I have to report that the Jacksonian Prize of the Royal College of Surgeons of England, given for an original Essay on some surgical subject, which has more frequently been gained by young surgeons from St. Bartholomew's, has this year again fallen to us. It has been awarded to Dr. Kanthack for his essay on "Tetanus."

In Examinations, the Students of the Hospital have fully maintained the reputation of the School. The Murchison Scholarship, given in alternate years to a student in London and a student in Edinburgh, for the best examination in Medicine, has been carried off by Mr. Sinclair Gillies. At the Royal College of Surgeons of England nine out of ten passed the Final Examination for the Fellowship in November, and six out of nine passed in May last, whilst nine have passed the First F.R.C.S. Examination. At the Examinations of the Conjoint Board, eighty-two have completed their final Examinations and have received their diplomas of L.R.C.P. and M.R.C.S. Corresponding numbers have passed various parts of the Intermediate Examination, and the successful candidates have averaged about 80 per cent. of those presenting themselves.

At the University of London ten have taken the degree of Doctor of Medicine, one of them, Dr. C. H. Roberts, securing the Gold Medal. It is gratifying to note that this medal has been won by St. Bartholomew's men three times in the last four years. Seventeen have taken the degree of M.B., six securing honours. Amongst the honours men, Mr. Sinclair Gillies is conspicuous as having taken first class honours in all the subjects and in having secured the Scholarship and Gold Medal in Obstetric Medicine, and the Gold Medal in Forensic Medicine. Mr. A. R. Cook also secured honours in all the subjects, and the other honours men were Mr. G. H. Sowerby, Mr. J. H. Rodman, Mr. H. J. Walton, and Mr. M. G. Pearson.

Six students have taken the degree of B.S.; one, Mr. J. S. Sloane gaining a first-class honours in Surgery. Fourteen have passed the Intermediate M.D., one, Mr. E. C. Morland, taking honours in all the subjects, and the Exhibition and Gold Medal in Physiology. Twenty-five have passed the Preliminary Scientific Examination. At the University of Cambridge, twenty-five have passed the first part (Surgery and Midwifery) of the Final M.B., and eleven have passed the second part (Med.), of the same examination; six have taken the Diploma of Public Health of Cambridge.

At the University of Oxford, one has taken the M.D. degree, three have been admitted as Bachelors of Medicine, and two have taken the Diploma of Public Health.

At the University of Durham, six have taken the degree of Doctor of Medicine.

In the competition for the Indian Medical Service, in August last, Mr. A. W. R. Cochrane was second, and after four months at Netley was head of the list in order of merit, and Mr. R. P. Wilson was fourth. In February last, Mr. H. J. Walton headed the list for the Indian Medical Service; Mr. F. A. Smith was fourth, Mr. J. S. Stevenson fifth, and Mr. W. G. Richards seventh in order of merit.

In the competition for the Army Medical Service, one was successful in August, and two were successful in February last; one, Mr. A. H. Morris, securing the second place in order of merit.

The new recreation ground at Winchmore Hill, which has now been open for about a year, has proved a great success in relation to the social and physical welfare of the students. The members of the Amalgamated Clubs now number over 600, so that practically all the students take a keen interest in this department of their Hospital life. In Inter-Hospital competitions the Association Football Club has again secured the Cup.

The students' "JOURNAL," under the able editorship of Dr. H. B. Meakin, has proved to be a great success. Its circulation now amounts to 1500 copies a month, and it forms one of the most valuable links between the past and present students, enabling "Bart's men" in all parts of the world to hear of the doings in the Hospital and School, and to keep in touch with their *Alma mater*.

In conclusion, I desire to thank the Treasurer of the Hospital and the Governors for the continued interest they take in the welfare of the School, and to assure them that it will always be the endeavour of the Medical and Surgical Staff and the Lecturers to maintain unimpaired the reputation of the School, and to make it worthy of our great and ancient Hospital.

The prizes were then distributed by Sir James Paget, the prize winners being presented in order, beginning with the Entrance Scholars in Science, and ending with the Lawrence Scholar and Gold Medallist. After the distribution, Sir James delivered a short address, congratulating the

scholars and prizemen upon their success, and expressing the hope that their several successes would prove to be the beginning only of prosperous careers in their profession and in after-life. He spoke of having himself been a prizewinner sixty-two years ago, and reviewed the value to him of the knowledge which he had acquired as a student. Of the actual facts he had learnt, few had proved to be of any direct value whatever; but of the educational importance of the study necessary to acquire and properly understand the facts he learnt, in training his mental powers, he spoke in the highest terms. He contrasted knowledge of sixty years ago with that of the present time, and particularly spoke of the vast improvements which during the past few years had been brought about in the School and Hospital. At the conclusion of the address a most hearty vote of thanks was given to Sir James Paget, on the motion of Dr. Norman Moore, seconded by Dr. Champneys. The meeting, which was voted on all sides a most successful gathering, concluded with a cordial vote of thanks to Sir Trevor for presiding, proposed by Dr. Church and seconded by Mr. Marsh. Afterwards many visitors were conducted over the Hospital and School buildings by the students.

The Bahere Lodge, No. 2546.

IHE Installation Meeting of this Lodge was held in the Great Hall on June 9th, in the presence of 110 members and visitors. Bro. Alfred Cooper was installed as the second Master, and the following officers were appointed: Bros. Clement Godson, Walsham, Burns, the Rev. Sir Borradaile Savory, Bart., Reece, D'Arcy Power, Gripper, Abraham, Holden, Swinford Edwards, Gilbertson, Lockwood, C. P. White, Ernest Clarke, and Madden. In the course of the evening Mr. W. H. Cross, Mr. Edgar Willett, Dr. Balfour Neill, Mr. Lance, and Mr. Newton were initiated into Masonry. A Past Master's jewel was presented to Bro. Godson, in token of his services to the Lodge during the first year of its existence. The brethren subsequently adjourned to a banquet at the Frascati Restaurant in Oxford Street, as no room was available nearer which would accommodate so large a number at dinner.

The next meeting of the Lodge will be held at Frascati's Restaurant on Tuesday, October 13th, at 5.30 p.m.

Appointments.

BERTHOLD, Thorne Thorne, M.D., B.S. Duham, M.R.C.S., has been appointed Hon. Medical Officer to the Woking Cottage Hospital.

ROBINSON, G. H. D., M.D. Lond., M.R.C.P., appointed Assistant Physician for the Diseases of Women to the West London Hospital.

HOYLE, J. C., M.R.C.S., L.R.C.P., D.P.H., appointed Medical Officer of Health for Rangoon.

PETHYBRIDGE, W. L., M.D., B.Sc. Lond., appointed Assistant Physician to the Plymouth Dispensary.

CHAPLIN, A., M.D. Cantab, M.R.C.P., has been appointed Physician to the Metropolitan Dispensary vice Dr. Lewis Jones.

BARRON, T. Ashby, M.R.C.S., L.R.C.P., has been appointed Surgeon to the R.M.S. "Nile," bound for Brazil and Rio Plata.

WHITEFORD, C. Hamilton, M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Provident Branch of the Plymouth Public Dispensary vice W. A. Buchan, M.B., resigned.

CAMPBELL, HARTY, M.D. (Lond.), F.R.C.P., appointed Physician to the West End Hospital for Diseases of the Nervous System, Paralysis, and Epilepsy, Welbeck Street, W., vice Dr. W. Wallis Ord, resigned.

LEGG, Thomas Morison, M.A., M.D., B.Ch. Oxon., D.P.H. Camb., appointed Professor of Hygiene to the Bedford College for Women, London.

REEKS, Henry, M.R.C.S., L.R.C.P. Lond., appointed Medical Officer for the Workhouse of the Steyning Union.

Examinations.

CONJOINT BOARD—FIVE YEARS' REGULATIONS—*Chemistry*.—A. R. Tweedie, H. H. Sloane, R. H. K. Whitaker, W. E. Graham, M. G. Winder, W. E. L. Davies, E. A. Donaldson-Sim, G. F. Furley, L. E. Hughes, G. J. Humphreys, N. Leonard, N. Lipscomb, E. W. Price, D. S. Sandiland, G. M. Seagrove, G. E. Smith, F. E. Taylor. *Pharmacy*.—A. J. Pridham, C. A. S. Ridout, A. M. Ansell, J. L. Marshall, A. H. Bostock, R. C. Bowden, C. L. Clark, H. M. Cruddas, P. G. Harvey, H. W. Henshaw, E. C. Hepper, F. Horridge, T. D. Jago, A. H. John, T. C. L. Jones, E. J. Lindsey, A. E. J. Lister, K. H. Lloyd, W. E. G. Malby, T. M. Body, T. M. Pearce, J. F. Robertson, E. D. Smith, R. L. Thornley, P. L. Vawdrey, E. Wethered, E. S. Wilkinson, G. S. A. S. Wynne, T. Young, H. N. Marrett, R. Walker, C. Fisher, H. H. Sloane, R. H. R. Whitaker, P. H. Ross. *Elementary Biology*.—R. Thompson, F. J. Wood, W. E. L. Davies, D. S. Sandiland, S. Coram, E. Langworthy.

SECOND EXAMINATION.—*Anatomy and Physiology*.—W. H. Randolph, A. L. Vaughan, C. V. Cornish, F. C. Borrow, P. Tatchell, H. S. Greaves, J. D. Hartley, T. Neave, J. J. S. Scrose, A. H. Hayes.

FOUR YEARS' REGULATIONS—FIRST EXAMINATION.—*Chemistry*.—A. W. Robertson, R. Cope, L. Galsworthy. *Materia Medica and Pharmacy*.—A. W. Robertson, G. E. French, G. C. Marrack. *Elementary Physiology*.—L. Galsworthy.

SECOND EXAMINATION.—*Anatomy, C.R.V.*—H. Farrington, J. S. Gayner, A. Hawkins. *Physiology*.—C. R. V. Brown, J. S. Gayner.

FINAL M.R.C.S. AND L.R.C.P.—The following have completed the examination and received their diplomas.—I. B. Rawling, W. R. Gibson, S. P. Higgins, W. N. Barron, G. Smith, C. F. Lillie, A. L. Ormerod, A. B. Tucker, W. M. Macdonald, W. R. Stowe, J. H. F. Nunn, A. M. Crabtree, H. C. Selby, R. de S. Stowell, C. A. Robinson, F. H. Maturin, P. O. Andrew, P. W. Brigstocke, B. W. Holmes, W. R. S. Miller, J. R. Kingdon, T. Compton, T. Hood, S. F. Smith, W. Wrangham, P. A. Palmer, H. L. Lambert, J. H. Dredge, J. B. Greatorex, E. G. Vakley, T. B. Bokenham.

SOCIETY OF APOTHECARIES OF LONDON.—*Surgery*.—T. B. Bokenham, P. M. Brittain. *Physiology*.—T. Gregg.

L. T. LAVAN has passed the Final L.D.S. Exam.

New Regulations for Dressers.

It has been resolved—

- (i) To reduce the number of Surgery Dressers dressing for the first time to four or five, according to the entry of students, the Surgery Dressers being brought up to the full number of six by the appointment of others who have been both Surgery and Ward Dressers before.
- (ii) That a second term of Dressership in the Surgery be allowed as well as a second term in the Wards.
- (iii) That Dressing in the Wards and Dressing in the Surgery need not be consecutive (i.e. an interval may occur after Surgery Dressing before taking up a Ward Dressership), but that the Surgery dressing be done first.
- (iv) That candidates for the post of House Surgeon be required, except under special conditions to be determined upon at the time of nomination, to dress a second time in the Surgery as well as in the Wards.

Obituary.

HENRY MOORE BOWMAN, M.D., M.R.C.P. (Lond.)

It is with a feeling of deep regret, which will be shared by all who knew him, that we have to record the sudden death of Dr. H. M. Bowman.

Born in Westmoreland in 1866 and brought up in the quiet atmosphere of a country vicarage, as a boy he acquired a love for the country and its sights and sounds which never forsook him. His knowledge of British birds and butterflies thus early founded was considerable, and he was never happier than when, far away from the bustle and noise of the city, he could follow up his favourite pursuit. He was educated entirely at home, and entered the medical profession probably with no other idea than that of eventually practising in some rural district, where his tastes might have full play. But fate willed it otherwise, and from his first year at Bart's, where he entered in 1885, he took a high position among his fellows, and one success after another, though it left untouched the quiet unassuming character which he had always borne, led him to hope that his work in the world might have a wider scope. Though always in the front rank and high up in the prize lists, his first definite success was in 1886, when, besides taking the L.R.C.P. and M.R.C.S., he graduated as M.B. (Lond.), and was awarded honours in Medicine, and the Gold Medal and Scholarship in Forensic Medicine. In 1889 he gave further proof of his powers by taking the Sir George Burrows' Prize in Pathology; and 1891 saw the promise, which the M.B. had given two years previously, confirmed by his qualifying for the Gold Medal in the M.D. examination.

