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- WALKER, KENNETH, M.B., F.R.C.S. "Trophosis in Malignant Growth of the Testicle." *Lancet*, December 21st, 1935.
- "Treatment of the Malignant Prostate." *British Medical Journal*, February, 1936.
- WARD, R. OGIER, D.S.O., M.Ch., F.R.C.S. "Tumours of the Bladder." *Post-Graduate Medical Journal*, November, 1935.
- WERRE, F. PARETS, M.D., F.R.C.P. "Idiopathic Striae Atrophice of Puberty." *Lancet*, December 14th, 1935.
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- "Inborn and Familial Tendency to the Development of Hepatic Cirrhosis." *Lancet*, February 9th, 1936.
- WEST, RANYARD, M.D., M.K.C.P., D.P.H. "Intravenous Curarine in the Treatment of Tetanus." *Lancet*, January 4th, 1936.
- WITTS, Prof. L. J., F.R.C.P. "Therapeutic Action of Iron." *Lancet*, January 4th, 1936.
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- WOODWARD, SIR STANLEY, C.M.G., C.B.E., M.D., F.R.C.P. (and MINDLING, J., M.D., M.R.C.P.). "Favourite Prescriptions, No. XIV. The Pharmacopœia of the Westminster Hospital." *Practitioner*, February, 1936.
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EXAMINATIONS, ETC.

Royal College of Physicians.

The following has been admitted a Member:

Jones, F. Avery.

CHANGES OF ADDRESS.

- AMSEER, M., Delmonden Manor, Hawkhurst, Kent. (Tel. Hawkhurst 2.)
- CROSS, E. W., 16, St. Ann's Court, Hove 2, Sussex. (Tel. Hove 3090.)
- FRANKLIN, A. W., 24, De Walden Street, W. 1. (Tel. Welbeck 4042.)
- HUGGINS, S. P., Hughenden, Salvington Hill, Worthing. (Tel. Swandean 568.)
- TABOE, A. C., Breachwood, 57, Clifford Road, New Barnet, Herts. (Tel. Barnet 4116.)
- TRACEY, H. A., 703, Carrington House, Hertford Street, W. 1.

APPOINTMENTS.

- NELSON, H. P., M.D., F.R.C.S., appointed Assistant Surgeon to the London Hospital.
- ROPER, R. D., M.B., B.Chir.(Cantab.), appointed Honorary Anaesthetist to Charing Cross Hospital.

BIRTHS.

- BACH.—On February 18th, 1936, at 20, Devonshire Place, W. 1, to Matine (née Thompson), wife of Francis Bach, M.D., of 49, Wimpole Street, W. 1—a son.
- McMENEMY.—On February 16th, 1936, at "Stonefield", Blackheath, to Robina and William McMenemy—a daughter.
- THROWER.—On February 10th, 1936, at 8, Belvidere, Weymouth, to Violet Beatrice (Betty), wife of William Rayner Thrower, M.D., M.R.C.P.—a son.
- WESTWOOD.—On February 17th, 1936, at Chesterton Terrace, Cirencester, Glos. to Gretta (née Evans), wife of Dr. Matthew Westwood—a son (David Matthew).

MARRIAGES.

- ENRIGHT—SHEPHERD.—On February 20th, 1936, William Enright, M.R.C.S. Eng., L.R.C.P.Lond., 143, Croydon Road, S.E. 20, to Jessie Gray, youngest daughter of the late Mr. and Mrs. T. A. Shepherd, of Ly-ee-Moon, S.E. 19.
- REECE—PETRIE.—On February 15th, 1936, at St. James's, Piccadilly, by the Ven. Archdeacon Lambert, Richard Harold Reece, M.A., M.R.C.S., L.R.C.P., elder son of the late Richard James Reece, C.B., M.A., M.D., to Janet Anderson Petrie, B.Sc., only daughter of Mr. and Mrs. John A. Petrie, Inveraven, Mearns Road, Clarkston, Glasgow.

DEATHS.

- BOSWELL.—On February 6th, 1936, at 11, York Avenue, East Sheen, S.W. 14, Alexander Boswell, M.D., aged 82.
- FAYELL.—On February 4th, 1936, suddenly, at Penberth, St. Buryan, Cornwall, Richard Vernon, the beloved husband of Alice Molyneux Fayell.
- GAYTON.—On February 18th, 1936, at Much Hadham, Herts, Dr. Francis Carteret Gayton, M.D., only surviving son of the late George Gayton, of Much Hadham, aged 81.
- PRUEN.—On February 10th, 1936, peacefully, after a long illness, Septimus Tristram Pruen, M.D., M.R.C.S., of 2, Lansdown Terrace, Cheltenham, aged 76.
- SMITH.—On February 15th, 1936, at Kirkby, Surtees Smith, M.R.C.S., L.R.C.P., elder son of the Rev. and Mrs. J. W. Smith, of Kirkby-in-Ashfield, Notts, aged 32.

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, E.C. 1.

The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, Mr. G. J. WILLIAMS, M.B.E., B.A., at the Hospital.

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St. Bartholomew's Hospital



JOURNAL.

"Æquamemento rebus in arduis
Serrare mentem."

—Horace, Book ii, Ode iii.

VOL. XLIII.—No. 7.]

APRIL 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Mon., April 13.	Easter Monday.
Tues., " 14.	Dr. Graham and Mr. Girling Ball on duty. Rugby Match v. Bristol. Away.
Fri., " 17.	Dr. Geoffrey Evans and Mr. Roberts on duty.
Tues., " 21.	Prof. Witts and Prof. Paterson Ross on duty.
Thurs., " 23.	Last day for receiving matter for the May issue of the Journal.
Fri., " 24.	Dr. Hinds Howell and Sir Charles Gordon-Watson on duty.
Tues., " 28.	Dr. Gow and Mr. Wilson on duty.
Fri., May 1.	Dr. Graham and Mr. Girling Ball on duty.
Tues., " 5.	Dr. Geoffrey Evans and Mr. Roberts on duty.
Fri., " 8.	Prof. Witts and Prof. Paterson Ross on duty.
Sat., " 9.	Hospital Sports.

EDITORIAL.

IT is with great regret that we announce Mr. Vick's resignation from his appointment as Warden of the College. When he was appointed in 1920 the Residential College was still in existence and, in fact, did not close until 1923. Since that time Mr. Vick has carried out the duties of the Warden in so far as the Medical College is concerned.

With his resignation one of the great traditional offices of the Hospital passes. Until 1923 the Residential College was an integral part of the Hospital and was under the control of the Treasurer and Almoners, to whom the Warden was responsible for the administration and discipline.

When the new Residential College opens—and it is an event we hope not far distant—the Warden will be entirely an officer of the Medical College and not of the Hospital. Mr. Vick, however, will remain as co-Treasurer of the Hospital.

During the sixteen years of his Wardenship Mr. Vick has been in touch with many successive generations of Bart.'s men, a great number of whom will remember him gratefully for his forbearance and personal interest, and deplore the fact that their successors will not have his help, as secretary of the Committee of Physicians and

Surgeons, which nominates the Resident Staff. Another function of the Warden, which concerns us personally, is that of Censor of the JOURNAL. And it is a credit both to him and to us that, in the whole sixteen years, there has never been a serious difference of opinion nor protest about matter published in the JOURNAL. We hope in our next issue to publish an article by him on the history of the Office of Warden, and are sorry to lose his services.

He is to be succeeded by Dr. C. F. Harris, who will hold the appointment of Warden and Sub-Dean of the Medical College and will live in the new Medical College.

We congratulate Sir George Newman, G.B.E., K.C.B., on the degree of Doctor of Laws, which was conferred on him on the occasion of the centenary celebrations of the University of London.

We also congratulate Dr. Mervyn Gordon, F.R.S., on the honour of the degree of LL.D., which has been offered to him by the senators of the University of Edinburgh.

As we go to Press, we read with regret of the death of Sir Archibald Garrod. An obituary notice will appear in our next issue.

The Eighth Annual Dinner of the 11th Decennial Club will be held at the Café Royal, Regent Street, on Friday, May 1st, at 7.15 for 7.30 p.m. Wilfrid F. Gaisford, M.D., M.K.C.P., will be in the Chair.

The Annual Dinner of the Tenth Decennial Contemporary Club will be held at the Café Royal, Regent Street, W. 1, on Friday, May 8th, with P. Jenner Verrall, Esq., F.R.C.S., in the Chair. Cards will shortly be sent to members, and any member not receiving one should communicate with Mr. Arnold W. Stott, 58, Harley Street, W. 1.

OBITUARY.

DR. F. F. GIBBENS.

THE death of Dr. F. E. Gibbens at his residence at Barking, Essex, on March 1st, will be received by his many friends with deep regret.

Dr. Gibbens entered St. Bartholomew's Hospital with himself in October, 1883.

He had a great personality and was certainly the most popular student of his year with all. It mattered not to him in which section they moved. He was always jovial, amusing and extremely courteous. He was no ordinary student, as was marked by obtaining the Kirkes Scholarship and Gold Medal in Medicine so much coveted by all students. This distinction was a very popular one, even with those who had the advantage of an academic career.

It was in some respects peculiar how he was able to gain it. He was known to have been very interested in *tabes dorsalis* and had studied very closely every authority at home and abroad upon it, and had them all at his finger tips. As luck would have it one of the cases he was called upon to discuss was one of *tabes*. The examiners were, I believe, Dr. Andrew, Dr. Gee and Sir Dyce Duckworth, who were reported to have said Gibbens's report was a revelation to them. Dr. Gibbens practised in Barking ever since he qualified at the Conjoint Board in 1887, and by his personal charm, coupled with his skill, conducted an extensive practice.

In his early days he was Medical Officer of Health for Barking U.D.C., but preferred private practice to accepting the offer of a whole-time appointment. Dr. Gibbens was also a keen lecturer upon ambulance work for many years in the district.

He is survived by his widow and only son, who has nearly completed his course as a barrister. A. T. B.

GASTROSCOPY.

THE inspection of the gastric mucosa during life with the use of the gastroscope gives us a means of widening our knowledge of the pathological processes in the stomach, which has been very little used in this country. Much of the information we can get by gastroscopy cannot be obtained by any other method at our disposal.

By the direct inspection of the mucosa we can observe changes far more minute than by the best radiological methods, and differences in colour can be seen only by these means.

To the pathologist it is an even more exact examination than a post-mortem, for this is very severely

handicapped by the changes which are produced in the colour and contour of the mucosa immediately before and after death.

Gastroscopy in the clinical investigation of the stomach occupies a place of rather less importance than cystoscopy in urology. This is because the radiological examination of the stomach is easier than the bladder, and can demonstrate with great accuracy ulcer and carcinoma, which are usually considered the only important diseases of the stomach. Gastroscopy is also a more troublesome procedure even to the male patient than cystoscopy, and although these two methods of investigation are of the same age, the gastroscope is still regarded as a curiosity.

In 1868 Kuszmaul persuaded a sword-swallower to allow him to introduce into his oesophagus a rigid metal tube 13 mm in diameter. This tube had a gas-light attached to the proximal end but Kuszmaul saw nothing of the gastric mucosa, and it was not until 1879, when the use of electricity was better understood, that Nitze, the inventor of the cystoscope, constructed a gastroscope on the same principle and performed the first satisfactory gastroscopy. Mikulicz perfected the instrument, and after this there appear in the literature numerous names, of which perhaps the best known to us are Chevalier Jackson, Hill, Sussmann and Elsner.

At this time the gastroscope was the only reliable method of gastric diagnosis. With the development of the test-meal, interest in gastroscopy increased, but it was never widely used. The reason of course was that, at that time, it was an excessively dangerous procedure, anaesthesia was bad, and the instruments were crude.

At the beginning of this century, radiology, a new, easy and increasingly certain method of diagnosing the two most important gastric lesions, ulcer and carcinoma, displaced the unpleasant and dangerous method of gastroscopy. The diagnosis of chronic gastritis which has been so accurately and so frequently made with the gastroscope now became a refuge of ignorance. If a patient was found on X-ray examination to be suffering from neither carcinoma nor ulcer, he was probably labelled as gastroparesis, atonia, nervous dyspepsia or the like, but not as chronic gastritis, which was forgotten as a disease requiring treatment.

In Germany shortly after the war the interest in gastroscopy was revived by the work of Schindler, Elsner, Korbsch, Gutzeit and others, but owing to the fact that the instrument employed was rigid and that excessive skill and great care were necessary to avoid fatal accidents, its use still remained very limited.

In 1932 the instrument maker Georg Wolf of Berlin, by an ingenious arrangement of lenses, made a flexible gastroscope which gave a good and clear view (Fig. 1).

This gastroscope was tried out clinically, principally by Schindler of Munich, and also Norbert Henning of Leipzig. From this time the gastroscope has been used increasingly often in clinics on the Continent, and more recently in England.

I have used in my work here a flexible Wolf-Schindler gastroscope. This instrument is constructed on the principle of a cystoscope, but the distal 14 in. can be flexed through an angle of 45°, and the telescope is not removable. Illumination is provided by a strong 12-volt bulb, and the tip of the instrument has a buffer of sorbo rubber. The shaft carries an air canal which has a valve opening just proximal to the lens and air is pumped in with a hand bellows to distend the stomach. The field has an angle of 90°; the view obtained is like that of a cystoscope in perspective and clearness.

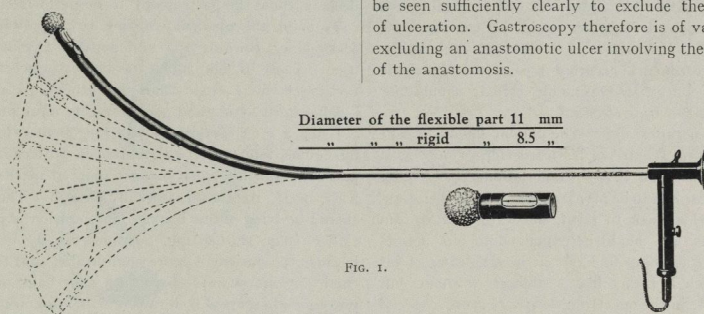


FIG. 1.

Owing to the large number of lenses through which the light has to pass the illumination is not brilliant enough for efficient photography. Photographs of the gastric mucosa can, however, be taken by two methods, the first with a camera which fits on to a rigid gastroscope which has fewer lenses and therefore a brighter light, secondly by the "blind" method, in which a small camera is lowered into the stomach at the tip of a stomach-tube. This camera has six minute lenses arranged round the circumference of the tube. The stomach is inflated with air, the camera is manipulated under the X-ray screen, a record of its position is made and the photographs are taken. This method is uncertain and of no practical value.

Gastroscopy is a very valuable supplement to the other methods of clinical diagnosis, and is indicated when the diagnosis is uncertain or incomplete. Gastritis cannot be diagnosed with certainty by any of the ordinary methods at our disposal, and it is therefore in the diagnosis of this condition and of its type and extent that gastroscopy is most useful. It is frequently found

that a case of severe dyspepsia which has produced negative results by clinical, chemical and radiological examination will show on gastroscopy to have a severe gastritis which may yield to appropriate treatment.

The character of an ulcer may be left uncertain by the radiologist, and in a certain number of these cases it may be possible to decide by the use of the gastroscope whether the ulcer is malignant or not. It must, however, be realized that an early carcinomatous change in an ulcer can be diagnosed only on histological examination.

The diagnosis of gastro-jejunal ulcer is one of the most difficult problems that the radiologist has to solve, and it is similarly a difficult problem for the gastroscopist. In the majority of cases the stoma can be seen fairly well, but only rarely can the jejunal side of the stoma be seen sufficiently clearly to exclude the possibility of ulceration. Gastroscopy therefore is of value only in excluding an anastomotic ulcer involving the gastric side of the anastomosis.

In the anemias X-rays give no reliable help in assessing the state of the gastric mucosa, but with the gastroscope the degree of atrophy of the mucosa can to some extent be estimated by its transparency, the character of the folds and their behaviour on inflation.

These, I think, are the main indications for gastroscopy in clinical practice. For research purposes, however, gastroscopy is an invaluable method of investigation.

Gastroscopy should be performed only after careful clinical examination and X-ray examination of the stomach. It is therefore supplementary to the usual methods of investigation.

The discomfort of gastroscopy under local anaesthesia varies, as does cystoscopy, with the type of patient. There is no doubt, however, that gastroscopy is a more unpleasant procedure, not because of the pain it causes, which is usually less than that of cystoscopy, but because of the nausea induced even with careful local anaesthesia. The only troublesome after-effect is sore throat, and this is not, as a rule, either severe or prolonged.

In Moutier's clinic in Paris the majority of his patients after being gastroscoped go straight home by "Metro", although Moutier himself says they sometimes feel "not so well".

There are certain obvious and rigid contra-indications to gastroscopy, such as œsophageal stenosis, aneurysm, intra-thoracic neoplasms and severe heart or lung disease. It should not be performed in cases of hæmatemesis, even when the patient is not seriously ill. The greatest risk of gastroscopy is perforation of the œsophagus, which has only been recorded at the lower end, where the œsophagus turns to the left as it passes towards the diaphragm. This accident has not occurred in the several thousand gastroscopies performed by Schindler, Henning and Moutier with the flexible gastroscope. It has occurred, however, with the use of the rigid gastroscope, and it was this accident which led to gastroscopy being given up in this country some few years ago. Perforation of the stomach even by the flexible gastroscope has occurred in cases of large friable carcinomata, but with reasonable care it should not occur even in this type of case.

Technique of gastroscopy—The patient should be sent to the operating theatre in his ward clothes, just as if he were to have an X-ray examination. It is quite unnecessary for him to be prepared for a major operation, with his clothes back to front, hot-water bottles and near relations. It should be explained to him beforehand that he is going to have an investigation of his stomach which is rather like a stomach washout, but has to be done in the operating theatre because a special tilting table is necessary.

No food is allowed after the last meal the evening before, and therefore gastroscopy is best performed in the morning. The normal increase of blood supply to the stomach which occurs during digestion may be mistaken for inflammatory hyperæmia if gastroscopy is not performed on a fasting stomach.

General or local anaesthesia may be used. While general anaesthesia has the advantage that the unpleasantness of the instrumentation is abolished, any anaesthetic which produces the relaxation required for gastroscopy is not in itself without risk. Also the œsophagus being relaxed, the air with which the stomach is inflated tends to regurgitate, so resulting in obstruction of the view by reason of the collapse of the stomach. Gas, ether and oxygen are unjustified unless the patient is having it for another operation, because of the post-anaesthetic vomiting and unpleasantness. Evipan has been used on a small series of cases and has been found satisfactory. It is given with the patient in the left lateral position ready for the instrument to be passed. The left arm is fixed to a plaster splint which is prepared

beforehand, and the needle is kept in the vein throughout the entire examination, so that should it be necessary some more can be given. Mr. J. H. West, who has been kind enough to give the evipan for me, has found a dose of '6 to '9 grm. necessary.

Local anaesthesia has been used for the majority of my cases and with it some pre-medication is advisable. I have used a mixture of $\frac{1}{4}$ gr. omnopon, $\frac{1}{100}$ gr. hyoscine and $\frac{1}{100}$ gr. atropine, given $1\frac{1}{2}$ hours before gastroscopy. If an hour later the respirations are above 16 per minute a further $\frac{1}{4}$ gr. of omnopon is given. This usually produces a pleasant drowsiness and sometimes amnesia, while in only two cases out of 170 has the patient been unable to co-operate. Avertin and nembutal have been tried, but their effect is uncertain, and although the patient may not be able to co-operate, he may not be sufficiently deep to allow the gastroscopy to be performed.

To paint the pharynx, cocaine 10%, pantocain 2% (dessicaine), psicaine 2% and percaïn 2% have been used. There is not much to choose between them. Cocaine is more toxic than the others, pantocain is quicker in its action and percaïn rather more prolonged.

Using a 2 c.c. syringe with a long bent cannula the lips, gums, tongue, soft palate, fauces, posterior pharyngeal wall and hypopharynx are painted in that order. 2 c.c. of 2% pantocain is usually enough. The patient should be lying on his back. This position is preferred rather than the sitting position usually described, because the patient is more comfortable, and the anaesthetic introduced into the mouth runs back on to the posterior pharyngeal wall, where it is most needed.