This left no doubt as to the course which he should in future pursue, and he was in 1892 finally stampered as a physician by receiving the M.R.C.P.

His success at these examinations was the more meritorious when it is remembered that he never waited to improve his chance, but was one of the few men of his year who entered for every examination at the earliest opportunity, and from start to finish never had a failure recorded against him.

As House Physician for Dr. Church, and afterwards as Casualty Physician, he gained the goodwill and respect of all with whom he came in contact by his kindly forethought for the feelings of others as well as by the thorough and painstaking manner in which he did his work. When he left Bart's for a time to act as House Physician to the National Hospital for the Paralysed and Epileptic in Queen's Square he had made many friends.

Here, as at his old school, he won the affectionate regard of all, and rapidly came to be looked upon as a young neurologist of great promise. Both his seniors and colleagues recognised his merits and highly valued his opinion.

At the time of his death he held the offices of Assistant Physician to the Royal Hospital for Diseases of the Chest in the City Road, and Assistant Demonstrator of Physiology and Pharmacy at St. Bartholomew's, and it was in this latter capacity that most of us knew him best.

Always kind and considerate, ever ready to go out of his way to help those under him, it is not to be wondered at that Bowman was most popular and successful as a teacher.

He was always thoroughly in earnest about anything he undertook;

when at work he worked and when at play he played, and this, rather than any special brilliancy, perhaps, accounted for his success.

On July 16th he saw his out-patients at City Road and did his other work, and at night retired to rest apparently in his usual health, but the following morning was found dead in his bed, having passed away quite quietly in his sleep.

A post-mortem examination revealed the fact that he had a large dilated heart, the failure of which had induced a fatal syncope.

From statements of his mode at various times it would appear that from his nature, he never complained. The knowledge of his uncertain tenure of life, however, in all probability accounted for the shade of melancholy which occasionally possessed him.

The funeral took place at the Great Northern Cemetery, and was largely attended by the inhabitants of New Southgate, where his father is vicar, and by many of his old Bart's friends.

Death at any time must leave mourners, even when it closes a long and prosperous life which has extended to the allotted span of human kind and has left its task complete. But the sudden termination, almost at the commencement, of what gave every promise of being an exceptionally brilliant career is inexplicably sad.

"The memory of the wither'd leaf

In endless time is scarce more brief

Than of the garner'd Autumn-sheat"

is a thought which, true as it is, brings little consolation in the present, and those who were first year's men together in 1885, those who worked together on the Junior Staff in 1890, or later as Demonstrators in the Medical School, will feel with sorrow that yet another of that little band, bound together by that common tie, is gone.

Gone before his time, and though others take his post and carry on the work he might have done, a vacant place remains.

Correspondence.

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

CARBUNCLES AND PLAGUES.

SIR,—In Mr. R. M. West's interesting paper on "Carbuncle," published in last month's JOURNAL, I was surprised to find the following statement:—"Most of the so-called 'Plagues' which infested Europe during the Middle Ages, notably the Great Plague of 1665, were characterised by the appearance of carbuncles, or as they were then called 'buboes,' on the body of the patient," and their "appearance . . . was looked upon as a not entirely unfavourable sign."

I must confess curiosity as to the source of Mr. West's information on the identity of carbuncles and buboes. All the authorities, so far as I am aware, if not from Thomas Lodge, the plagiarist, at least from Hodges and Heinerbroeck down to Surgeon-Major Colvill and Dr. J. F. Payne, seem agreed that the buboes and carbuncles of Plague are distinct in frequency, position, and prognosis.

In frequency.—While buboes occur in all but the most rapidly fatal cases, carbuncles have only been met with in 24 to 3 per cent. in the recent epidemics of which we have reliable statistics.

In position.—Buboes usually appear in the lymphatic glands of the groin (45–50 per cent., Payne; 75 per cent., Osler), less frequently in the axilla, and occasionally in the neck; while the favourite sites for carbuncles are the interscapular and gluteal regions.

In prognosis.—While buboes which suppurated early were regarded as a good omen, carbuncles seem always to have been looked upon as a very grave sign.

That the old physicians clearly distinguished between them is also seen in the fact that the favourite treatment for buboes was to "mature" them, and then open as soon as possible, while the actual cautery was frequently recommended for carbuncles. We may fairly regard buboes as typical of Levantine Plague, and carbuncles as merely an occasional complication. Recent autopsies show that the external bubo is only an outward sign of a general glandular affection in which the lymphatic glands may be agglomerated to form masses weighing two pounds.

One of the few living physicians with a personal knowledge of Plague, Dr. Payne, clearly holds these views, and in his most recent utterance on the subject (in Prof. Allbutt's *System of Medicine*) I can only find one remark suggestive of the origin of Mr. West's statement. Occasionally, it seems, the skin over the bubo becomes gangrenous, when the distinction between it and a carbuncle would become obscured.

I am, faithfully yours,

W. LANGDON BROWN.

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

INSTRUCTION IN MEDICAL ETHICS.

DEAR SIR.—Might I suggest that it would be a great advantage for the Senior Students of the Hospital if one or two lectures on the subject of "Medical Ethics and its Allies" were included in the course on the Theory and Practice of Medicine. My reasons for this are, first, that there is a very scanty amount of literature accessible to the student (even if he cares to look for it) on these questions; and secondly, men launched forth from the hospitals into practice are at once confronted with various questions, both of ethics and etiquette, on which they have never thought, and have had no instruction *ex cathedra*. It is hardly for me to suggest when or by whom such instruction should be given, but I cannot help thinking that if any two lectures (and possibly these would be enough for practical purposes) were given, one by a consultant, and one by some old and experienced Bart.'s man in general practice—of whom our seniors must know several,—the questions touched on would be treated from both points of view, and it would tend to a continuance of those friendly relations which ought to exist between the two classes of practitioners; and I feel sure that advice from elders in our ranks would be welcomed by many a man. He who is recently qualified knows only too little of these subjects, and of the business side of the profession, and it is likely that many of the elements of *dissonance* in our professional life might be removed, if we had, while students, more dogmatic instruction in such matters. I am, dear Sir, yours faithfully,

LEWIS G. GLOVER.

HAMPSTEAD;
August 4th, 1896.

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

ANNOUNCEMENTS OF COMING EVENTS.

DEAR SIR,—In answer to "A keen old Bart.'s Man" we write to say that the date of our Sports could not be fixed until after the United Sports were arranged; this made it too late for insertion in the May number, and the June number did not come out until after the Sports were over.—Yours,

HON. SECS. ST. B. H. ATHLETIC CLUB.

[This letter was crowded out of the July number.—ED.]

Review.

THE SURGERY OF THE CHEST. By STEPHEN PAGET, M.A., Oxon., F.R.C.S. Price 10s. 6d. net. Bristol: John Wright and Co. London: Simpkin, Marshall, Hamilton, Kent and Co., Ltd.

It will be a matter of surprise to most that there is enough "surgery of the chest" to fill a book of 460 pages. It will be a still greater surprise to find that the subject can be made as full of interest from beginning to end as the book before us is. This is a practically complete record of all surgical work that has been done on the chest from the earliest ages, and in every part of the world, together with the author's own views and the results of his own clinical experience. Though Mr. Paget has treated the subject in an exhaustive and eminently scientific manner, he is yet brief and clear in his style, and any further abridgment must have been attended with loss to the reader.

The book is divided into two parts, the first and shorter part dealing with injuries of the chest, and the second with diseases of the chest. There are twelve plates, drawn from museum specimens, and clearly illustrating various pathological conditions described in the text. These plates, the preface tells us, are the work of the author's wife.

The wealth of clinical record, with the multitudinous references, can hardly fail to make it a standard work. The fair criticism of the often conflicting views of others is evidence of the broad-minded and unbiased manner in which the author has done his work, and the reader is able to form his own conclusions from the cases cited. To the student, the absence of dogma may perhaps be a little puzzling, but few will consider this a fault.

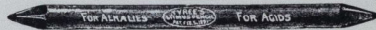
The treatment of empyema is very fully considered. The author is not in favour of immediate irrigation at the time of operation. He is very definite on this point, and brings much clinical evidence in support of his view. It is interesting to learn that Hippocrates treated empyema by incision, and kept the wound open with either a "strip of linen cloth," or in the later stages a "small rod of metal." In spite of the teaching of Hippocrates the Middle Ages treated empyema by repeated puncture, and within the last twenty years,

puncture, repeated even to the hundred and twenty-second time, appears to have been a common treatment. The resulting amyloid disease seems to have been just as common.

The sections dealing with fractures and dislocations affecting the sternum and neighbouring cartilages, hernia of the lung, and diseases of the bronchial glands, are, from the rarity of the conditions described, of considerable interest. We recommend the book to all whose interest lies in Surgery, and can promise that its perusal will bring them not only instruction, but much pleasure.

New Productions.

"*Apenta*" Water.—With regard to our remarks in a recent number upon this water, we notice in the *Therapeutische Monatshefte* of June last, a report by Professor Oscar Liebreich, Regius Professor of Chemistry in the University of Berlin. Professor Liebreich, speaking of the necessity for some assurance that the composition of a water used medicinally shall be subject to only slight variations, remarked that it was a "matter for high satisfaction that the aperient water 'Apenta' from the Uj Hunyadi Springs in Ofen has been placed under State control." Variations in the composition of "Apenta" are thus guarded against as far as possible.



Litmus Pencil.—Messrs. Thomas Christy and Co., of 25, Lime Street, F.C., have sent us a novelty in the shape of a pencil, one end of which is composed of red litmus and the other blue. The pencil is made like an ordinary cedar pencil, and sharpened in the usual way. A line is drawn upon a piece of paper either with the blue or the red end, and the paper is dipped in the solution to be tested. The sensibility is greater than that of ordinary litmus paper, and the makers state that their pencil will stand exposure without change. Experiments made by us with the pencil have shown that it is a most satisfactory method of using litmus, and the hardness of the preparation is such that when once sharpened it can be carried in the pocket with very little fear of the point being broken. The price of the pencil is 1s. 3d., and one pencil would probably suffice for an almost innumerable number of tests.

Births.

ECCLES.—On July 18th, at Upper Norwood, the wife of H. Annesley Eccles, M.D. Lond., of a son.

POLLARD.—On July 26th, at Tollesbury, Essex, the wife of W. H. Pollard, M.B., of a son.

BATTEN.—On July 21st, at Campden Lodge, W., the wife of Rayner D. Batten, M.D., B.S. (Lond.), of a daughter.

MASTERMAN.—On July 5th, at Bludan, Syria, the wife of Ernest W. Gurney Masterman, F.R.C.S., F.R.G.S., of Damascus, of a daughter.

REECE.—On July 10th, at 31, Holland Villas Road, W., the wife of Richard J. Reece, M.D., of a daughter.

Marriage.


READ—HUDSON.—On May 23rd, 1896, at All Soul's, Langham Place, by the Rev. Canon Acheson, Henry G. Read, M.R.C.S., L.R.C.P., L.S.A., L.D.S., of 1, Portland Place, W., eldest son of Mr. H. D. Read, of 30, Finsbury Square, E.C., and Martins Shipbourne, Kent, to Sarah Theresa Hudson, of Barling House, Barling, Essex.

Deaths.

ECCLES.—On July 21st, at Upper Norwood, Mary Sophia, the beloved wife of H. Annesley Eccles, M.D. Lond., of nephritis.

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette*, *St. Thomas's Hospital Gazette*, *St. George's Hospital Gazette*, *St. Mary's Hospital Gazette*, *London Hospital Gazette*, *The Nursing Record*, *The Hospital*, *The Charity Record*.

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. BOOTH, Advertisement Caseworker and Collector, 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,

SEPTEMBER 14th, 1896.

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

IT is our custom, in the September number of each year, to address some remarks especially to those whom we expect to welcome as First Year men on the 1st of October. Though comparatively unimportant beings in the life of the Hospital at first, these freshmen are potentially of great importance. Many of them will ultimately hold positions of authority and guidance in the Hospital, and some may perhaps one day proudly write themselves members of the Staff. Hence it is of importance that they should be properly trained to support the ancient traditions of our Hospital and our Profession. We purposely place the traditions of the Hospital first, for what are the traditions of the Profession but the amplified traditions of our great hospitals? The battles of our Nation are won first, they say, in the playing-

fields of Eton, and certainly honour and courtesy towards one's fellow practitioners is the result of earlier training in honour and courtesy towards one's fellow dressers and clerks.

First Year men are therefore attacked on every side with torrents of advice, and the keynote of the whole is "CULTIVATE THE POWER OF OBSERVATION." This may almost be called the text of the student's curriculum. Again and again are students told that the facts they learn are of small importance as compared with the training of their mental powers and the habits of observation they form. In support of this we need only cite Sir James Paget's address at the last Distribution of Prizes. So voluminous and continuous is the advice of this sort that the freshman receives, that there is little need for the JOURNAL to join forces, and it is our intention rather to confine ourselves to the physical side of student life.

Things are now very different from what they were a few years back. Organisation has been steadily at work, and there is now no excuse for those who say that the difficulties in the way of getting athletic exercise are so great as to prevent them from taking up any games. Our ground at Winchmore Hill, with its excellent dressing accommodation, can compare well with any other in the land, and is within comparatively easy access from the Hospital. Our boxing rooms are barely a hundred yards from the Hospital. The Amalgamated Clubs' entrance fee is small, and paid at the outset makes one permanently free of all the Clubs.

We cannot too strongly impress upon our freshmen the extreme importance of the double aim of their training—to make them men as well as medical men. If they confine themselves to their strictly professional work, and do not interest themselves in the every-day affairs of the world, they will find ultimately that the links that connect them with men outside their own profession are very few indeed. Conversation will become irksome when it leaves the familiar bounds of medicine, and that abomination, "shop talk," will be the almost inevitable result. When they leave the Hospital and go out into the world they will find them-

selves handicapped, and will see men of the world, though professionally, perhaps, much less able than themselves, succeeding far better. The "sportsman" is not likely to reach this unhappy condition. His various matches bring him into contact with many men in other walks of life, and the opportunities for interchange of thought are many. It is surely hardly necessary for us to even refer to the other great advantages of an athletic life,—increased health and strength, and increased capacity for work. These must be obvious, to use the words of our great physiologist, "even to the casual observer."

We draw the attention of all freshmen to the official announcement of the Amalgamated Clubs in this number, in which they will learn how to introduce themselves into the Athletic life of the Hospital; but we would also mention the Volunteer Corps, to which many Bart.'s men belong. "The Artists" (the 20th Middlesex R.V.) are so well known that they can need no praise from us, and the Medical Staff Corps includes a "Bart.'s Hall-Company," while one at least of their officers is a prominent Bart.'s man. Men who intend to become volunteers should join early in the October of their first year, so that they may complete their three years, at least, in the earlier and less fully occupied days of their studentship. Life in the "Artists" we speak of with experience, and the many friends one made in the corps, the "sing-songs" at headquarters and round the camp fire, the shooting and the various company competitions, constitute a retrospect which can never be looked upon with out pleasure.

Our advice to the freshman is—GET AS MUCH ENJOYMENT OUT OF YOUR STUDENT DAYS AS POSSIBLE. Be a steady worker, but be everything else that you can besides. Aim to figure in the Hospital Prize Lists, but also in the Cup-teams of your Hospital and your Volunteer Company. And lastly, whatever your occupation, let it be ruled by the motto over the door of the Medical School, "WHATSOEVER THY HAND FINDETH TO DO, DO IT WITH THY MIGHT."

The forthcoming Election of Direct Representatives of the Profession to the General Medical Council.

WHAT the constitution and procedure of the General Medical Council are recognised on all sides, and even by many members of the Council itself, to be gravely imperfect is well known, and for this reason the Election of Direct Representatives in November next assumes a very special importance. The

English practitioners have for the past five years been represented by Dr. Glover, Mr. Wheelhouse, and Sir Walter Foster. Of these the last two have finally resigned their appointments; but Dr. Glover, whose labours in the cause of his fellow-practitioners have been most assiduous, offers himself for re-election; and inasmuch as the profession five years ago placed him at the head of the poll, there is no doubt that a similar honour again awaits him. Dr. Glover has chosen as his future colleagues from among the candidates who have come forward on the present occasion to contest the two seats vacated by Mr. Wheelhouse and Sir W. Foster, two general practitioners of the best traditions and professional standing, namely, Dr. S. Woodcock of Manchester, and Dr. Lovell Drage of Hatfield.

Dr. Woodcock especially replaces Mr. Wheelhouse as the nominee of the North, and being the President Elect of the Lancashire and Cheshire Branch of the British Medical Association, and unanimously (together with Drs. Glover and Drage) nominated thereby, he will doubtless find himself returned, and will have a wide field of legislative reform before him.

We are glad to see that in Dr. Lovell Drage an old Bart.'s student is a candidate.

Dr. Lovell Drage, after graduating at Oxford, was House Surgeon in 1884 to Mr. Tom Smith, and Midwifery Assistant to the late Dr. Matthews Duncan. Well known to his fellow students and to his fellow-practitioners in Hertfordshire, as he is, we hope that Bart.'s men will cordially and actively support with their votes and influence both his candidature and also that of his colleagues Drs. Glover and Woodcock.

Clinical Lecture on Congenital Club-foot.

By ALFRED WILLET, F.R.C.S.

I PROPOSE to-day, gentlemen, to take into consideration the treatment of that variety of congenital club-foot technically termed *Talipes equino varus*.

I do not intend to discuss the causation of club-foot, interesting as the ætiology of this affection is, but to start at once upon perhaps the most important part of the subject, namely, its treatment. Hospital surgeons will, I am confident, agree with the statement that the results of treatment of hospital cases are usually very disappointing. It is most mortifying to the surgeon, and to the house-surgeon and dresser, who have treated the case, and most disappointing to friends, all of whom been have gratified by the early signs of improvement, to see after a time that the deformity has returned. In private practice, on the other

hand, treatment is usually quite successful. I desire to direct your attention to the chief causes of this difference in the results, since they emphasise the necessity of prolonged care and watching of patients—needless to add, almost invariably infants—after the deformity has been rectified.

Before attempting to rectify the deformity one must study its deviation from the normal foot. It is not a perfectly easy matter to point this out, but the following features can be fairly well demonstrated. These specimens from the Museum before you will help to make clear what I am about to say.* Firstly, one notices a drawing up of the heel. This drawing up of the heel (the *equinus* portion of the deformity) has the effect of forcing the astragalus forwards, so that only about its posterior half lies under cover of the tibia; then this posterior part, being wedged in between the tibia above and the os calcis below, becomes flattened. In the next place, one observes in the skeleton of the deformed foot that the bones of the foot collectively are adducted and rotated upwards and inwards, constituting the *varus* portion of the deformity. Certain consequential changes are to be observed: the fibula is relatively increased in length, so the external malleolus is relatively to the internal lower than normal. Other points are alterations in the shape of the astragalus; posteriorly it is flattened, owing to the neck being bent, and as a result the head is turned inwards, and, of course, the scaphoid and cuneiform bones become correspondingly altered in direction. These, then, form the second noticeable changes, and I regard them as most important. The third feature which we cannot help observing is the alteration in size between the bones on the outer side of the foot, e.g. the cuboid and fifth metatarsal, which are relatively much enlarged, whilst those on the inner are lessened. Taken as a whole, the club-foot has a curved shape, the concave surface being directed upwards; and as a further result we note that the bone which in the erect position of the body touches the ground is the cuboid instead of the os calcis, and of course, in older patients, has to receive the weight of the body. Hence arise the large bursal swellings found in patients who have stood and walked. There are, no doubt, many minor changes, e.g. atrophied muscles; but the broad facts are the twofold nature of the deformity—the drawing up of the heel and the adduction and the upward and inward rotation of the foot.

I have brought three cases of congenital club-foot to show you; two are infants under two years old, the first a boy of about eighteen months old, and the other quite an infant in arms. Both were sent to me from the Orthopaedic Out-patient Department some three months ago. Treatment by division of all the tibial tendons in addition to the Achilles tendons, followed by extension, had been carried out, but without success, and I was asked by

* Specimens exhibited.

Mr. Walsham to undertake some operative measure for their cure. With regard to the treatment of club-foot, my view is that infants with club-foot ought to be cured by simple measures, and by the term simple I mean such as do not go beyond division of the tendo Achillis, or in some cases possibly the plantar fascia. I think the division of any of the tibial tendons unnecessary and inadvisable. My reason for adding the latter term is that usually the sheaths are opened in the tenotomy, and then this serious risk arises, viz. that in the process of repair the tendon will become adherent to the sheath, the muscle will have its fixed point above the ankle-joint, and therefore can no longer normally move the foot.

In the next place, to cure club-foot, or rather to place the foot in the position in which a cure may eventually result,—and this is a distinction which is of fundamental importance, the forgetting of which I take to be a prime cause of failure in hospital patients. With many surgeons I advise the separation of the procedure into two distinct stages, the first being directed towards overcoming adduction and rotation, *i.e.* the varus part; and secondly, after this has been accomplished, to take in hand the remaining equinus. A few words in explanation of the methods I adopt. It is most desirable and quite practicable to start the treatment of varus almost from birth. The mother or nurse should be instructed to hold one or other of the baby's feet, when both are deformed, in her hands, drawing each in turn outwards in the endeavour to bring the feet in line with the legs, aiming to reduce the deformity to one of equinus. Soon the foot may be bandaged between two light elastic splints, either steel or whalebone. At three months old, or if the baby is of this age when coming under treatment, plaster-of-Paris bandages have to be employed.

The feet of both of these little creatures, when admitted under me, were in the usual position of equino-varus. Feeling reluctant to perform any sort of tarsal operation upon such young subjects, I set to work *de novo* on the lines previously described. Holding each foot in full range of extension, I applied—after enveloping it in wool—first a domette bandage and then plaster-of-Paris bandages, the feet being held in the straightened position until the plaster had set. I had to repeat this process several times. Two months elapsed before the varus part of the deformity in these infants was overcome. I believe now that they will both, after about a month, be able to have an apparatus applied to keep their feet in position until they can wear boots; for, as you can see, the feet are in quite excellent position.

In the routine practice, the re-application of plaster-of-Paris cases should be done once a fortnight; and during the first stage, when treating the varus, should be continued until one can bring the foot quite easily into the position of simple equinus, showing that the varus has been overcome.

This only implies that the fibrous structures have been stretched. Of course, no improvement in shape of the bones can have been brought about in the time, but the tendons and ligaments can be stretched, and the effect is that eventually the bones, being placed in their natural relation to each other, and also being no longer subjected to abnormal pressure, grow and develop almost if not quite perfectly. This part of the treatment may take six weeks to three months; you need not be in any way discouraged if progress seems very slow, but the younger the infant the more rapid the improvement. Pressure sores will be obviated by strictly and carefully adhering to the details of the routine.

Now we approach the treatment of the second stage. In this the tendo Achillis has to be divided, and perhaps also the plantar fascia, if found to be contracted. After the completion of the operation the foot should be forcibly flexed, keeping it all the time carefully everted; then plaster-of-Paris bandages are to be applied as previously described. There is a right and a wrong way in bandaging club-feet, and the right way is always to pass the bandage from the fibular side of the leg over the front and inner aspects, and then under the plantar and up over the outer, stretching the foot outwards at each turn. Although a small detail apparently, it is a matter of real importance, I can assure you, for if reversed the surgeon is favouring the deformity. This treatment has to be carried on until the entire deformity has been reduced. At the present day, after division of the tendo Achillis, we at once fully flex the foot. In about six weeks the plaster should be taken down, and perhaps reapplied once or twice. The foot is now *not cured*, but it is in a position for a cure to be eventually attained. A Tamplin's shoe, or Baker's modification of it, must be worn continuously, *i. e.* night and day, being taken off for washing, massage, and passive movements only, and being carefully reapplied immediately afterwards.