After a few minutes' interval a stomach-tube is passed and the residual gastric juice aspirated. The patient is now placed in the left lateral position on the operating table, the hips and knees flexed, the back straight and resting against a firm support. The two anterior superior iliac spines are in a vertical line and also the shoulders. The neck is extended and the chin held forward. In this position the patient could see the under-surface of his chin in a mirror placed directly in front of him, and if this is explained to him the position is quickly arrived at. The head is held accurately in the midline by an assistant, who sits behind the patient. The gastroscopist sits facing the patient's head; two fingers of the left hand are passed into the mouth, the tongue depressed anteriorly and the gastroscope introduced with the right hand. A slight resistance is felt when the tip reaches the level of the cricopharyngeus. This is overcome by exerting gentle pressure and asking the patient to swallow. A little resistance may be met with at the diaphragm, which again should be overcome by gentle pressure and asking the patient to breathe deeply. At no time should

any force be used, and when the instrument is introduced it should be moved as little as possible upwards and downwards, and not at all from side to side, as these movements produce discomfort.

Special tables have been designed by Henning, Moutier and others. The only advantage which these tables have over the Bart's pattern operating table is that they have a special head-rest and can be rolled from side to side. As a skilled assistant is better than a mechanical head-rest, and the rolling can be as easily done by the gastroscopist himself moving the patient's right shoulder, I feel that these special tables are unnecessary.

After the gastroscope is introduced the flex and bellows are attached, and air is blown into the stomach until a view is obtained. It is important to have a



FIG. 2.—THE BLIND AREAS OF THE STOMACH OF A "J"-SHAPED STOMACH.

good look round at this stage, as with greater inflation certain parts of the stomach may be so far displaced from the objective that the minute contour of the mucosa becomes indistinct. Inflation should stop if the patient complains of discomfort.

Orientation is one of the greatest difficulties of gastroscopy, and it is only by experience and bearing in mind a mental picture of the relation of the gastroscope to the stomach that this is made easier. This relation may be seen in an X-ray photograph. Certain landmarks are, however, easily recognizable. In the left lateral position the pylorus can be seen when the objective is pointing upwards at 12 o'clock, and the pool of mucus which collects in the most dependent part of the stomach at 6 o'clock. Towards 3 o'clock is the posterior wall and towards 9 o'clock the anterior wall. The mucosa of the anterior wall is usually less folded than the posterior in a normal stomach.

The area of stomach visible.—The area of the mucosa visible depends to a large extent upon the type of

stomach, but with all types of stomach the highest part of the fundus, the region of the cardia, the upper part of the lesser curvature and the interior pole of the stomach are always invisible (see Fig. 2). In the high cow-horn type of stomach the antrum is clearly seen, as Fig. 3 shows, but in a long low stomach whose antrum is bent sharply on the body, the lesser curvature beyond the angulus is invisible. It is obvious that included in these blind areas of the stomach there is a large part of the lesser curvature and sometimes the pylorus, and as

LESSER CURVATURE.



FIG. 3.—SHOWING THE PYLORUS AND PYLORIC ANTRUM.

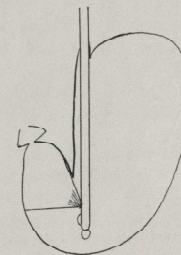


FIG. 4.—RETROGRADE OBJECTIVE SHOWING THE INCREASED VISIBILITY OF THE PYLORIC ANTRUM.

it is here that so many important pathological lesions occur, this is a disadvantage of gastroscopy that must be overcome. There are many methods which we can use to bring these areas into view. On deep expiration the pylorus moves down relatively to the rest of the stomach and thus can be more easily seen. A retrograde objective will also allow a better view of the pyloric antrum (see Fig. 4). The lesser curvature immediately proximal to the angulus is always clearly visible, but in the upper part as the mucosa approaches the gastroscope the view becomes indistinct. To allow this upper part of the lesser curvature to be seen a small rubber balloon may be attached to the gastroscope immediately proximal to the objective

(Fig. 5). If this is inflated the lesser curvature is displaced to the right and is kept far enough away to be seen clearly. By using the balloon the entire lesser curvature above the angulus can be satisfactorily seen. By turning the instrument round, the balloon may be used to pull the cardiac end of the stomach a little upwards and increase the visibility of the fundus.

With the right-angle objective the inferior pole of the stomach is always invisible. As most gastroenterostomy stomata lie somewhere near this spot they may be incompletely seen, and for this purpose a prograde or forward-looking objective is more useful (Fig. 6).

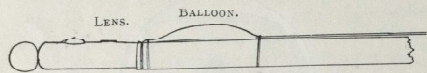


FIG. 5.—TO SHOW THE POSITION OF THE BALLOON WHICH WHEN INFLATED CAN DISPLACE THE LESSER CURVATURE.

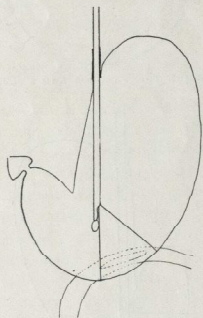


FIG. 6.—SHOWING THE USE OF A PROGRADE INSTRUMENT IN EXAMINING THE INFERIOR POLE OF THE STOMACH.

Colour of the mucosa.—The normal gastric mucosa is a deep orange-red colour. It is, however, difficult to decide in any particular case whether the mucosa is paler or darker than usual. A duodenal tube on which three bands of colour have been painted can be used as a standard against which to compare the colour of the mucosa. The tube is introduced before the gastro-scope instead of the larger stomach tube. Through it the fasting juice is aspirated and it is kept in position. This adds little if anything to the difficulty in passing the instrument or to the patient's discomfort.

Sore throat is the only important complication after gastroscopy, but it unfortunately occurs fairly frequently. Its causes are trauma, which may be produced either by the struggling or rigidity of the patient, roughness on the part of the surgeon, or roughness of

the gastroscope, and since I have waxed the rough areas of the gastroscope as was suggested to me by Prof. Witts, I have found that the incidence of sore throat has been reduced. Other causes are the prolonged dryness of the mouth and use of too much anæsthetic. 2 c.c. of pantocain are usually enough. This will give anæsthesia lasting about one hour, after which the patient is given a mouth-wash and something to eat and drink.

MEMORIES OF MACKENZIE'S.

NOW quickly the past disappears! Even the bricks of what was once Mackenzie's, the old house in which midwifery clerks of the early days of the twentieth century lived, have long ago crumbled into dust.

It was with some such thoughts as these that last week I passed the site of the old house in Cloth Fair where I had once learned the practice of midwifery. Scenes that I thought had been long forgotten flickered through my mind. Again I heard the clanging of that bell that waked the clerk on duty from his slumbers in the early hours of the morning. Poking my head out of the window I again saw the frenzied husband battering at the door.

"Better come quickly," he would shout, "the pains are getting something chronic". Then bundling into clothes and seizing our little black bags, I and my companion would hurry down to the door to be conducted by devious by-ways into some tenement house at the back of Goswell Road. Up the stairs, falling over a pail in the dark passage, we would reach a lighted room in which lay a woman groaning and clutching at the bedclothes. Everything was all right now; the processes of Nature could proceed. Two gentlemen from St. Bartholomew's were in attendance.

Frankly I disliked the whole business, and wished that Nature had devised some other method of bringing new creatures into the world. With hands laid upon the abdomen we were expected to feel the position of the child, how it was faring, and whether its arrival into the world was proceeding according to the rules of the text-books. Actually I felt nothing except a very stout woman and some knobs like plums in a vast suet pudding. The whole thing was preposterous, and I should never have been asked to do it.

Nevertheless I could not help liking Mrs. Honeybun. She had acquired this name in Dorset, where Honeybuns are by no means unknown, but her husband, a tram

conductor, was now residing in London. Podge Oulton and I had been summoned to her couch at 3 o'clock in the morning. It looked like a simple case, for Mrs. Honeybun had already a family of three, and knew how to pull on the towel tied to the foot of the bed. I had made a preliminary examination, discovering even less than usual except that the lady was unusually big. Now I was listening through my stethoscope to a strange noise like a kettle boiling in the patient's interior.

Mrs. Honeybun was impressed. "What is it, doctor? Is it a boy?"

"A fine boy, Mrs. Honeybun. I congratulate you."

"Oh, I'm so glad! You see, doctor, I've got three girls and my husband wants a boy."

The conversation was interrupted—things were evidently coming to a head. "PULL, Mrs. Honeybun. That's right. Put your feet against the bed. Now another."

It was over surprisingly quickly, and Mrs. Honeybun was soon lying comfortably in her bed, tired but satisfied that she had done her bit. A rather undersized daughter wrapped in a towel lay beside her. The placenta had come away nicely, and the uterus, though still rather large, was not bleeding more than seemed reasonable. The two doctors, having achieved this miracle, could now retire to the street for a cigarette whilst the friend who was acting as nurse washed their mackintoshes.

"Well, that's that," said Podge, "and a good job too."

"Nice woman, the Honeybun," I answered. "I'm glad she did all right, though I'm sorry it wasn't a boy."

Suddenly a window opened above us and the nurse screamed, "Come quick."

"What's the matter?" I shouted, "Too much blood coming?"

"No, a baby."

The face disappeared, so it was no good asking for more information. "Post-partum hæmorrhage" I gasped, and made for the door. It was my case, but Podge was before me. Up the stairs he went with the speed that had earned him his blue. He beat me by at least two flights, and by the time I had reached the room it was all over. In his hands was a screaming boy. He turned to me.

"Just caught it before it bounced on the floor."

Mrs. Honeybun was one big smile.

"There, I knew you wouldn't deceive me, doctor. I just felt I could leave everything in your hands. But why didn't you tell me about the girl?"

"A little surprise" I answered truthfully. "That's all, a little surprise."

"Lord," said Mrs. Honeybun, "I hope there aren't no more!"

"No more, Mrs. Honeybun. I promise you that. What will you call him?"

Mrs. Honeybun thought deeply for a moment, then looked slightly embarrassed. At last she spoke.

"Do you mind telling me your name?"

"Kenneth," I answered.

"What a lovely name! He shall be Kenneth, and I hope he will grow up half as clever as you."

We parted the warmest of friends. I never saw her or my namesake again, but if by any chance a Kenneth Honeybun should read these pages, and should feel that during his entry into the world he did not receive the medical attention to which he was entitled, will he please recall that his mother was very fat!