As soon as the child is old enough to walk, a boot with outside iron carried above the knee is to be worn during the day. Careful attention has to be given to the repair and renewal of the boot or iron. At somewhere about five years of age these stringent regulations can be relaxed a little, and at seven the child should be cured. It is owing to the omission in carrying out such stringent regulations as these that hospital patients do so badly, and whilst in the case of private patients they are diligently followed, and hence the recoveries are almost uniformly complete, I could quote numerous instances of individuals operated upon in infancy who are now grown up and remain quite cured. If only treatment be carried out methodically, the deformity rectified, and the foot kept in position for some years, the outcome is entirely satisfactory. What one meets with in hospital patients is commonly this: that as soon as boots and irons are supplied, and

the patient leaves the hospital, the patient is lost sight of, perhaps for good, but at least for a year or two; for as boots and irons get out of repair, and of course the child in time outgrows them, they are left off and the child given ordinary boots in their place. At last, after an interval, say of two or three years, the mother brings back the child with the condition of club-foot completely returned. If one ventures to complain of the neglect, the answer is, "Oh! the boots came to pieces," or "He outgrew them and I could not afford to buy any more." If a young child is allowed to put aside boots and irons, it is only a matter of time for the deformity to be reproduced. This is the chief reason for the unsatisfactory results of the treatment in hospitals of infants with club-foot. When patients come back in this relapsed condition the term "inveterate club-foot" is applied, for at three or four years of age the bones have acquired permanent shape and serious operative measures have to be adopted, for I may say at once that it is a waste of time to go over the old stage again. Rarely does one get any benefit from re-division of the tendo Achillis.

Very many are the operative measures devised for the cure or amelioration of inveterate talipes equino-varus. I shall content myself with describing the one or two which I am in the habit of performing.

I. *Tarsotomy*.—This consists in cutting out a wedge-shaped piece of the tarsus, having the cuboid for the base and the scaphoid or neck of the astragalus for its apex. This is a large operation; it must and does interfere with the growth of the foot, and makes it ultimately very short. It has this defect, that it does not with any certainty effectually deal with the deformed astragalus.

II. The operation I advise is *Astragalectomy*. I have here one patient, a little boy, for whom this operation has been performed. His case is a good example of the manner in which little hospital patients with club-foot drift into the inveterate state. The tendo Achillis had been divided when the child was about nine months old, bearing out in this respect what I said just now, that treatment is often commenced much later than is desirable. As far as I can make out, the first step taken was the division of the tendo Achillis; the foot was then wrenched and put up in plaster. The patient was at this time under treatment in the Orthopædic Department, but a good result was not obtained, for the dresser's notes describe the affected foot on admission as follows:—"The right foot is inverted and the heel drawn up; the inner bones of the foot are atrophied, the outer ones hypertrophied; the head of the astragalus can be felt to be bent and turned inwards; a thickened bursa lies over the cuboid." Under these conditions I decided it was useless to attempt any further temporary measures, so I advised and performed astragalectomy on February 18th. The position obtained was satisfactory, and the foot was at once put up in plaster of Paris. I now

Pathological Findings.

By A. A. KANTHACK, M.D., Lecturer on Pathology.

I.—ALBUMINURIA.

TO understand the pathology of albuminuria we must go back to physiology and histology. Unfortunately, physiologists are not agreed whether urine is a filtrate from blood and lymph or a secretion. A true filtrate it cannot be, since it normally contains no albumen; so that, if not a secretion, it could only be the product of diffusion or dialysis. Let us assume that, as far as the watery constituents are concerned, we are dealing with a process of diffusion, this being the view to which many at the present time subscribe, although in the present discussion it is almost a matter of indifference what view we take. The chief filtering and dialysing apparatus are the Malpighian bodies, which consist of (a) a capillary tuft which is invaginated into (b) the cavity of the capsule, which is lined by a thin, delicate epithelium reflected also over the capillary tuft. This cavity is drained by the uriniferous tubule, which carries the contents of the capsule into the collecting tube, and the latter discharges it into a calyx. Thence it reaches the bladder along the pelvis and the ureter. It must be remembered that normally everywhere in the body fluid passes out or transudes from the capillaries through their endothelium into the surrounding tissue, and that lymph formation depends mainly on this process. The fluid which passes through the capillary-endothelium is, of course, albuminous.

In the kidneys we may have, theoretically at least, a double process: (a) one of filtration, fluid passing as lymph from the glomerular capillaries into the hypothetical space between them and the capsule, and (b) another of diffusion, this lymph dialysing through the capsular membrane, so that the fluid in its passage from the capillaries to the capsular space has to traverse two membranes—(a) the capillary endothelium, which is a filtering membrane, and (b) the glomerular or capsular epithelium, which acts as a dialysing membrane. Now, if, as we assume for the present, urine be a product both of filtration and diffusion, whatever fluid appears in the cavity of the capsule must have come from the glomerular capillaries. But since under normal conditions there is no albumen in the urine, it is evident that while the capillary endothelium is permeable to albumen the glomerular epithelium is impermeable to albumen, because if these two membranes were equal in their permeability, then the fluid in the capsular cavity would closely resemble in composition the fluid passing out from the capillaries, *i. e.* it would more or less resemble lymph and be albuminous. Hence, as Cohnheim asserted, it is the glomerular epithelium which prevents the albumen

show his foot; it is plantigrade, and there is good flexion and extension between the os calcis and the tibia and fibula; this will be supplemented later on by increased range of movement in the transverse tarsal joint. On the 8th of March the plaster was removed for the first time; the wound was almost completely healed, it was re-dressed and the foot put in plaster again. On the 13th it had to be removed, as the gauze had induced eczema of the skin which lasted for some time; this accident certainly affected the position a little. Eventually he was placed in a boot and iron, which was fitted with a toe-elevating spring.

I will mention one instance illustrating the superiority of astragalectomy over tarsotomy. A boy, about seven years old, was brought in with inveterate club-foot. He had had tarsotomy performed on his right foot elsewhere; both feet were, however, still deformed, the right quite as severely as the left, for in both he walked upon the outside of his feet, so that the operation had completely failed to relieve him. I performed astragalectomy on the left foot, and it came into good position; then I operated similarly on the right. A year or more afterwards I showed the boy, and pointed out how the single operation of astragalectomy had been more successful than when it had taken place after tarsotomy, because in the latter case the foot was stunted and shortened by the first operation. I confess that in adults the removal of the astragalus may not be sufficient, owing to the curving of the feet, due to that condition of rotation with hypertrophy of the bones on the outer side of the foot, and of atrophy of those on the inner, which I have mentioned. In such cases I think tarsotomy, *i. e.* removing a wedge from the outer side of the foot, may be advisable, and personally I should limit the operation of tarsotomy to the rectification of any marked deformity remaining after astragalectomy.

The advantages I claim for astragalectomy over other operations for inveterate club-foot are these:—First, owing to the complete ease with which the foot can be placed in its normal position after the astragalus has been excised, an everted plantigrade position is secured. Secondly, that usually the os calcis occupies the space previously filled by the astragalus, lying under the tibia and between the malleoli, permitting serviceable movement at the new ankle-joint, although occasionally I have found it necessary to divide the fibula just above the external malleolus, in order to obtain a space wide enough between the malleoli to receive the upper surface of the os calcis. Lastly, the improvement effected is permanent; one has no fear of relapses after astragalectomy. Often as I have performed this operation, the after-result in no instance has ever made me regret having removed the astragalus, for although the foot is by no means perfect and in no way comparable to the well-nigh normal foot resulting from successful treatment in infancy, it is nevertheless serviceable, and allows ultimately an ordinary boot to be worn.

from passing into the urine, *i. e.* it behaves as a perfect dialysing membrane.

However, we may assume—what as a matter of fact is believed by many—that the glomerular epithelium is so closely fitted over the capillary tuft that we have practically a single membrane interposed between the blood in the capillaries and the capsular space, this being a membrane which is impermeable to albumen, *i. e.* a membrane which may be compared to the artificial membranes used in physical and chemical experiments. And, therefore, in the production of urine we are not dealing with an ordinary filtration, but with a process of diffusion or dialysis, to which must be added, however, the specific activity of the renal epithelial cells, which are capable of removing and altering harmful or useless substances in the blood or lymph.

Passing now to the consideration of albuminuria, we know that albumen appears in the urine in conditions which clinically are extremely diverse. We have albuminuria with (a) acute and subacute inflammation of the kidney, (b) with so-called chronic parenchymatous changes, (c) venous engorgement, (d) anæmia or cachectic conditions, and (e) with febrile disturbances leading to cloudy swelling. At first sight it would seem that it required a different explanation in each case. The pathologist, studying a phenomenon common to a number of different lesions, must attempt to search for some factor common to all these lesions. The common factor is, I think, easily obtained in the present case. The acute inflammation, the venous engorgement, the anæmia, the cloudy swelling, and the "parenchymatous degeneration" all imply injury to the renal tissues, *i. e.* injury to the glomerular membrane or the dialysing membrane. This injury, which may be physiological or functional and histologically not demonstrable, impairs and reduces the impermeability to albumen of the membrane, so that now it can no longer perform its work satisfactorily, and albumen will appear in the urine; diffusion ceases and exudation takes its place. We have here, as a matter of fact, a condition comparable with what occurs in œdema; the common phenomenon underlying all the various forms of œdema, whether passive, inflammatory, renal, or anæmic and cachectic, is the increased permeability of the capillary membrane, *i. e.* increased transudation and exudation; all other factors are subsidiary to this.

Before proceeding further I must allow myself a digression on the pathology of "chronic parenchymatous nephritis." The term "chronic nephritis" implies "chronic inflammation." At all times, in my lectures and elsewhere, I have insisted on this, that such a thing as a chronic inflammation does not and cannot exist. What is generally, though erroneously, called chronic inflammation is the result, as a rule, of a previous inflammation, or of repeated attacks of inflammation, or of repeated or continued irritation. This result may show itself in two directions, (a) as a fibrosis or fibrous

hyperplasia, or (b) as a degeneration; the two processes often occurring together. In "chronic parenchymatous nephritis," the parenchymatous degeneration is the result of a single or of repeated attacks of acute (or subacute) inflammation. It would be wise if the term chronic inflammation were given up unconditionally, being as misleading as it is incorrect—in fact it is archaic. The most remarkable change in so-called parenchymatous nephritis is the degeneration of the renal epithelium. The fibrous tissue increase, which is generally noticed in cases of "chronic parenchymatous nephritis," and which occasionally leads to a small white kidney, is merely the reaction of the connective tissue against an irritation and a degenerated or degenerating tissue. Tissue degeneration, if not repaired, leads to fibrosis: that is a pathological law of which we find instances everywhere; degenerated muscle fibres, degenerated nerves, necrosed liver cells, &c.—they all are replaced by invading and proliferated connective tissue.

To return. The essential phenomenon of "chronic parenchymatous nephritis" being degeneration of the renal epithelium, we can readily understand that the glomerular membrane also must suffer, and that its impermeability to albumen is impaired, if not abolished. In venous engorgement, in anæmia, in cachexia, in various forms of poisoning and intoxications, the epithelial degeneration can be readily demonstrated in those parts of the kidney where the epithelium lends itself to easy observation, and we have a right to assume that analogous changes also occur in epithelium less readily studied under the microscope; and often, indeed, they can be detected in the glomerular epithelium.

In all cases of albuminuria, then, we either have, or with justice may assume, a lesion of the glomerular membrane, which renders it permeable to albumen. This, however, is not all, for we find (1) that the amount of albumen present in the urine varies with the disease and the pathological condition present; and (2) that the quantity of urine passed stands in an inverse ratio to the intensity of the albuminuria. Why, for instance, should there be a much greater albuminuria in acute nephritis, or in advanced cases of morbus cordis, than in fever, cachexia, or anæmia? This also is easily explained. In an acute inflammation we have an extreme dilatation of the capillaries, with considerable retardation of the flow of blood through them, and an almost complete exudation of serous fluid through the endothelial wall, rendered more permeable during the process of inflammation. Exactly the same occurs in an acute nephritis. Diffusion being abolished, almost complete exudation takes place, and a fluid rich in albumen passes through the walls of the glomerular capillaries, and therefore also through the impaired glomerular membrane into the capsular space. The circulation being retarded, the amount of fluid exuded, as we shall explain below, is small. The tissue

processes in acute nephritis are exactly the same as in inflammation elsewhere, *i. e.* they show themselves in the connective tissue primarily, and the changes in the renal glandular tissue are secondary to these. And just as with other forms of inflammation there appears a serous effusion due to the turgidity of the capillaries, and to increased permeability of the capillary wall, so also in acute nephritis we have a serous exudation from the renal capillaries generally, accompanied by an acute impairment of the impermeability of the glomerular membrane, *i. e.* considerable albuminuria. The fact that in acute Bright's disease the urine often contains blood, is evidence of the enormous permeability of the glomerular membrane. It must be remembered that the secretion of urine is not entirely abolished, because the function and activity of the kidney are not completely suspended.