IN PRAISE OF SLEEP.

MR. HAROLD NICOLSON has told how he, the youngest member of the Foreign Office staff, was sent urgently to the German Embassy on the night of August 4th, 1914, to recover a document which stated, in effect, that England and Germany were at war and which had been sent, by mistake, some hours before that statement became true. In a state of considerable mental agitation, for the situation was a delicate one, he was shown into the Ambassador's bedroom. Prince Lichnowsky lay in bed, on a table beside him lay the premature document, unopened.

Now that time has mellowed the unfriendly tones of the contemporary picture, how deeply can we appreciate the Prince's calm philosophy, his balance of mind in that unhappy moment. A lesser man would have seized the dispatch, read its contents, summoned his secretaries, marshalled his attachés and settled down to a hard night's work, writing reports, collecting papers, making arrangements for his departure. But Prince Lichnowsky had a fuller realization of the implications of the position. He knew only too well what that letter must contain—he knew that now his work in London was ended. And meanwhile, it was bedtime. Why spend the precious hours in futile activity when he might with a clear conscience spend them on his brass bedstead deep in the enjoyment of sleep? Why, indeed? For of all the pleasures which the world can offer, few can be accounted more precious than sleep. Poets have sung its praises, Shakespeare has said something about it somewhere, thousands will testify every day to its virtues; yet, save by those who are unable to get it, sleep is still denied its proper value among the blessings of this life.

"The utmost that can be said," wrote Samuel Butler, "is that we are fairly happy so long as we are not distinctly aware of being miserable". One is driven to the conclusion that Butler must have been a very poor sleeper. For no true narcophile could deny the positive happiness imparted by the process of going to sleep—by lying in bed, exquisitely tired, pulling the bedclothes closer and, with a sigh, abandoning oneself to the worship of Morpheus.

I have often wondered whether it would be possible to devise some means of keeping sufficient of one's mind awake to enjoy the long hours of complete unconsciousness which, because of that unconsciousness, go entirely to waste. Even dreams, which are by no means always enjoyable, are said to occupy only a moment of time before we awake. Our enjoyment of sleep lies, not in the sleeping, but in the seeking of sleep and in the wakening. Its highest peak, perhaps, comes when one wakes to realize that there is still an hour or more for sleep. There are some people, I am told, who, once awake, cannot sleep again but must perforce get up. How I pity them! They can never know the delight of turning over on to the other side, where one achieves a state of comfort quite sublime, and sinking back once more into unconsciousness. But one has only to contemplate a sleeping creature to believe that there is some happiness to be had even in the unconscious state. The Chesapeake and Ohio Line advertises the comforts of its sleeping-cars to the public of the United States with the slogan, "Sleep Like a Kitten". And to ram the lesson home, they accompany it with a picture of that kitten tucked between the Chesapeake and Ohio Line's sheets, so obviously enjoying its sleep that one feels an impulse to sail at once for New York for the single purpose of travelling to St. Louis in a state of similar bliss.

Like a kitten—what genius lies behind the choice of that phrase! For the kitten, and indeed the adult cat, is perhaps the most accomplished sleeper of the animal world. One feels that it contrives to wring the last drop of enjoyment out of its slumber. The dog, too, sleeps well, but with a savage abandon and with none of that appearance of gifted artistry which belongs to the cat. There are, of course, among animals some wretchedly bad sleepers. I cannot, for instance, recollect ever to have seen a cow asleep. But then, I never had a very high opinion of the intelligence of the cow.

Every silver lining (the phrase is not mine) has its cloud. And every sleep must come at last to the moment of getting up. The agony of that moment is almost too great a price to pay. I have tried putting the alarm clock at the other end of the room, I have tried drinking tea, I have even followed Dr. Strabismus

(whom God preserve) of Utrecht and tried tying two pieces of string together: these things may quicken the process, but they cannot lessen the pain. Almost as bitter is the pain of being compelled to stay awake when sleep calls with all its might, bids with all its persuasion for possession of one's soul. May I be preserved from the risk of being frozen to death when, one is told, to yield to the almost overwhelming drowsiness is fatal. In such a circumstance I must surely perish. ☐

MR. PICKWICK'S BIRTHDAY.

(A lecture delivered to the Abernethian Society on
March 5th, 1936.)

By Mr. BERNARD DARWIN.

THE hundredth anniversary of Mr. Pickwick's first appearance falls on March 31st this year. Some people, of course, know him very well; but there are others, in the words of Sergeant Buzfuz, "beings erect upon two legs and having all the outward semblance of men and not of monsters", who know him very little. I must apologise, then, to the learned, if I am too elementary, and to the unlearned, if I am too subtle.

A great many people here know all about the origin of Pickwick, and I shall not go into it at length; but at the risk of going over old ground it is perhaps just worth while pointing out this. Here is one of the indubitably great books of the world, and it came into being almost by a fluke. There was a popular artist called Robert Seymour, who drew pictures of sporting cockneys. They were successful, and he told Chapman and Hall that he would like to do some more. They had then to look about for somebody, who would in effect write some matter to accompany the pictures. They thought of several people—they even wrote to one, and very fortunately he did not answer the letter. Then they remembered there was a handy young man called Dickens, who had written some good little sketches and they would be able to get him cheap. Mr. Hall went to see him and suggested a Nimrod Club, but the handy young man was not perhaps quite as overwhelmed and compliant as they expected. He said the club was an old idea, that he was not much of a sportsman and that he would probably take his own way in the end. However, he adopted the Club to please the publishers and put in Mr. Winkle to please Seymour. The story appeared in monthly instalments, and before the second number came out, Mr. Seymour, for no particular reason, shot himself. There was a rush to find another illustrator, and they found a gentleman called Buss, who painted factious Academy

pictures of Sir Walter Raleigh and his pipe—he has had many counterparts since; the result was hopeless, and he had to be sacked. They had incidentally rejected John Leech and Thackeray in the search. They then got Hablot K. Browne, who suited very well. Dickens was, of course, under no sort of obligation to fit himself to his new illustrator as he had to Seymour, and incidentally the original cover of Pickwick shows a stout gentleman fishing from a punt. If Seymour had continued, either Mr. Pickwick or Mr. Winkle or both would have had to fish. As it was Dickens now took the bit between his teeth and did what he pleased. With the fifth number came Sam Weller, and what had been a moderate success became a craze. One of the most pleasant pieces of evidence of this surge of popularity came, incidentally, from Carlyle. "An Archdeacon," he wrote, "with his own venerable lips repeated a strange profane story of a solemn clergyman, who had been a ghostly consolation to a sick person. Having finished satisfactorily, as he thought and left the room, he heard the sick man ejaculate, 'Well, thank God, Pickwick will be out in ten days anyway'".

Dickens was now a made man over and over again, but the fact remains that only a little while before he had been a backwriter, who would have to write round Seymour's pictures. So much for the beginnings, and now I propose to touch on a more topical aspect of the subject, suggested by the audience.

If Mr. Bob Sawyer and Mr. Ben Allen had been at Bart's they would doubtless have been shining lights of the Abernethian Society. But they were not at Bart's, for Dickens better understood their spiritual home and sent them to Guy's. Mr. Sawyer, you will remember, "had about him that slovenly smartness and swaggering gait, which is peculiar to young gentlemen who smoke in the streets by day, shout and scream in the same by night, call waiters by their Christian names and do various other acts and deeds of an equally facetious description". Dickens was no doubt right in sending them to Guy's.

An illustrious profession has rather suffered from Mr. Sawyer and Mr. Allen—though not as much as the ladies have suffered from Mrs. Gamp. Yet I hope I can show you that Mr. Sawyer and Mr. Allen were, in many ways, much maligned people, and had many qualities wholly desirable in their profession. First of all they were extremely enthusiastic about their work:

"Nothing like dissecting, to give one an appetite," said Mr. Bob Sawyer, looking round the table.

Mr. Pickwick slightly shuddered.

"By the bye, Bob," said Mr. Allen, "have you finished that leg yet?"

"Nearly," replied Sawyer, helping himself to half a fowl as he spoke. "It's a very muscular one for a child's."

"Is it?" inquired Mr. Allen, carelessly.

"Very," said Bob Sawyer, with his mouth full.

"I've put my name down for an arm at our place," said Mr. Allen. "We're clubbing for a subject, and the list is nearly full, only we can't get hold of any fellow that wants a head. I wish you'd take it."

"No," replied Bob Sawyer, "can't afford expensive luxuries."

"Nonsense!" said Allen.

"Can't indeed," rejoined Bob Sawyer, "I wouldn't mind a brain but I couldn't stand a whole head."

At this point they were lushed by Mr. Pickwick owing to the ladies' arrival, but later Mr. Sawyer, under the influence of brandy and breakfast, "ripened into a state of extreme facetiousness, and related with much glee an agreeable anecdote about the removal of a tumour on some gentleman's head, which he illustrated by means of an oyster knife and a half quarten loaf".

The same professional keenness was noticeable when the Pickwickians went to supper with Mr. Sawyer at Lant Street, and here we come to an ornament of this Hospital, and a very great ornament too—Mr. Jack Hopkins. The conversation turned on the surgical skill of Mr. Slasher:

"You consider Mr. Slasher a good operator?" said Mr. Pickwick.

"Best alive," replied Hopkins. "Took a boy's leg out of the socket last week—boy ate five apples and a ginger-bread cake—exactly two minutes after it was all over, boy said he wouldn't be there to be made game of and he'd tell his mother if they didn't begin."

"Dear me!" said Mr. Pickwick astonished.

"Pooh! that's nothing, that ain't," said Jack Hopkins, "is it Bob?"

"Nothing at all," replied Mr. Bob Sawyer.

"By the bye, Bob," said Hopkins, with a scarcely perceptible glance at Mr. Pickwick's attentive face, "we had a curious accident last night. A child was brought in, who had swallowed a necklace."

"Swallowed what, sir?" interrupted Mr. Pickwick.

"A necklace," replied Jack Hopkins. "Not all at once, you know, that would be too much—you couldn't swallow that, if the child did—oh, Mr. Pickwick, ha! ha!" Mr. Hopkins appeared highly gratified with his own pleasantry, and continued, "No, the way was this child's parents were poor people who lived in a court. Child's eldest sister bought a necklace; common necklace, made of large black wooden beads. Child, being fond of toys, cribbed the necklace, hid it, played with it, cut the string, and swallowed a bead. Child thought it capital fun, went back next day and swallowed another bead."