Passing now to the well-marked albuminuria which is present in some cases of morbus cordis, we find that this is commonest in those cases where the venous engorgement is considerable, and where œdema is present. The dropsy is due chiefly to (1) capillary turgidity, (2) increased permeability of the capillary endothelium, and (3) diminished absorption by the lymphatics. Similarly, when the kidney is engorged in mitral disease, the capillaries are dilated, turgid, and full, the endothelium and glomerular epithelium are badly nourished, suffer, and become so permeable that almost pure plasma transudes into the capsular space, whence it is at once carried away by the uriniferous tubule.

In anæmia and wasting, occasionally slighter forms of œdema are met with, and these are explained by assuming that the capillary endothelium suffers with the rest of the tissues, and consequently becomes more permeable. Similarly, when in these conditions albuminuria is present, we may assume that the anæmia, marasmus, or cachexia have led to morbid changes in the glomerular membrane, so that it ceases to be impermeable to albumen; and this, in part at least, explains the albuminuria. Here it may be mentioned that with acute nephritis there is often also an increase of the capillary permeability in other parts of the body, leading to the appearance of renal œdema, so that there is a pronounced tendency towards leakage in the filtering membranes generally.

We can now also understand why in acute nephritis there should be a more intense albuminuria than with anæmia or cachexia. Just as inflammatory œdema is more intense than the œdema of anæmia, because there is a greater possibility of copious transudation on account of the coexistence of a high capillary pressure and an acutely increased endothelial permeability, so also in acute nephritis for the same reasons there must be a more intense albuminuria than with anæmia or cachexia. Again, just as cardiac dropsy is more intense than the anasarca of cachexia, so also the albuminuria of mitral disease is more intense than

that of cachexia, because in the former disease there is a more intense capillary turgidity, even if the permeability of the endothelium be no greater.

In infective fevers the toxins manufactured by the bacteria exert a deleterious influence on the renal tissues. Evidence of this we find in the cloudy swelling, so frequently present in bacterial diseases. These degenerative changes probably lead to some degree of permeability of the glomerular epithelium, and, furthermore, the toxins frequently also cause a dilatation of the capillaries, and thus favour transudation.

We see, therefore, that in all cases of albuminuria we have changes which reduce the impermeability to albumen of the glomerular membrane, and in some cases there is also an accompanying rise of the capillary pressure: *diffusion ceases and exudation takes its place*, as we said above. It appears, as we shall see, that the intensity of the albuminuria varies directly with the intensity of the capillary pressure in the glomerulus, although the quantity of urine passed is independent of it.

Now, it might be asked why in "chronic parenchymatous nephritis" the albuminuria should generally be so intense. We can easily understand that the necessary permeability of the glomerular membrane is present, because the most striking lesion of the large white kidney is degeneration of the renal epithelium, whether fibrosis be absent or not—and this permeability to albumen is no doubt considerable. But, in confirmation of what we have said, in chronic parenchymatous nephritis there is also a marked capillary turgidity and a high capillary pressure. This must be so, because the large white kidney is greatly congested and the capillaries are widely dilated when we examine microscopic sections. Again, with this affection there is a marked tendency towards dropsy in other parts of the body, favoured by the hydræmic plethora which accompanies the disease. So that here also we have no exception to the above statement, that the albuminuria is rendered possible by the permeability of the glomerular membrane, but that its intensity depends on the glomerular capillary pressure. In anæmia and cachexia this pressure is low, and therefore there is but slight albuminuria.

This being so, it would seem difficult to explain why with albuminuria the amount of urine passed varies inversely as the intensity of the albuminuria, *i. e.* if there is much albumen present, the quantity of urine is diminished. Hence in acute and chronic parenchymatous nephritis there is a scanty flow of urine. How are we to account for this? It is curious that with "interstitial nephritis" there is generally but slight or inappreciable albuminuria, yet the amount of urine voided is considerably increased; and it is interesting that when a large white kidney gradually contracts, so as to become a contracting white kidney, the amount of urine passed gradually increases, the albuminuria gradually diminishes, and the œdema gradually

disappears. We find thus, that there is a close correlation, pathologically, between albuminuria and œdema, and that is what we have been contending for all along. With the progressing fibrosis, that is, as the kidney becomes more and more indurated, the amount of urine passed increases, and the heart *visibly* hypertrophies. We may therefore assume that the increased flow of urine depends, amongst other things, on the cardiac hypertrophy, in association with which we generally find hypertrophy of the tunica media of the arterioles and arterio-capillary fibrosis. The general blood-pressure, therefore, is considerably raised, and on this, it would seem, the increased flow of urine depends. With the advancing induration or contraction, many of the Malpighian bodies become encircled by fibrous tissue, and the glomeruli gradually become impervious, so that filtration or diffusion can no longer take place through them. How then can urine be secreted at all? Simply because islets of renal tissue remain unaffected, or even undergo hypertrophy. The fact that compensation is at all possible, implies that under ordinary conditions the kidney is not worked to the utmost, and therefore that it is possible that with a certain amount of functionally active renal tissue, and a high general blood-pressure, an increased amount of urine may be passed.

When a large white kidney contracts, fibrous rings also appear around many of the Malpighian bodies, and the glomerular membrane gradually becomes impervious, and hence the albuminuria gradually disappears. The fact that urine is voided at all means that some glomeruli have been left intact. The heart hypertrophies visibly, the general blood-pressure rises, and the amount of urine passed becomes increased, and concurrently with this increase, as we should expect, the œdema diminishes. It would seem, therefore, that there is this inverse relation between œdema and secretion of urine: (a) if much fluid transudes through the capillaries into the tissues, less fluid passes through the glomerular membrane; (b) if much fluid passes through the glomerular membrane, less fluid passes through the peripheral capillaries; (c) if little fluid passes through the peripheral capillaries, much urine will be secreted, and (d) if little fluid transudes through the glomerular membrane, much fluid will pass out through the capillaries elsewhere.

Since in cardiac disease with venous engorgement there is considerable œdema, we must expect a diminished transudation through the glomerular membrane; but in addition we have a low general blood-pressure, and therefore also a slow renal circulation. Hence it follows that with this form of albuminuria we must have scanty secretion of urine.

With acute nephritis there is no rise, or only a slight compensatory rise, of the general blood pressure, the renal capillaries are distended, but the amount of blood flowing through the kidney, which conditions the secretion of urine, is not increased, but diminished rather and retarded

on account of the inflammatory process, which, as is well known, often produces a general œdema of the interstitial tissues in the kidney. In all acute inflammations of some duration, the initial increased velocity of the blood-stream is followed by a gradual slowing down of the current, which may end in complete stasis. There is, therefore, ample reason why in acute nephritis there should be a diminished flow of urine, and this in its turn favours the intensity of the œdema in other parts of the body.

With a "chronic parenchymatous nephritis" we also have no marked rise of the general blood-pressure until the fibrosis appears, and again, no increased or accelerated flow of blood through the kidney, on account of the resistance offered to the blood-stream by the changes in the interstitial tissue which show themselves in the form of œdema and cellular infiltration. We find, therefore, with acute nephritis, "chronic parenchymatous nephritis," and cardiac kidney, all the factors necessary to explain a diminished secretion of urine, and all the factors necessary to explain the copious albuminuria. It must simply be remembered that the increased flow of urine and the volume of the transuded or exuded fluid do not depend on an increased glomerular blood-pressure, but on an increased and accelerated flow of blood through the kidney. Similar conditions we find in œdema: venous obstruction or inflammation, if the arterial blood supply be inadequate or insufficient, will not and cannot produce œdema.

The analogy between albuminuria and œdema is, therefore, fairly complete. The only difference is this, that the effusion into the tissues or serous spaces remains stagnant, because it is not absorbed by the lymphatics: diminished absorption, although an important element in œdema or dropsy, plays no part in albuminuria, because the capsular spaces into which the serous effusion passes are not closed cavities, but most efficiently drained by the uriniferous tubules.

In conclusion, I must state that these notes do not claim that perfection which I would desire, but are merely an attempt at explaining a few points which have always presented great difficulties to me whenever I have thought over the matter under discussion, or have studied Cohnheim, many of whose ideas will be found in these lines. I only hope that where I have leaned upon Cohnheim I have not misinterpreted him, and also that I have avoided obvious errors, whether clinical or physiological. I intend to return to this question in a subsequent number of our JOURNAL. In my next article, however, I shall discuss in a similar, cursory manner the meaning and pathology of "Chronic Inflammation."

WANT of space has compelled us to hold over one or two contributions. They will, however, appear in the October number.

A Case of Wiring for Fractured Olecranon in a Man aged 69.

By F. C. WALLIS, M.D., F.R.C.S.,

Assistant Surgeon to Charing Cross Hospital; Surgeon to the Metropolitan Hospital.

BD—æt. 69, was admitted into the Metropolitan Hospital on April 27th suffering from a fracture of the left olecranon, and also a transverse fracture of the right ulna. These injuries had been caused by a cart knocking the man down, and the horse trampling on him.

The fracture of the olecranon was oblique and comminuted; there was considerable effusion into the joint, and the whole arm was much bruised. It was not possible to keep the fragments in apposition by any splint.

The patient gave a healthy history, he was not a drinker, and the urine was normal.

On April 28th the man was taken to the theatre and operated on, under G.I.C. A long incision of five inches was made over the olecranon, and the fractured ends thoroughly exposed; the fracture, of course, had opened into the joint, which was filled with clot. The surrounding tissues were infiltrated with blood.

The joint was well washed with 1:3000 perchloride solution, and all blood clot removed; then the ends of the bone were brought together by some medium-sized wire, and a small piece of loose bone was removed altogether. The fractured ends came well together, and when the wire was screwed up the arm could be flexed and extended without any alteration in the apposition of the fragments.

The fascia over the muscles was brought together by a few fishing-gut sutures, the wound swabbed out with 1:20 carbolic, and then the skin united by a continuous horsehair suture. The wound was sealed up with collodion and gauze.

On May 2nd, four days after the operation, as the wound was quite free from pain, passive movement was commenced. May 8th, all stitches were removed, and the patient was allowed to use his arm for feeding purposes, &c. He left the hospital shortly after this, but has been seen several times since, and the condition of his joint and wired fracture is as good as it could possibly be.

Remarks by Mr. F. C. WALLIS.—This case is one of parallel interest to that which I published in the JOURNAL of last December, where the patella was wired in a man of 70. There are one or two points which make this case more than usually interesting. In the first place the man had broken both arms, and was perfectly helpless. If he had been treated by splints he would have continued helpless for weeks; as it was, passive movement began four days after the operation, within ten days he was using his arm for feeding, and long before the opposite arm was out of splints he had perfect use of the left arm. The condition of the joint is another point of interest. Before the operation it was much distended and tender; at the operation all the surrounding tissues were infiltrated with blood, and the joint was full of blood-clot. The free incision relieved the engorged condition of the tissues, and the joint was washed clean of all clot. After the operation the joint was painless and entirely free from any swelling or synovitis. A point of minor interest was the condition of the skin, which, on the outer side of the arm, had been badly "gravel-rashed." There was some inflammation and superficial suppuration from this, but the incised wound was closed up with collodion and gauze, and so perfectly shut off by this method that its aseptic course was in no way

interfered with. Finally, the age of this man, and of the other case already referred to, go to confirm a fact which is not sufficiently recognised, viz. that old people otherwise healthy bear operations, and recover from them, exceedingly well.

The Hospital Dietary.

By J. W. W. STEPHENS,
Treasurer's Student.

BV observation and experiment, certain standard diets have been compiled which will preserve an average man in health under varying conditions of employment. The experimental method is this: "A healthy individual is selected, and the exact quantity of food stuffs is estimated by experiment, requisite to preserve an equilibrium between the amount of carbon and nitrogen taken into the body, and that discharged from it." Or observation may be made of "the amount of food-stuffs present in the daily food used by communities of men, that used in families, by labourers of a class, and in ships."

I have taken the hospital dietary as an example of the latter method, analysed the amount of food stuffs contained in the various articles of diet, and compared them with the standard diets of health of different observers. I omit entirely, as foreign to my object, any consideration of how this diet is modified in particular diseases, and especially in particular patients, but consider that this analysis may show concisely what amount of protein, carbohydrate, and fat each patient is consuming, and may give a clear indication for the grounds of change in quantity of any constituent of the diet. I may illustrate this view by an example.*

König gives the following average composition of cow's milk and human milk—grammes in 100 cubic centimetres:

	P.	F.	C.	Ratio	N.
Cow's	3.55	3.69	4.88		$\frac{1}{2.47}$
Human	2.29	3.78	6.21		$\frac{1}{4.3}$

—i. e. cow's milk has excess of proteid and a deficiency of carbohydrate. A simple way of reducing this to the standard of human milk is to separate the cream from a pint of milk, then the casein is separated from one half the skimmed milk by means of rennet; the whey, the other half, and the original cream are now added together. The change that has been effected is to reduce the proteid to about 2 per cent.; thus:

$$\frac{\text{Casein } 3.02 + \text{'53 Albumen} = 2.04}{2}$$

* P. is used to signify Proteid; F. Fat; C. Carbohydrate; N. nitrogenous; n.N. non-nitrogenous.