"Bless my heart," said Mr. Pickwick, "what a dreadful thing. I beg your pardon, sir, go on."

"Next day, child swallowed five beads: the day after that, he treated himself to three, and so on, till in a week's time he had got through the necklace—five-and-twenty beads in all. The sister, who was an industrious girl, and seldom treated herself to a bit of finery, cried her eyes out, at the loss of the necklace; looked high and low for it; but, I needn't say, didn't find it. A few days afterwards, the family were at dinner—baked shoulder of mutton, and potatoes under it—the child, who wasn't hungry, was playing about the room, when suddenly there was heard a devil of a noise, like a small hailstorm. 'Don't do that, my boy,' said the father. 'I ain't a doin' nothing,' said the child. 'Well don't do it again,' said the father. There was a short silence, and then the noise began again, worse than ever. 'If you don't mind what I say, my boy' said the father, 'you'll find yourself in bed, in something less than a pig's whisper.' He gave the child a shake to make him obedient, and such a rattling ensued as nobody ever heard before. 'Why, don't you, it's in the child!' said the father, 'he's got the croup in the wrong place!' 'No I haven't father,' said the child, beginning to cry, 'it's the necklace; I swallowed it, father.'—The father caught the child up, and ran with him to the hospital: the beads in the boy's stomach rattling all the way with the jolting; and the people looking up in the air, and down in the cellars, to see where

the unusual sound came from. He's in the hospital now," said Jack Hopkins, "and he makes such a devil of a noise when he walks about, that they're obliged to muffle him in a watchman's coat, for fear he should wake the patients!"

"That's the most extraordinary case I ever heard of," said Mr. Pickwick, with an emphatic blow on the table.
"Oh, that's nothing," said Jack Hopkins; "is it, Bob?"
"Certainly not," replied Mr. Bob Sawyer.
"Very singular things occur in our profession, I can assure you, sir," said Hopkins.
"So I should be disposed to imagine," replied Mr. Pickwick.

I am disposed to imagine that this was one of the few occasions when Mr. Pickwick was in his innocence inclined to doubt whether he was being told the exact truth.

Again Mr. Sawyer was a man of strong and independent views and not afraid of airing them. Mr. Pickwick you know fell through the ice into the pond at Dingley Dell. Mr. Ben Allen thought it would be a good thing to bleed the company generally, but Mr. Sawyer, we are inclined to think, did not approve. Mr. Pickwick was wrapped up in shawls and taken home to bed, and the whole company assembled in his room to drink hot punch.

Next day there was not a trace of rheumatism about him, which proves, as Mr. Bob Sawyer very aptly observed, that there is nothing like hot punch in such cases, and that, if ever hot punch did fail to act as a preventive, it was merely because the patient fell into the vulgar error of not taking enough. That was an error at any rate into which Mr. Sawyer never fell himself; on another occasion he made rum punch in a mortar and stirred it with a pestle in a highly creditable and apothecary-like manner. He was in fact a physician, who practised what he preached.

When Mr. Sawyer went into practice at Bristol I am not sure that his conduct was quite worthy of his career at his hospital. You know more about this sort of thing than I do, and I do not think that the General Medical Council would have wholly approved of him. He came terribly near the infinite crime of advertising, and what is more, he followed an irregular practice:

"Did you leave all the medicine?"

"Yes, Sir."

"The powders for the child at the large house with the new family. And the pills to be taken four times a day at the old gentleman's with the gouty leg?"

"Yes, Sir."

"Then shut the door and mind the shop."

"Come," said Mr. Winkle as the boy retired, "you are not quite so bad as you would have me believe either. There is some medicine to be sent out."

Mr. Bob Sawyer peeped into the shop to see that no stranger was within hearing, and leaned forward to Mr. Winkle said in a low tone, "He leaves it all at the wrong houses."

Mr. Winkle looked perplexed and Bob Sawyer and his friend laughed.

"Don't you see," said Bob, "he goes up to a house, rings the area bell, pokes a packet of medicine without a direction into the servant's hand and walks off. Servant takes it into the dining parlour; master opens it and reads the label; Draught to be taken

at bed time—pills as before—lotion as usual—the powder. From Sawyer's late Nockemorf's. Physician's prescriptions carefully prepared and all the rest of it. Shows it to his wife—she reads the label; it goes down to the servants—they read the label. Next day, boy calls; very sorry—his mistake—immense business—great many parcels to deliver—Mr. Sawyer's compliments—late Nockemorf. The name gets known, and that's the thing, my boy in the medical way, bless your heart, old fellow it's better than all the advertising in the world. We have got one four ounce bottle that's been to half the houses in Bristol and hasn't done yet."

"Dear me, I see," observed Mr. Winkle, "what an excellent plan."
"Oh, Ben and I have hit upon a dozen such," replied Bob Sawyer with great glee. "The lamplighter has eighteen pence a week to pull the night bell for ten minutes every time he comes round; and my boy always rushes into Church, just before the psalms when the people have got nothing to do but look about them, and calls me out, with horror and dismay depicted on his countenance. Bless my soul, everybody says, somebody taken suddenly ill! Sawyer, late Nockemorf, sent for; what a business that young man has."

I ought to add finally that both Mr. Sawyer and Mr. Allen were persons of elastic mind not incapable of admitting they were wrong—no doubt a frequent occurrence. When they were in India they each had yellow fever fourteen times, and decided to try a little abstinence. The last we hear of them is they were doing well.

There are other members of the profession in Pickwick, though less famous. There was, for instance, Dr. Slammer of the 97th Regiment and Dr. Payne of the 43rd at Rochester, but they were more concerned with duelling than doctoring. There is another, however, to whom I must draw your attention because he had what I venture to imagine must be a valuable gift in difficult cases when, if this ever arises, you don't know what's the matter. It consists of adapting the diagnosis to the statements of the patient. He comes into the story that Sam Weller told his master about the little man who ate crumpets:

"One night he was took very ill; sends for the doctor; doctor comes in a green fly, with a kind o' Robinson Crusoe set o' steps, as he could let down when he got out, and pull up arter him wen he got in, to prevent the necessity o' the coachman's gettin' down, and thereby deceivin' the public by lettin' 'em see that it was only a livery coat as he'd got on, and not the trousers to match. 'Wat's the matter?' says the doctor. 'Wery ill,' says the patient. 'Wot have you been a eatin' on?' says the doctor. 'Roast veal,' says the patient. 'Wot's the last thing you dewoured?' says the doctor. 'Crumpets,' says the patient. 'That's it!' says the doctor. 'I'll send you a box o' pills direct, and don't you never take no more o' 'em,' he says. 'No more o' wot?' says the patient. 'Pills?' 'No,' crumpets, says the doctor. 'Wy?' says the patient, starting up in bed; 'I've eat four crumpets, ev'ry night for fifteen year, on principle.' 'Well, then, you'd better leave 'em off, on principle,' says the doctor. 'Crumpets is wholesome, sir,' says the patient. 'Crumpets is not wholesome, sir,' says the doctor, wery fierce. 'But they're so cheap,' says the patient, 'comin' down a little, and so wery fillin' at the price.' 'They'd be dear to you, at any price; dear if you wos paid to eat 'em,' says the doctor. 'Four crumpets a night,' he says, 'will do your business in six months!' The patient looks him full in the face, and turns it over in his mind for a long time, and at last he says, 'Are you sure o' that 'ere, sir?' 'I'll stake my professional reputation on it,' says the doctor. 'How many crumpets, at a sittin', do you think 'ud kill me off at once?' says the patient. 'I don't know,' says the doctor. 'Do you think half a crown's wurth 'ud do it?' says the patient. 'I think it might,' says the

doctor. 'Three shillins' wurth 'ud be sure to do it, I s'pose?' says the patient. 'Certainly,' says the doctor. 'Wery good,' says the patient; 'good night.' Next mornin' he gets up, has a fire lit, orders in three shillins' worth o' crumpets, toasts 'em all, eats 'em all, and blows his brains out."

"What did he do that for?" inquired Mr. Pickwick abruptly; for he was considerably startled by this tragical termination of the narrative.

"Wot did he do it for, sir?" reiterated Sam. "Wy in support of his great principle that crumpets was wholesome, and to show that he wouldn't be put out of his way for nobody!"

So much for the doctors, and now we come back to Mr. Pickwick's Birthday. There is, as far as I know, only one piece of evidence in the book that is more or less conclusive. He was called "Dear old thing" by Miss Arabella Allen, with the fur round her boots, and "Jolly old gentleman" by Mr. Jingle. Well, Mr. Pickwick was at the most, I should say, 44.

When Mr. Pickwick was asked to slide he said, "I used to do so in the gutters when I was a boy". On being further pressed he added, "I should be very happy to afford you any amusement as I haven't done such these 30 years".

I think that 15 is as old as we can reasonably put the age of a boy. Mr. Pickwick would have gone into business at 16, and 15 and 30 make 45.

Many of our notions of the ages of people in Pickwick have to be reconsidered in the light of uncompromising fact. Mrs. Wardle is called a very old lady. She was very deaf; she never went out. But we have it on the unimpeachable authority of Mr. Perker, the family solicitor, that she was not yet 73. To-day she would be a giddy young thing going to cocktail parties. Her son is constantly alluded to as "The jolly old gentleman". Well, he said rather unchivalrously to his sister, "you're fifty if you are an hour". So perhaps he was about 52. I suppose the explanation is partly that people a hundred years ago almost deliberately got old earlier and would have nothing to do with times changing. The other reason no doubt is as old as the human race, namely, the tendency of young gentlemen to deem rather older ones senile.

Dickens was, as I say, a very young man. He was 23, and one of the astonishing things about Pickwick is the way in which at 23 he leaped in one single prodigious bound to the very top of the tree. I think he climbed to a greater height than he ever reached again. He had not been an infant phenomenon. As you may know, he had been writing verses in the album of Miss Maria Bladnell, who was long afterwards to be Dora in *David Copperfield*. They were not merely youthfully crude and turgid, but excruciatingly bad. Anybody who had read them would have told him that whatever else he did he must never think of writing. Then came his first story, *Mr. Minns and his cousin*—a very mild little story; and then there were *Sketches by Boz*. Well,

eminent people now apply all sorts of epithets to *Sketches by Boz*. Somebody was doing it in the *Times* the other day, and all I can say is that I can't agree, and that the eminent persons are only being wise after the event. I think if any astute editor had read them he would have said that the writer had remarkable powers of observation, that he would write a very good account of a fire or an inquest, that he was just the man to get on his paper as a descriptive reporter; but I very much doubt whether anybody would have seen that this was going to be one of the greatest figures of English literature. Then came this one chance, though it did not look much of a chance, and see what he made of it. Because it was his first chance, Dickens poured into his book everything that was seething and bubbling in his head. Ordinary people who write for a living make their ideas, such as they are, go as far as possible. The poor journalist says, "This joke will do for Saturday's article, I'll keep the other for Saturday week". Even highly respectable novelists spread the jam of their ideas as thin as they can and keep some up their sleeve. Great men do not do that, and I may give as an instance a great modern humourist, Mr. P. G. Wodehouse. One of his stories is a glorious and generous hotchpot of notions, each of which would have made half a dozen stories for a lesser master. So it was with Dickens, and as a result the book was, as Mr. Chesterton calls it, "a kind of wild promise, a pre-natal vision of all the children of Dickens". And I will dare to say this—that with perhaps one exception, Dickens showed in Pickwick that he could do every kind of thing as well as ever he did it afterwards.

Dickens's supreme achievement is the creation of great comic characters. Yet you may pick a team from all the other books put together—Mr. Micawber, Dick Swiveller, Mr. Toots, Mr. Guppy and Mrs. Gamp—and find another team out of Pickwick to make a match of it. Let us say Mr. Pickwick, the two Wellers, Bob Sawyer and Solomon Pell. In sheer power of description he never afterwards excelled the scenes in the Fleet Prison, not even in the Marshalsea in *Little Dorrit* or in Newgate in *Great Expectations*. It is, however, his power to portray pathos on which I would lay emphasis for a moment, for Dickens became rather a professional describer of death-beds, and his contemporaries wept buckets over them, Little Nell, Little Paul, Little Johnny—all children. We do not nowadays think them very good because Dickens seems to stop, take his coat off, roll up his sleeves and say, "I am going to be pathetic". The death-bed of Mrs. Weller, on the other hand, when he keeps himself under restraint, is really magnificent, and I would read it to you if I were not

RUGBY FOOTBALL CLUB.

Semi-final Inter-Hospitals Cup.

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

Played at Richmond. Lost, 10-0.
St. Bartholomew's Hospital met its Waterloo on the playing-fields of Richmond on the afternoon of March 5th. Although at the start play was even, there was only one period during the game when we really looked like scoring, and that came at the beginning of the second half when St. Thomas's had only three points, and penalty points at that, to their credit. Hopes ran high for a time, but were short-lived. They had obtained this lead just before half-time as the result of the marked tendency of our forwards to fall offside, and once more we cannot refrain from commenting on the nine free-kicks which were offered by our forwards to their opponents. They worked hard, but seemed somehow to lack co-ordination.

Luck was against us. Hearn got badly shaken up in the early stages of the game and his passing suffered in consequence; Youngman was hurt, too, and St. Thomas's had the benefit of a freshening wind in the second half—but such are only excuses. The three-quarter backs are indeed to be congratulated in that St. Thomas's never crossed our line, but at the same time there were only two or three movements of their own which might have borne fruit and their handling was not creditable. Fifteen minutes from the end another free kick from the '25 enabled Fenwick to increase the St. Thomas's lead, and victory was made sure by a fine goal dropped by Williams, the stand-off half.

As the secretary of the team remarked, it was rather a disappointing game.

Team.—C. R. Morison (back); E. Griffiths, R. I. C. Coupland, G. A. Fairlie-Clarke, J. G. Youngman (three-quarters); P. L. Candler, R. D. Hearn (halves); P. D. Swinestead, A. R. P. Ellis, E. M. Darnady, G. Gray, W. M. Capper, J. C. Newbold, R. Mundy, G. T. S. Williams (forwards).

ASSOCIATION FOOTBALL CLUB.

Inter-Hospitals Cup Final.

ST. BARTHOLOMEW'S HOSPITAL v. ST. MARY'S HOSPITAL.

Played at Kingston on March 5th against St. Mary's Hospital. Lost, 4-3.

Having beaten St. Thomas's in the Semi-final in a game that was more a test of endurance than a football match, the Club was very hopeful of winning the Senior Cup, but this was not to be. Looking back on the match it must be admitted that we were beaten by a better team, a team that would not give up when a goal down, but fought back all the time. They improved steadily, and in the last 20 minutes had the game well in hand. When St. Bartholomew's obtained the lead, which they did three times, there was a definite tendency to fall back on the defensive—a fatal mistake with fast moving and hard shooting forwards such as St. Mary's possess. One gained the impression that if the Mary's backs had been hustled and worried all through the game as they were in the first half they might well have broken down.

In our team, the man of the match was Knowles; his sure tackling and cool kicking was a pleasure to watch. Of the halves Coleman was best, and of the forwards Waring, though Ward on the other wing was also good and Gilbert was always in the fight. Waring opened the scoring after 15 minutes of throwing-in. Ward cut in from the left and from his pass Waring scored. Mary's at once equalized. After 35 minutes a corner from Ward was beautifully converted by Howell, but again Mary's equalized. Half-time, 2-2. Five minutes after half-time Ward centred to Gilbert, who was unmarked, and again Dart's had the lead. From then on St. Mary's attacked relentlessly, and scored two goals to win 4-3.

Team.—T. O. McKane; H. Knowles, P. J. Hardie; R. W. A. Coleman, D. R. S. Howell, J. L. Cardwell; J. W. B. Waring, P. A. K. Brownlee, R. G. Gilbert, J. O. Callimore, A. I. Ward.

Inter-Hospitals Junior Cup Final.

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Won 3-2. St. Bartholomew's Hospital played well and deserved to win. For most of the game they were pressing, and the two goals scored by St. Mary's in the first half were due in part to the laxity of the defence, though this improved in the second half and they were never in real danger. James scored twice in the first

half, once with his head and once with his foot, while the deciding goal was scored about 15 minutes after half-time by Grossmark with a very good shot. Wells-Cole, James and Owen deserve especial mention, with the rest of the team *pro. access*.

Team.—G. N. Wells-Cole; G. Herbert, J. P. McGladdery; G. H. Darke, R. M. Elder, K. B. Scott; C. A. Nicolson, W. A. Owen, A. Grossmark, C. J. A. James, B. H. Goodrich.

UNITED HOSPITALS BOXING COMPETITION.

The competition was held on March 3rd in the Stadium Club, Holborn, a great improvement on the familiar Blackfriars Ring, and the honours of the evening were divided between the London and St. Mary's Hospitals. The St. Bartholomew's team did not shine, but can fairly claim to have had more than its share of misfortune. Nevertheless, it is high time the Cup was back here again.

R. F. Boomla put up a very creditable performance in the fly-weights, and his quickstraight left gained him many points against Griffiths of St. Thomas's. He was still within reach of victory in the third round when he stopped a couple of good rights from his opponent and the referee stopped the fight. T. P. Storey was up against J. E. Lovelock in the feather-weights, and a very fast fight resulted. Storey was elusive, and Lovelock, who eventually won his weight, found him hard to hit, but he lacks a good attacking punch. In the light-weight semi-final J. W. G. Evans found in B. Wilson of St. Thomas's an opponent who could assimilate plenty of punishment. At the end of the first round he had his man dazed on the ropes and might have finished him off, but he waited until the second round, when he knocked him out with a couple of vicious rights.

Bell boxed better against Evans of St. Mary's than we have seen him previously. He lost the second round, but maintained the aggression throughout the rest of the fight, and the decision of the judges against him was critically received. In the welter-weights J. J. Slowe, the Captain of the United Hospitals team, was not very impressive against Cohen of St. Mary's; he was clearly trying to save a damaged right hand, and it wasn't until the last round that he began to show us the class of boxer that he is and increase his lead to ensure a victory. A. Sandford is to be complimented on knocking out Stevens of St. Mary's, an experienced South African boxer, in the semi-final of the heavy-weights. He scored well and often with his left hand against a difficult opponent, and when he gains more experience should develop into a very useful boxer.

Our hopes of having two champions to our credit were dashed when Slowe lost his fight with Rees of St. Thomas's, and Evans was knocked out by Holamandres of Guy's. Slowe's fight was a disappointment, but he was not at his best and the weakness of his right hand had undermined his confidence, though he scored many times with his left. He should not be discouraged, for he has the right to be proud of his year as Captain of the United Hospitals team, which culminated in a victory in the Inter-Hospitals and Universities Competition.

Evans v. Holamandres in the final of the light-weights promised to be the best fight of the evening. Towards the end of the first round we saw that Evans had ceased to use his left hand, and in the second round this injury—it turned out to be a Bennett's fracture—made it no longer possible for him to hold off his opponent and Holamandres took full advantage of this, knocking him out before the round was over.

CORRESPONDENCE.

PATHOLOGICAL REFUSE.

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

Sir,—Still bearing the signature of the late Sir Frederick Andrews is a notice by the door of the cold-storage room in this Department declaring, in the picturesque phraseology always at his command, that unlabelled material left there would periodically be "cast out and burned with fire". This warning is no less necessary at the present day than it was in his time. More often than not human remains of some kind have been discoverable there at any time for many years past, and the principal immediate cause of this letter is an amputated leg in an advanced stage of decay, contained in an immense brown paper bag, and bearing not the smallest clue to its

origin or ownership. This is only one among many specimens, chiefly of body fluids, which have rested in this room for long periods and lost all appearance of possessing usefulness or value.

Time stands still in a cold-storage chamber: things "stay put" in it more than one sense, and forgetfulness encouraged by a perhaps not fully merited confidence in freedom from decay is excusable. But we are entitled to assume that after a certain lapse of time material can no longer be wanted unless its ownership is declared and the owner can therefore be reminded of its presence. I have the authority of the Professor of Pathology in stating that for all unlabelled specimens the rule framed by Sir Frederick Andrews will in future be enforced with greater regularity and severity than in the past.

I am,

Yours faithfully,

LAWRENCE P. GARROD.