Milk treated in this way has an average composition :

	P.	F.	C.	N.	$\frac{N}{n.N.} = \frac{1}{47}$
Artificial Milk	2	4.5	5		

We thus get a numerical expression of the advantage of human milk over cow's milk, and of artificial milk over the latter.

To revert to standard diets in health. Molcschott's standard for a man weighing 150 lbs., and doing medium work, may be taken as a good average diet. The quantities are measured in ounces, water free.

	P.	F.	C.	N.	$\frac{N}{n.N.} = \frac{1}{37}$	F.	$\frac{F}{C} = \frac{1}{4.8}$
	4.6	2.96	14.20				

The "standard" diets of a young doctor and a workman, as determined by Forster, are—

	P.	F.	C.	Ratio	$\frac{N}{n.N.} = \frac{1}{4}$	$\frac{F}{C} = \frac{1}{3.2}$
Workman	132	81	458			
Young Doctor	131	95	332			

The quantities are given in grammes of dry food-stuff.

Further, the ratios $\frac{F}{C}$ are 1 : 5.6 and 1 : 3.4 respectively.

These figures indicate that the standard diet for the young doctor is rich in proteid and in fat, as compared with the total non-nitrogenous matter and carbohydrate respectively.

The data I have made use of in analysing the hospital dietary have been taken from the table in Stevenson and Murphy's 'Hygiene,' p. 417, vol. i.

IN 100 PARTS.

	Water.	P.	F.	C.	Salt.
Butter	6	3.3	88	—	2.7
Meat	72.5	21	5.5	—	1
Potato	74.98	2.08	1.5	21.01	1.09
Vegetable	91	1.6	5	5.8	7
Pudding (Rice)	13	8	1.0	76.5	1.0
Milk	87.5	3.4	3.0	4.8	7
Bread	12.81	12.06	1.36	71.83	.99
Fish	78	18.1	2.9	—	1.0

FULL DIET (MEN).

	Oz.	Water.	P.	F.	C.	Salts.
Butter	5	.03	.016	.44	—	.0135
Butter	5	.03	.016	.44	—	.0135
Meat	6	4.35	1.26	.33	—	.06
Potato	6	4.5	1.25	.009	1.26	.06
Vegetable	4	3.64	.072	.02	.232	.028
Pudding	4	.52	.032	.04	3.06	.04
Milk	20	17.5	.68	.72	.96	.14
Bread	18	2.3	2.171	.245	12.93	.018
Total	59	—	4.37	2.24	18.44	.31
Meat Diet						
Fish	10	7.8	1.81	.29	—	.1
Total	63	40.55	4.92	2.20	18.44	.33
Fish Diet						
Diet						
Potato	8	6	1.66	.01	1.68	.08

FULL DIET (WOMEN).

	Oz.	H ₂ O.	P.	F.	C.	Salts.
Butter	5	.03	.016	.44	—	.0135
Butter	5	.03	.016	.44	—	.0135
Meat	6	4.5	1.24	.066	1.26	.066
Potato	6	4.5	1.24	.066	1.26	.066
Vegetable	3	2.73	.054	.015	.174	.021
Pudding	4	.52	.032	.04	3.06	.04
Milk	20	17.5	.68	.72	.96	.14
Bread	12	1.53	1.446	.163	8.62	.012
Total	50	—	3.208	2.044	14.07	.368
						$\frac{N}{n.N.} = \frac{1}{5.02}$; $\frac{F}{C} = \frac{1}{6.7}$

CONVALESCENT DIET.

	Oz.	H ₂ O.	P.	F.	C.	Salts.
Butter	5	.03	.016	.44	—	.0135
Butter	5	.03	.016	.44	—	.0135
Meat	4	2.9	.84	.22	—	.06
Potato	6	4.5	1.24	.066	1.26	.066
Pudding	8	1.04	.064	.08	6.12	.08
Milk	40	35	1.36	1.44	1.02	.28
♂ Bread	14	1.8	1.68	.19	10.95	.014
♀ Bread	12	1.53	1.446	.163	8.62	.012
Total ♂	73	45.3	4.10	2.81	19.35	.589
Total ♀	71	45.03	3.866	2.79	17.92	.534
						$\frac{N}{n.N.} = \frac{1}{5.4}$; $\frac{F}{C} = \frac{1}{6.9}$

MILK DIET.

	Oz.	H ₂ O.	P.	F.	C.	Salts.
Butter	5	.03	.016	.44	—	.0135
Butter	5	.03	.016	.44	—	.0135
Pudding	8	1.04	.064	.08	6.12	.08
Milk	40	35	1.36	1.44	1.02	.28
♂ Bread	14	1.8	1.68	.19	10.95	.014
♀ Bread	12	1.53	1.446	.163	8.62	.012
Total ♂	63	37.9	3.136	2.59	18.09	.401
Total ♀	61	37.03	2.902	2.503	16.06	.399
						$\frac{N}{n.N.} = \frac{1}{6.6}$; $\frac{F}{C} = \frac{1}{6.9}$

SPOON DIET.

	Oz.	H ₂ O.	P.	F.	C.	Salts.
Milk	40	35	1.36	1.44	1.02	.28
						$\frac{N}{n.N.} = \frac{1}{2.4}$; $\frac{F}{C} = \frac{1}{1.3}$

If we now tabulate these ratios, we have—

	$\frac{N}{n.N.}$	$\frac{F}{C}$
1. Full Diet (man)	1 : 4.7	1 : 8.2
2. Full Diet (woman)	1 : 5.2	1 : 6.7
3. Convalescent (man)	1 : 5.4	1 : 6.9
4. Convalescent (woman)	1 : 5.3	1 : 6.4
5. Milk Diet (man)	1 : 6.6	1 : 6.9
6. Milk Diet (woman)	1 : 6.6	1 : 6.5
7. Spoon Diet	1 : 2.4	1 : 1.3

Taking a general survey, we see that in this dietary non-nitrogenous food is present in greater proportion than is found in the standard diets of those in health, and the figures clearly show that the excess is in carbohydrate diet. Spoon diet is peculiar in that the proportion of proteid is in excess of that of a healthy individual; the reason of this lies in the fact that it is a diet composed solely of cow's milk.

I propose, before considering this dietary more closely, to compare it in a subsequent paper with other diets of the sick in use elsewhere, so that the basis for any criticism may be founded on a wider survey of facts.

3 Contribution to the Rational Treatment of Phthisis in its earlier stages.*

By OTTO L. HOLST, L.R.C.P.Lond., M.R.C.S.Eng.



It must be admitted that anything that is at all likely to improve the chances of consumptive patients, or that will prevent consumption from developing in individuals coming from a phthisical stock and showing all the characteristics of a predisposed condition, deserves to be discussed, if nothing more.

It is beyond controversy that the tubercle bacillus most commonly gains access into the human body through the lungs, and it is believed that only in those cases who offer a suitable soil does the bacillus thrive. A suitable soil, I take it, means that the lungs are in a state of mal-nutrition, from whatever cause. In consumptive patients, and in those predisposed to the disease, the chest is almost invariably flat and contracted, and moves badly in respiration; the effect of which is that the circulation in the lungs is carried on sluggishly, and the lung tissue in consequence becomes ill-nourished.

We know that a healthy individual does not use nearly the whole of his lungs for ordinary breathing purposes; how much less of the lungs would be used by a flat chested person!

The part which is not used necessarily requires less blood than the active lung, and cannot, therefore, be in such good condition. Hence the liability of the apices to suffer.† If a large area of the lungs remain thus unused, or very little used, it will constitute just the kind of soil required by the bacillus to thrive in.

If the lungs could be brought to such a state of health as to be able to withstand the attack of the bacilli, these latter would be prevented from gaining a footing.

What more reasonable, then, than to employ means to widen and enlarge the chest cavity? Because then the lungs will expand as well, and their movements will become more free. As a result of the increased respiratory activity thus caused, more blood will flow to the part, the blood will be better aerated, more blood-cells will pass through the lungs, and so an advantage will be given to the phagocytes to resist the attack of the bacilli.

In order to obtain this result, not only should patients be placed in the most favourable conditions hygienically, but they would require special movements—or, as they may be termed, "therapeutic exercises"—to widen their narrow chests, and to enable them to give their lungs proper and efficient ventilation.

The cases that are likely to benefit by a course of therapeutic exercises are those who by their family history and their physical development show a predisposition to the disease, and those actually in the first stage of the disease.

Hæmoptysis in a slight degree need not be an obstacle to the treatment. It is a mistake to think that these exercises will cause hæmoptysis; and in support of this contention I will quote an extract from a leading article in the *Lancet* (August 31st, 1895, p. 535): "That the cautious and judicious practice of various forms of respiratory gymnastics tends to hæmorrhage, we think, a mistake; for experience shows that in a large proportion of cases pulmonary hæmorrhage does not follow upon exertion, and that it is comparatively frequent at night and in the early morning, when the patient has been for some time at rest."

I venture to think that the main cause of hæmoptysis at night in the early stage of phthisis—thus setting aside cases of pulmonary aneurysms—lies in an obstruction to the free flow of blood through the changed and diseased lung tissue, which in its turn leads to congestion and engorgement of the pulmonary capillaries. It is as if in a system of elastic water-pipes, with an obstruction in their course, water was being continually pumped; a stage would sooner or later be arrived at when the pipe would give way. Anything that removes the obstruction by creating a call for blood elsewhere in the body would prove exceedingly beneficial. Hæmoptysis is nature's effort to remove the obstruction, but this is a remedy with two edges. A better method is to give gentle passive and active exercises to arms, legs, and abdomen, in order to attract blood away from the centre to the periphery. "Thi stimulus, ibi affluxus." At night and during absolute rest, no call being made on the "fluid of life" to the voluntary muscular system, the blood collects, relatively speaking,

* A Paper read before the Eastbourne Medical Society.

† In support of this theory Dr. Fagge quotes the names of Dr. Hamilton (*Practitioner*, 1880) and Dr. Rindfleisch (*Ziemssen's Handbuch*).

in the internal organs. It is quite plain, however, that no exercises demanding an exertion must be given, for by stimulating the heart to increased action one would—to use the simile of the water-pipes—increase the power of the pump in a greater measure than the obstruction to the flow could be relieved; and hence the very thing to be avoided would be brought about.

I will here describe as briefly as possible a few of these therapeutic exercises, beginning with the weaker ones.

The important points to remember in them all are—
(a) The attitude of the patient, i.e. the chest well in evidence.
(b) That the exercises must be carried out slowly and with due regard to the state of the patient.

(c) The insistence on frequent and deep inspirations and slow expirations.

I. *Flexion and Extension of the Arms.*—The patient lying flat on a high couch, and the movements being resisted by the operator. The elbows must move in a plane with the couch, so as to obtain a good expansion of the chest.

II. *Extension of the Trunk.* The patient sitting on a low stool, leaning forward, and the physician resisting the straightening of the body by applying his hands on the shoulder-blades of the patient.

III. *Flexion of the Lungs.*—The patient in a semi-reclining position. The movement is performed in the following way:—The operator stands in front of the patient, places both hands, one under each of the patient's clavicles; the patient is told to take a deep breath, and during the expiration a vibratory movement is given by the operator's hands as long as the expiration lasts, and a little longer. Then the hands are moved lower down on the chest and the same performance gone through, till the operator's hands have covered consecutively the whole surface of the chest, front and back.

It tends to give tone to the muscular tissue of the bronchi as well as to the external muscles of respiration; it also promotes expectoration. It is, however, useful to clear the air-passages of mucus, and to impart tone to the bronchial walls.

IV. *Opening and Closing the Arms* (held stiff and extended) against the resistance of the operator.—The patient sitting leaning forward on a low stool. The opening of the arms is performed during a deep inspiration, the closing during a prolonged expiration.

V. *Hacking and Clapping over the Lungs.*—The patient in a prone reclining position. This movement is performed very carefully, to hæmoptysis, and should at all times be performed very carefully. It tends to give tone to the muscular tissue of the bronchi as well as to the external muscles of respiration; it also promotes expectoration.