Pathological Department,
St. Bartholomew's Hospital,
London, E.C. 4,
March 12th, 1936.

REVIEWS.

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This appeared in our columns last year, and we cannot recommend it too highly to our readers.—E.

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In spite of the irrepressible optimism of the Daily Press no "cancer cure" has ever yet come up to expectations, so that the importance of early diagnosis of the disease remains as great as ever. This is emphasized by the fact that we are now for the second time within a few months reviewing a book entitled *The Early Diagnosis of Malignant Disease*, and it is interesting to find that both volumes are the production of members of the staff of this hospital. Not that there is any rivalry between them. The book already reviewed was of small compass and cost but half-a-crown. The present volume has greater dignity and cubic content, and must contain a good many more words. Also it is written by five pens instead of one, and may therefore be supposed to be more comprehensive. The object of both books, as expressed by Dr. Malcolm Donaldson in his preface, is "to remind the general practitioner of the essential points in making a provisional diagnosis of cancer, and to urge the necessity of at once sending the patient to some hospital or other institution for expert opinion". Too often a provisional diagnosis results only in a period of delay before expert opinion and investigation is called in. This mistake the book now sponsored and partly written by Dr. Donaldson will certainly help to correct, if only it be read and disseminated by those who have the best opportunity of making early diagnoses—the general practitioners. Although the book has been compiled by five pens, the greater part of it has been written by one general surgeon, Mr. Stanford Cade of the Westminster Hospital staff. He has been assisted by four specialists—Dr. Donaldson, Mr. Douglas Harmer, Mr. Ogier Ward and Mr. Tudor Edwards—who have each contributed one section dealing with his speciality. The remaining eight sections are covered by Mr. Cade. As might be expected from the names of the writers, there is little to criticize in what they have written. The early signs and symptoms of cancer in all parts of the body are described as clearly as they can be, and the methods of investigation indicated. Mr. Cade and Mr. Harmer have long collaborated at the Mount Vernon Hospital in the treatment of malignant disease of the upper air-passages, and no one could speak with greater authority than does Mr. Harmer in the section assigned to him. Elsewhere occasional exaggerations of statement can be detected. For instance, in relation to bleeding from the nipple, "duct carcinoma is as frequent as duct papilloma" is perhaps an over-statement, but it is at any rate an emphasis in the right direction. In relation to the diagnosis of cancer of the gall-bladder, it is stated that "a clinical diagnosis of primary carcinoma is not always

possible, particularly in its early stage". From the seven pages devoted to cancer of the bile-passages and pancreas it is abundantly clear that early diagnosis is *never* possible except by chance, and it may be doubted whether any light is shed by this section. The space might more profitably have been given to a discussion of the early diagnosis of carcinoma of the thyroid gland, which, surprisingly enough, has been completely omitted. It was inconsistent, in a work dealing with carcinoma in its various forms, to include a section on sarcoma of bone, though fully justifiable, since this is one of the few forms of sarcoma in which relatively early diagnosis is likely to be made.

The printing, as is usual with the Oxford medical books, is large and readable and the page well proportioned. The whole book is indeed worthy of the importance of its subject, and Dr. Donaldson is to be congratulated on the success of a venture which obviously took its inspiration from him.

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THE STORY OF THE MIDDLESEX HOSPITAL MEDICAL SCHOOL. By H. CAMPBELL THOMSON, M.D., F.R.C.P. (John Murray, 1935.) Price 10s. 6d.

There is romance enough in the daily happenings in a great modern hospital, but for those who pause to consider, the evolution of such a place provides food for thought, and for a historian with a taste for research amongst forgotten archives and a devotion to his subject, such as Dr. Campbell Thomson possesses, there is material in plenty.

The link with the past, illustrated with many a quaint anecdote, which Dr. Thomson gives us, will serve not only to afford us yet another glimpse of the struggles of Medicine in its infancy—of times when truth must be sought out afresh and loosed from the smothering bonds of prejudice and superstition with which it was obscured. It also will record the progress which has been made in a short two hundred years, in building up the Middlesex Hospital of to-day, from the scanty beginnings provided by two small dwelling-houses endowed for the treatment of the sick and lame in 1745, at which time the country between the hospital and the City was the haunt of wild-fowl and highwaymen.

The book should be of especial interest to the medical student of to-day in convincing him of the happiness of his lot—so very different from what it was even a hundred years ago.

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Many clinical students will remember this excellent book in far distant days when they grappled with first M.B.'s and premedical conjoints. It is for the benefit of those pre-clinical students who

RUGBY FOOTBALL CLUB.

Semi-final Inter-Hospitals Cup.

ST. BARTHOLOMEW'S HOSPITAL v. ST. THOMAS'S HOSPITAL.
Played at Richmond. *Lost, 10-0.*

St. Bartholomew's Hospital met its Waterloo on the playing-fields of Richmond on the afternoon of March 5th. Although at the start play was even, there was only one period during the game when we really looked like scoring, and that came at the beginning of the second half when St. Thomas's had only three points, and penalty points at that. Hopes ran high for a time, but were short-lived. They had obtained this lead just before half-time as the result of the marked tendency of our forwards to fall offside, and once more we cannot refrain from commencing on the nine free-kicks which were offered by our forwards to their opponents. They worked hard, but seemed somehow to lack co-ordination.

Luck was against us. Hearn got badly shaken up in the early stages of the game and his passing suffered in consequence; Youngman was hurt, too, and St. Thomas's had the benefit of a freshening wind in the second half—but such are only excuses. The three-quarter backs are indeed to be congratulated in that St. Thomas's never crossed our line, but at the same time there were only two or three movements of their own which might have borne fruit and their handling was not creditable. Fifteen minutes from the end another free kick from the '25 enabled Fenwick to increase to St. Thomas's lead, and victory was made sure by a fine goal dropped by Williams, the stand off half.

As the secretary of the team remarked, it was rather a disappointing game.

Team.—C. R. Morison (*back*); F. Griffiths, R. I. G. Coupland, G. A. Fadic Clarke, J. C. Youngman (*three-quarters*); P. L. Candler, R. D. Hearn (*halves*); P. D. Swinstead, A. R. P. Ellis, E. M. Darmady, G. Gray, W. M. Capper, J. C. Newbold, R. Mundy, G. T. S. Williams (*forwards*).

ASSOCIATION FOOTBALL CLUB.

Inter-Hospitals Cup Final.

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Played at Kingston on March 5th against St. Mary's Hospital.
Lost, 4-3.

Having beaten St. Thomas's in the Semi-final in a game that was more a test of endurance than a football match, the Club was very hopeful of winning the Senior Cup, but this was not to be. Looking back on the match it must be admitted that we were beaten by a better team, a team that would not give up when a goal down, but fought back all the time. They improved steadily, and in the last 20 minutes had the game well in hand. When St. Bartholomew's obtained the lead, which they did three times, there was a definite tendency to fall back on the defensive—a fatal mistake with fast moving and hard shooting forwards such as St. Mary's possess. One earned the impression that if the Mary's backs had been hustled and worried all through the game as they were in the first half they might well have broken down.

In our team, the man of the match was Knowles; his sure tackling and cool kicking was a pleasure to watch. Of the halves Coleman was best, and of the forwards Waring, though Ward on the other wing was also good and Gilbert was always in the fight. Waring in opened the scoring after 15 minutes of throwing-in. Ward cut in from the left and from his pass Waring scored. Mary's at once equalized. After 35 minutes a corner from Ward was beautifully converted by Howell, but again Mary's equalized. Half-time, 2-2. Five minutes after half-time Ward centred to Gilbert, who was unmarked, and again Bart's had the lead. From then on St. Mary's attacked relentlessly, and scored two goals to win 4-3.

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ST. BARTHOLOMEW'S HOSPITAL v. ST. MARY'S HOSPITAL.
Won 5-2. St. Bartholomew's Hospital played well and deserved to win. For most of the game they were pressing, and the two goals scored by St. Mary's in the first half were due in part to the laxity of the defence, though this improved in the second half and they were never in real danger. James scored twice in the first

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have not as yet discovered it that we give it our wholehearted blessing. It is still in its old form, but naturally enough, it has been brought up-to-date regarding X-rays, radio-activity and the more universal application of alternating current.

PRIVATE NURSING. By MARIANNE WENDEN, S.R.N., S.C.M. (Faber & Faber, Ltd., 1936.) Price 6s.

It is well that a nurse who, on completion of her general training, contemplates taking up private nursing, should have at her disposal information in a concise and readable form dealing specifically with that subject. This volume serves that purpose usefully. The early chapters deal with such points as the qualifications desirable, the various channels of employment, expenditure and possible income, and the equipment necessary, while the remainder of the book is devoted to practical details of nursing.

BELOVED GHOSTS. By "OLE MAN RIVER". (John Bale.) Price 6s.

This is a slight volume of somewhat sentimental anecdotes which may recall persons and scenes to those whose memories stretch back to the closing years of the last century. It might be better value if the price were less by half-a-crown.

We have also received:

SURGICAL INSTRUMENTS AND APPLIANCES USED IN OPERATIONS. By HAROLD BURROWS, C.B.E., M.B.(Lond.), B.S., F.R.C.S. New edition. (Faber & Faber, 1936.) Price 2s. 6d.

REMEDIAL EXERCISES FOR CERTAIN DISEASES OF THE HEART AND LUNGS. By HESTER S. ANOROVE. (Faber & Faber, 1936.) Price 6s.

DISEASES OF THE EAR, NOSE AND THROAT. By W. S. SYME, M.B., F.R.F.P.S. Catechism Series, Second edition. (E. & S. Livingstone, 1936.) Price 1s. 6d.

ORAL HYGIENE. By HARRY CAMPBELL, M.D., F.R.C.P. (Reprinted from *The Medical World*, January, 1936.) Price 6d.

Medical Publications, Ltd., inform us that the price of *Post-Graduate Surgery* (Maingot) has been raised to £3 10s. per volume, or £9 9s. per set of three volumes.

EXAMINATIONS, ETC.

University of Cambridge.

The following Degree has been conferred:

M.D.—Kersley, G. D.

University of London.

Second Examination for Medical Degrees, March, 1936.