VI. *Lifting of the Shoulders.*—The patient sitting erect on a low stool, the operator stands behind with one hand in front of and grasping each shoulder of the patient. As the patient takes a deep inspiration the operator lifts the shoulders, and pulls them at the same time somewhat backwards; he lets them down gradually as the patient expires slowly. The patient must not allow himself to be lifted off the stool, and there should be a firm cushion between the operator's knee and the patient's back, so as to enable the former to give the chest a good expansion.

STRONGER EXERCISES.

I. *Flexion and Extension of the Arms.*—The patient sitting erect on a low stool, the operator resists both movements. A cushion is placed between the operator's knee and the patient's back, and the elbows are kept well back during the movements up and down, so as to ensure a good expansion of the chest.

II. *Extension of the Trunk.*—The patient standing leaning over the end of a couch, a firm cushion intervening. The operator resists the straightening of the body with his hands on the shoulder-blades of the patient.

III. *Pulling forward of the Chest.*—The patient stands on tiptoe with his back to a pole provided with cross-bars, and grasps one of them high up with both hands. The operator stands in front of the patient, applies both hands on the shoulder-blades of the patient, and pulls him forward, whilst the patient takes a deep inspiration; he then lets the patient go slowly back during expiration.

These are the simplest forms of therapeutic exercises, but they will, I think, serve my purpose sufficiently well to illustrate the kind of movements that should be used.

The effect of the treatment is beneficial not only to the lungs; it strengthens and invigorates the heart as well. When dyspeptic symptoms are present, the treatment should be directed to the digestive organs in the form of gentle kneading to the stomach and bowels. This is especially useful where any tendency to vomiting exists.

Dr. Frederick Taylor, in his book on *Medicine*, in discussing the treatment of phthisis, says, "Our chief reliance must be on the improvement of the body and its tissues in every possible way."*

* The italics are mine.

that it may be enabled to resist the inroads of the disease; or, rather, that the tissues may become less fitted as a soil for the bacillus, and less readily excited to inflammation in its different forms."

I think that therapeutic exercises, together with good and suitable food and plenty of fresh and pure air, go further to fulfil these desiderata than any other treatment. The exercises may be given whilst the patient is wearing an ori-nasal respirator containing creosote, guaiacol, eucalyptol, or any other volatile agent that may be desired.

It may be thought that ordinary gymnastics or dumb-bell exercises ought to answer the purpose perfectly well without resorting to any special treatment, but this idea will be abandoned on further consideration. It is not healthy individuals with whom we have to deal, but delicate, unhealthy specimens who require careful and individual attention, such as cannot be given in a gymnasium, where the patient forms but a unit in a class.

On Three Cases of Tetanus, treated at the Taunton and Somerset Hospital.

Reported by W. H. MAIDLOW, F.R.C.S., late Resident Medical Officer.



WHEN a disease is rare, usually fatal, but maintained to be curable by a specific treatment, I consider there should be no great hesitation in reporting it, so, having permission, I hasten to report three cases of tetanus in the Hospital JOURNAL—a most appropriate medium, indeed, for it is the journal of the Hospital from whence at present the best English criticism of antitetanotoxin has emanated. The following are brief notes of the cases:

CASE 1.—J. S.—, *et. 46*, labourer, admitted October 20th, 1895, in alcoholic state with history of having been kicked in face by a horse two hours before. He had lacerated wounds about the nose and cheek, which were treated in the usual way, and except for difficulty in keeping the nostrils clean, they all did quite well. October 30th, well enough to walk about ward. November 3rd, jaws "felt stiff," but only noticeable thing was a much swollen face. November 5th, marked trismus 6th, two severe spasms.* 8th to 10th, more spasms, with trismus and cervical rigidity in intervals, great dysphagia; fed by nutrient enemata containing also chloral, bromide, and opium, which treatment was continued throughout, and each spasm was controlled by chloroform. 13th, worse in every way. antitetanotoxin gr. xxx (from Brit. Institute) injected into back. After this spasms became less severe and less frequent, so that no more chloroform was given. 14th, delirious and pulse failing, attacks very frequent, but milder; gr. xv antitetanotoxin given. 15th, conscious but very despondent; most of body rigid. 16th, slightly better, and able to drink; gr. x antitetanotoxin, but in a dying state all night. 17th, nasal tube passed for feeding in hope of keeping up strength. Death suddenly during its passage. P.M.—Fatty liver; no milk had passed into air passages, but into stomach.

CASE 2.—J. S.—, *et. 24*, waggoner, admitted in alcoholic state September 6th, 1895, with lacerated wound of palm and compound comminuted fracture of right leg at lower third. Three hours after infliction leg amputated at "seat of election" by lateral flaps through apparently sound tissues, and palmar wound carefully dressed after ligature of ulnar in two places. September 10th, leg dressed; signs of traumatic gangrene. This remained local, and in a few days line of demarcation appeared. The hand wound did well, but at onset of symptoms it was kept soaked in 1:2000 solution of perchloride of mercury, whilst the stump was treated with irrigation of same fluid, sloughs being daily cut away. September 17th, trismus. 18th, risus and cervical rigidity; gr. x antitoxin (Brit. Inst., three months old) injected into back. 19th, spasms on deglutition; gr. xxx Tizzoni's antitoxin, nutrient enemata, and nasal feeding under chloroform

* The word "spasm" used is meant to connote attacks of convulsions with the well-known dramatic accompaniments of blueness, opisthotonos, and distress in this disease.

once daily. 20th, much worse, at least sixteen spasms, and very despondent; in intervals persistence of risus and opisthotonos; temperature 103°; a vesico-papular eruption noted; gr. xxi antitetanotoxin injected. 21st, gr. xix, but much worse in every way, but could swallow and open his jaws in the evening. He became unconscious during the night, and died after a series of convulsions. No p.m. was made.

CASE 3.—E. H.—, *et. 22*, domestic servant, admitted May 27th, 1896, with history that on May 12th (fifteen days before) she had run a rusty nail into "pulp" of right ring finger, except for local pain, remained quite well till May 24th, when she noticed rigidity of jaws. May 26th, painful and stiff neck. She was a well nourished, rather obtuse girl, having on the palmar surface of terminal phalanx of finger an unhealthy-looking wound, at the bottom of which was exposed the flexor tendon; no lymphangitis or enlarged glands. Well marked risus and cervical rigidity. Finger amputated at metacarpophalangeal joint, where the part looked quite healthy, but for precaution the stump was kept soaked for a few minutes in 1:1000 Hyd. Perchlor.; it subsequently did well. Put on mixture of chloral, bromide, cannabis indica, with occasional hypodermic injection of morphine. She was able to swallow fluids almost throughout, but was fed also by nutrient enemata. May 29th, during night nine minor spasms; there is great exaggeration of knee-jerks, no clonus; well under influence of narcotics. The + knee-jerks persisted for three weeks. 30th, four spasms during day, but never intense; expression typical; much pain in the neck and back, where muscles are very rigid; constipation very troublesome. 31st, bowels opened after calomel and Ol. Crotoni, but decidedly better, can open jaws quite three-quarters of an inch, no more spasms; gr. xxx Tizzoni's antitetanotoxin injected into back. June 1st, delirious all night, urine and faeces passed involuntarily, abdomen now rigid, but not tender; gr. x injected. June 2nd, risus nearly gone; gr. iv injected. 3rd, spasm last night and this morning; no more antitetanotoxin given from this date. From now till the 26th, record is one of daily improvement, muscular rigidity disappearing in the order of onset, the abdominal muscles remaining rigid, but not painful, till about July 6th. June 26th, after a few days' constipation, rise of temperature to 102°, and pain along saphenous vein of left leg, with painful right ankle; both knees flexed tightly. Narcotics, which had been diminished, increased again. 28th, swelling and tenderness of left wrist and both knee-joints; temperature 103°, and erythematous rash. Put on Sod. Salicylate, and she quickly improved. The condition was very suggestive of pyemia. No cardiac lesion. July 10th, beginning to walk about. Considered cured.

Remarks.—Space must be too short to allow of much analysis of these cases, but there are several important considerations that I should like to emphasise, and deductions to be made therefrom. It will be seen that 1 and 2 were acute cases, having a latent period of six and eight days respectively, with rapid onset of symptoms; whilst the third was more subacute, with latent period of fifteen days, and gradual onset of symptoms. Cases 1 and 2 were "bad subjects;" Case 3 a healthy domestic servant. In none could bacillus tetani be demonstrated. Cases 1 and 3 were treated with narcotics; Case 2 with the antitoxin only. As regards the antitoxin, in Case 1 the spasms did seem less severe if not much less frequent, Case 2 seemed in nowise improved, whilst Case 3 was recovering before its use; and, in fact, nothing but a very sudden improvement could have shown its value. As a matter of fact, nothing pointing to its value here could be seen, and to Mr. Blagden, my colleague, who looked after her very carefully during my absence, she always seemed delirious after its use. In fact, she was one of the 30 or 40 per cent. of chronic or subacute cases that recover *vi naturæ*, helped by narcotics and proper nourishment. In all cases, gr. x of either antitoxin was dissolved in ʒj boiled distilled water, and injected as cleanly as possible into the lumbar region,

and seemed to cause no local disturbance or eruption. It is important, I think, to satisfy oneself that there is not an antitetanotoxæmia before using this, to my mind, at present *sub judice* remedy as a prophylactic. As regards some other clinical points, both the two fatal cases could open their jaws and swallow twenty-four hours before death. This must not, then, be looked upon necessarily as a good omen, but a sign perhaps of exhaustion; whilst in the cured case the rigidity disappeared in the order of its onset apart from exhaustion. I am told that if a horse with tetanus has his constipation relieved he will recover, which probably means he has his bowels moved because he is recovering; rigid abdomens must account for some of the constipation, but remembering what may happen from constipation and what from purgation, purgatives must be important agents in this infective disease. I find all the cases of recovery here—and tetanus seems comparatively common in the West of England—are those that have been kept under morphine. From these few considerations—

1. I am sceptical of the value of antitetanotoxin, although I do not think it does harm.
2. If it be used, other agents must also be used—drugs such as chloral, bromide, and cannabis indica, and especially morphine.
3. The strength must be supported with alcohol and nutrient enemata, with at least one good nasal feeding daily, under chloroform if there is any excitation of spasm by its use.
4. For the spasms chloroform should be given.
5. Keep bowels open, and tac patient in a dark room away from the noise of the ward.
6. Lastly, but not leastly, and it is almost insulting, I fear, to mention it—nerve section, nerve stretching, are so much fetish; if in doubt, amputate and excise, and sterilise. *Servare modum, sinemque tenere, naturamque sequi*—"Lucan." lib. ii. v. 381.

Notes.

As we anticipated, the difficulty of adjusting the opposition to the University of London Commission Bill proved too great to be overcome in time for the Bill to pass in the last session of Parliament. We must now rest content to wait till next year, and live in hope that the business of Parliament may not be too great then to enable this urgently needed reform to become a fact.

At the Competition for the Army Medical Service in August we hear that twenty-six candidates presented themselves for twenty-five vacancies, but that only thirteen were reported by the examiners as obtaining the qualifying marks! This is a poor record.

In the Competition for the Indian Medical Service three

Bart's men presented themselves, and all were successful. Mr. J. M. Woolley was second with 2988 marks—only 17 marks behind the first man; G. A. F. Sealy was seventh with 2546 marks, and J. H. Hugo was eighth with 2526 marks.

The examination for the Entrance Scholarships in Science and the Jeaffreson and Preliminary Scientific Exhibitions begins on September 23rd next.

MR. H. J. WALTON, whose success at Netley we recorded last month, goes to the Bengal Medical Service, as also does Mr. J. S. Stevenson. Mr. F. A. Smith goes to Bombay, and Mr. W. G. Richards to Madras.

DR. C. R. STEVENS, of the Bengal Medical Service, has been promoted to be Surgeon-Captain as from July 29th last. Mr. T. II. Foulkes, of Madras, has also been promoted to be Surgeon-Captain.

In our announcement in the last number of the appointments of officers in the Royal College of Physicians, we inadvertently omitted to mention the appointment of Dr. Church to the office of Senior Censor. The Senior Censor is elected separately from the other censors, and is the highest officer in the College after the President.

DR. CLAYE SHAW will begin his course of lectures on Mental Physiology for the M.D. and M.S. London, on Wednesday, October 7th, at 11 a.m., in the Medical Theatre. The Clinical Lectures at Banstead will begin on Monday, October 12th, at 11.30. These lectures are free to all Bart's men, and Students of other Schools can attend on payment of a fee of £3 3s.

SURGEON-LIEUTENANT COLONEL RANKING is taking an active part in the formation of a Pasteur Institute in India.

SURGEON-CAPTAIN F. O'KINEALY, who has been on tour with the Lieutenant-Governor of Bengal, has returned to his appointment as Resident Surgeon to the General Hospital, Calcutta.

SURGEON-CAPTAINS BIRD and C. R. STEVENS have been appointed Resident Surgeons to the Medical College Hospital, Calcutta. The latter is appointed to the Eden Hospital for Women and Children.

SURGEON-CAPTAIN PEARSE is Staff Surgeon to the troops in Fort William. The services of Surgeon-Captain Oldham have been temporarily placed at the disposal of the Jail Department.

WE REGRET to announce the death at Murree of an old Bart's man, Surgeon-Captain Barber, M.B. Cambridge, of enteric fever.

Bentley Prize (Surgical).—T. J. Horder.

Hickens Prize.—F. R. Brooks.

Wix Prize.—(Not awarded.)

Harvey Prize.—F. C. Borrow.

2. W. S. Danks.

3. L. A. Walker.

Sir George Burrows Prize.—T. J. Horder.

Skyner Prize.—(Not awarded.)

Practical Anatomy, Junior.

Treasurer's Prize.—A. E. J. Lister.

2. A. T. Compton.

3. C. A. S. Ridout.

4. R. H. R. Whitaker.

5. G. M. Seagrove.

6. J. S. Williamson.

7. [C. Marshall. } $\mathcal{A}q.$

[A. T. Pridham. }

9. A. R. Tweedie.

10. A. H. John.

Practical Anatomy, Senior.

Foster Prize.—H. Burrows.

2. F. C. Borrow.

3. S. R. Scott.

4. C. S. Frost.

5. W. H. Leonard.

6. H. S. Thomas.

7. W. S. Danks.

8. T. B. Haig.

Shuter Scholarship.—F. A. Rose.

Junior Scholarships.—R. H. Paramore.

1. A. R. Tweedie.

2. [J. S. Williamson. } $\mathcal{A}q.$

Junior Scholarship in Chemistry (1895).—

1. L. A. Walker.

2. R. Walker.

Correspondence.

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

CARBUNCLES AND PLAGUES.

Sir,—In reply to Mr. L. Brown's question as to the reliability of my statement that in the ancient plagues, buboes and carbuncles were identical, I should, perhaps, in my paper, have added the word "probably;" my reason for so doing being, that in several cases of true plague which I met with in the far East, although there certainly were examples of true bubo amongst them, still the majority of the skin and subcutaneous lesions which were present in these cases partook more of the nature of carbuncle, both by their position (back and chest) and their appearance. Since, however, looking up some of the authorities on plague, I confess that the frequency of the one or other seems to vary in different epidemics. Of course my statement as to what took place in the 16th and 17th centuries is, like the statements of others relating to the same period, merely conjectural, and I was simply judging by analogy, comparing cases of which I had read with cases which I had seen.

Thanking you in anticipation for the insertion of this letter,

I am, faithfully yours,

R. MILBOURNE WEST,

M.R.C.S., L.R.C.P. Lond., Leicester.

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

OLD BART'S MEN IN INDIA.

Sir,—It may interest you to have one more proof that Bart.'s men once are Bart.'s men always, though they be separated from their *Alma mater* by continents and oceans, wide as the poles asunder.

The memory of the dull grey quadrangle still gladdens the heart of all her sons who have left their kindly mother's loving care.

When a few of them meet in foreign climes they rush into each other's arms, and say: (a) What news of Bart.'s? (b) Let us have a Bart.'s dinner.

Such a little gathering took place on August 24th at the United Service Club, in Calcutta, when six Bart.'s men met at dinner. There were present: Surg.-Lieut.-Col. Ranking, I.M.S., who presided, Surg.-Capt. F. O'Kinealy, I.M.S., Pearse, A.M.S., R. Bird, I.M.S., B. Oldham, I.M.S., C. R. Stevens, I.M.S. Surg.-Lieut. A. F. Stevens, I.M.S., who was unable to be present in the flesh, as he is recovering from an attack of enteric fever, was present in the spirit. We thought "Bart.'s," talked "Bart.'s," and drank "Bart.'s" and "Absent Friends."

The swing of the punkah, the gradually collapsing collar, and other Oriental attributes faded in oblivion, and once more we walked and talked in the old square, and listened to the pigeons splashing in the fountain, and to each other's reminiscences of the giants of the past, and of those who have succeeded them.

So the night passed, and in the small hours of the morning we parted only to repeat the same scenes in our dreams.—I am, etc.,

YOUR CALCUTTA CORRESPONDENT.

Calcutta, Sept. 1st, 1896.

New Productions.

EVER to the fore in their endeavour to minister to the comfort of the general practitioner, Messrs. Burroughs, Wellcome & Co. have brought out some new "soloids" containing the various antiseptics in common use. They are made of a different size and shape from the ordinary tablets for internal use, and all have a distinctive colour, so that there may be no risk of accidental poisoning. The distinctive colour is communicated to the liquid in which they are dissolved, so that it cannot be confused with any other solution in general use in the sick room.

We may add that the "soloids" are prepared in such a way that they dissolve in water with great readiness.

The soloid of carbolic acid contains 5 gr. of the chemical, and in addition to its use in the preparation of lotions, the soloid itself can be used in the treatment of foul ulcers with pure carbolic acid—the soloid being held in a small piece of cotton wool and gently rubbed over the surface. Other soloids are prepared containing respectively—Hydragr, Perchlor. gr. 1.75, making in four ounces of water a solution of 1 in 1000; Pot. Permang. gr. v, Zinci Chlor. gr. j, and Argent. Nit. gr. j.

Messrs. Burroughs, Wellcome & Co. have also sent us specimens of their tablets of Vinum Ipecacuanhæ, containing 5 minims. They are said not to undergo change in the same way that the liquid does when kept for any length of time. Tablets containing respectively 5 grs. of Piperazine, 1 gr. of Uranium nitrate, 3 gr. of Antipyrine with 1 gr. of Caffeine, 5 grs. of Lithia bitartrate, 4 gr. of Lithia citrate, and 5 gr. of Cerium oxalate, have also been recently placed on the market by the same makers.

The Lithia tablets are effervescent, and may be taken crushed in water as an effervescent draught, or simply placed on the tongue. In either case they constitute a convenient and agreeable way of taking the drug.

Marriages.

ARMIT—POHL.—On the 15th inst., at Godesberg, by Pastor Dr. Winter, Henry William Armit, M.R.C.S., L.R.C.P. Eng., younger son of William Armit, of 47, Wetherby Mansions, S.W., to Josephine Maria Gertrude, elder daughter of the late Herr Sanitätsrath Dr. Pohl, of Godesberg, Germany.

LEWIS JONES—VON PLATEN HALLERMUND.—August 18th, at Buenos Ayres, Henry Lewis Jones, M.D., L.R.C.P., of 9, Upper Wimpole Street, Cavendish Square, W., to Ctess. Marie Olive, eldest daughter of the late Cte. Jean Henri Platen Von Hallermund, of Stockholm.

FRASER—MORRIS.—On August 24th, at Parish Church, Sarn, Montgomeryshire, by Rev. D. D. Pierce, M.A., assisted by Rev. R. Gibbins, D.D., Forbes Fraser, of Tarporley, Cheshire, to Mary, only daughter of Edward Morris, of Sarn.

WILKIN—WALLER.—Sept. 9th, at Cherrylinnton Church, by the Rev. W. H. Cory, late Curate of Meldreth, Robert Hugh Wilkin, M.R.C.S., L.R.C.P., of Wickhambrook, Suffolk, to Fanny Louisa, eldest daughter of W. Mortlock Waller.

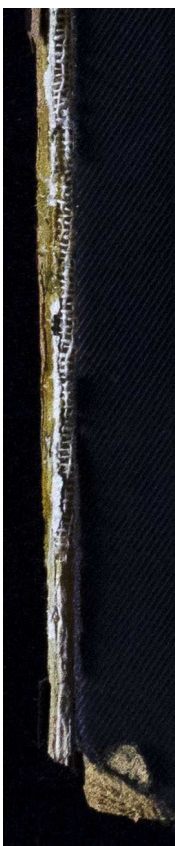
MANNERS-SMITH—BERTHON.—Sept. 10th, at St. Mary's, Bathwick, Bath, by the Rev. A. L. Stewart, Vicar of Aisholt, Alfred Egerton Manners-Smith, M.R.C.S., L.R.C.P., son of the late Deputy Surgeon-General Charles Manners-Smith, F.R.C.S., I.M.S., to Ellen Gwendda, daughter of the late Major-General J. F. Berthon, Bombay Staff Corps, and granddaughter of the late Very Rev. R. M. Bonnor, Dean of St. Asaph. Indian and Australian papers, please copy.

Death.

*BURN.—On May 14th, William Leopold, eldest son of W. Barnett Burn, M.D. Lond., aged 23.

* In the notice of Mr. Burn's death, which appeared in the July number, the name was unfortunately mis-spelt "Brown."

ACKNOWLEDGMENTS.—*Guy's Hospital Gazette, The Nursing Record, The Hospital, The Charity Record.*



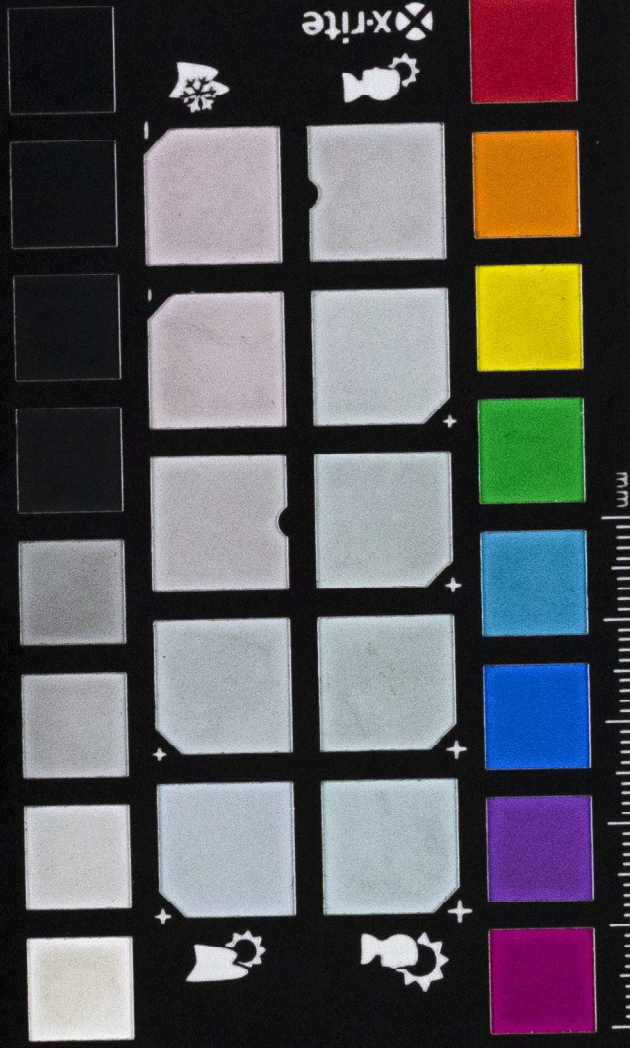


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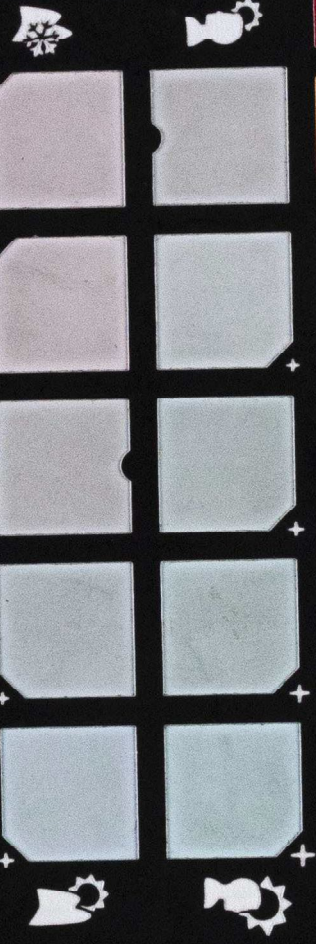
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