Part I.—Akerovd, G. A. S., Baldwin, A. F., Birch, R. G., Bone, D. H., Boomla, R. F., Burkill, E. A., Chisholm, J. K., Cocks, D., Dickson, R. R., Elek, S. D., Ezechiel, P. A., Fitzhardinge, A. N. B., Fry, P., Garden, J. F. G., Griffiths, E., Harold, J. T., Heathfield, K. W. G. G., Jamison, H. M., Karn, H., Katz, A., Latham, P. R., Leven, M., Libertonson, A., McFarlane, M., Macpherson, K., Manning, J. D., Morris, O. D., O'Callaghan, M. D. M., Orchard, N. P., Pablot, P. J., Protheroe, B. A., Rees, E. H., Saudek, A. C. J., Scatliff, J. N. K., Simpson, R. A. H., Sutton, M. G., Walker, A. J., Ward, A. L., Wigglesworth, R., Williamson, D. A. J., Wohl, M.

British College of Obstetricians and Gynecologists.

The following have been elected to the Membership:

Jeaffreson, B. L., MacVine, J. S.

CHANCES OF ADDRESS.

BALLINGALL, Lt.-Col. D. C. G., M.C., R.A.M.C., British Military Hospital, Nasirabad, Rajputana, India.

BEADLES, H. S., 26, Clevedon Mansions, Lissenden Gardens, N.W. 3.

BROCKLEHURST, K. J., 11, Avon Grove, Sneyd Park, Bristol 9.

ELLISON, P. O., 12, Wimpole Street, W. 1. (Tel. Langham 4260.)

KILLENBACK, H. C., 50, Clarendon Court, Finchley Road, N.W. 11.

KING, Lt.-Col. H. H., C.I.E., I.M.S., Fairlawn, Beaconsfield, Bucks. (Tel. Beaconsfield 893.)

MACKENZIE, A. V., Belmont Road, Shrewsbury.

OAKLEY, W. G., 14, Blenheim House, St. John's Wood, N.W. 8. (Tel. Maida Vale 1281.)

WEST, C. ERNEST, The Hive, Sturminster Newton, Dorset.

APPOINTMENTS.

KING, J. F. LASCELLES, M.B., B.S.(Lond.), appointed Anasthetist to the Evelina Hospital, Southwark.

OAKLEY, W. G., M.D., M.R.C.P., appointed Honorary Assistant Physician to St. Andrew's Hospital, Dollis Hill.

BIRTHS.

BELL.—On March 24th, 1936, at 29, Bentinck Street, to Hilda (*née* Faure), wife of Arthur C. Bell, F.R.C.S.—a daughter.

BOURNE.—On March 28th, 1936, to Joyce (*née* Postle), wife of Dr. W. A. Bourne, of 46, Wilbury Road, Hove—a daughter.

DAVENPORT.—On March 17th, 1936, at 27, Welbeck Street, to Helen (*née* Mayfield), wife of Robert Davenport, F.R.C.S.—twin sons.

DAY.—On March 14th, 1936, at Norwich, to Dr. and Mrs. George H. Day—a son.

EDWARDS.—On March 24th, 1936, to Betty (*née* Murdoch), wife of Dr. John A. Edwards, Coln Cottage, Colnbrook, Bucks—a son.

EVANS.—On March 8th, 1936, at Alfred House, Portland Place, W. 1, to Viola (*née* Quennell), wife of Frank Evans—a son (Robert).

HIGGINSON.—On March 3rd, 1936, at Sussex House Nursing Home, W. 9, to Nora (*née* Rolle), wife of H. C. H. Higginson, M.B.—a son.

KING.—On February 21st, 1936, at 32, Chestnut Place, W. 2, to Moira (*née* Atteridge), wife of J. F. Lascelles King—a son (David).

PAGAN.—On March 15th, 1936, at 104, St. James Road, Southampton, to Betty (*née* Watkins), wife of Dr. A. T. Pagan—a son.

WHITCHURCH HOWELL.—On March 11th, 1936, to Frances (*née* Roper Blackwood), wife of Bernard Whitchurch Howell, of 123, Harley Street, W. 1—a daughter.

MARRIAGES.

GROVES—ST. JOHN.—On March 28th, 1936, at St. Cross, Winchester, by the Bishop of Winchester, assisted by Rev. S. T. Percival, Dr. John Nison Groves, son of Dr. and Mrs. C. Nixon Groves, to Myrtle St. John, niece of Sir Charles and Lady Close.

KNOX—CRUST.—On March 21st, 1936, at St. Bartholomew the Great, Dr. Robert Knox, of Cambridge, to Lynda Crust, of Miningsby.

DEATHS.

EDER.—On March 30th, 1936, passed peacefully away from heart failure after a short illness, at 6, Brendon House, W. 1, Dr. M. David Eder.

GARROD.—On March 28th, 1936, suddenly, at 1, Huntingdon Road, Cambridge, Archibald Edward Garrod, B.C.M.G., D.M., F.R.S., aged 78.

GIBBENS.—On March 1st, 1936, at 1, Bank Chambers, Barking, Frank Edward Gibbens, M.R.C.S., L.R.C.P.

SHADWELL.—On March 21st, 1936, at Richmond, Arthur Shadwell, M.D., F.R.C.P., husband of Alice Louise Shadwell, aged 81.

TWEEDIE.—On March 18th, 1936, Alexander Robert Tweedie, F.R.C.S., T.D., late Colonel R A M.C.

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, E.C. 1.

The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, Mr. G. J. WILLIAMS, M.B.E., B.A., at the Hospital.

All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.

St. Bartholomew's Hospital



JOURNAL.

VOL. XLIII.—No. 8.]

MAY 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Tues., May 5	—Dr. Geoffrey Evans and Mr. Roberts on duty.
Fri., .. 8	—Prof. Witts and Prof. Paterson Ross on duty. Medicine: Clinical Lecture by Dr. Graham.
Sat., .. 9	—Hospital Sports. Cricket Match v. St. John's College, Cambridge. Away.
Mon., .. 11	—Special Subjects: Lecture by Mr. Elmslie.
Tues., .. 12	—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Wed., .. 13	—View Day.
Fri., .. 15	—Dr. Gow and Mr. Girling Ball on duty. Medicine: Clinical Lecture by Dr. Gow.
Sat., .. 16	—Cricket Match v. Hornsey. Home.
Mon., .. 18	—Special Subjects: Lecture by Mr. Capps.
Tues., .. 19	—Dr. Graham and Mr. Roberts on duty.
Wed., .. 20	—Surgery: Clinical Lecture by Mr. Wilson. Golf: Staff v. Students.
Thurs., .. 21	—Last day for receiving matter for the June issue of the Journal.
Fri., .. 22	—Dr. Geoffrey Evans and Mr. Vick on duty. Medicine: Clinical Lecture by Dr. Evans.
Sat., .. 23	—Cricket Match: Past v. Present.
Sun., .. 24	—Cricket Match v. Romany C.C. Home.
Mon., .. 25	—Special Subjects: Lecture by Mr. Bedford Russell.
Tues., .. 26	—Prof. Witts and Prof. Paterson Ross on duty.
Wed., .. 27	—Surgery: Clinical Lecture by Mr. Ball.
Fri., .. 29	—Dr. Hinds Howell and Mr. Harold Wilson on duty. Medicine: Clinical Lecture by Dr. Gow.
Sat., .. 30	—Cricket Match v. Leavesden Mental Hospital. Away.
Mon., June 1	—Whitsun Monday.
Tues., .. 2	—Dr. Gow and Mr. Girling Ball on duty.
Wed., .. 3	—Surgery: Clinical Lecture by Mr. Wilson. Cricket Match v. Horlick's. Away.
Fri., .. 5	—Dr. Graham and Mr. Roberts on duty. Medicine: Clinical Lecture by Dr. Evans.
Sat., .. 6	—Cricket Match v. Wanderers' C.C. Home.

EDITORIAL.

THE return of holiday-makers once more gives the Square an air of activity, and the beginning of the Summer Session has been very aptly marked by the arrival of the sunshine, which makes or mars the pleasure of collecting round the Fountain. But the pleasure on this occasion is enhanced by numerous

changes in the environment. We can sit and watch the rapid steps daily transforming the new X-Ray and Medical Blocks and, even nearer to us, admire the new form of the four shelters so familiar to generations of Bart.'s men. For the hands of the ablutioner have been turned to the dust and dirt, that have accumulated through long years of change, and arrayed them in a new and most attractive coat of varnish, reminding us of the approach of View Day—a day of which they could tell us many wonderful things if by some providential interposition the power of speech were bestowed on them.

This year, indeed, the tale is long and triumphant, and the Charterhouse site in particular will amaze the Hospital's friends, few of whom could have imagined the change that has come over it in a year—so much so that it is an anachronism to refer to it any longer as a site. Rather shall we show it with exceeding pride as the greatest acquisition and achievement of Bart.'s for a very long time.

We apologize for the error, in our last issue, of referring to Mr. Vick as co-Treasurer of the Hospital. It should, of course, read co-Treasurer of the Medical College.

We should like to draw the attention of our readers to the fact that we are always pleased to receive contributions in prose or verse on any subject of special or general interest. They will assist in our endeavour to restore the old order of strict punctuality which marked the publication of the JOURNAL until quite recently, and we would invite St. Bartholomew's men, both past and present, to send any contribution which will help us.

We regret to announce the death of another Consulting Physician of the Hospital—Sir Wilmot Herringham. An obituary notice will appear in our next issue.

Sir Walter Langdon Brown has been elected to a Life Fellowship at Corpus Christi College, Cambridge.

* * *

Sir Bernard Spilsbury will deliver the Croonian Lectures on "The Doctrine of Inflammation" at 5 o'clock at the Royal College of Physicians on May 19th, 21st and 26th.

* * *

Mr. H. B. Stallard has been awarded the Nettleship Gold Medal for the most valuable contribution to Ophthalmology during the past three years.

* * *

The Swimming Club announce that they have acquired the use of St. Mary's Hospital Swimming-Bath on Friday evenings from 5.30-7 p.m. Anyone interested in swimming or water polo will be welcomed on the Club evenings.

* * *

A Dance will be held in the College Hall, Charterhouse Square, on Friday, May 15th, in aid of the College Appeal Fund. Tickets, 10s. 6d., may be obtained from the Secretaries of the Students' Union.

OBITUARIES.

SIR ARCHIBALD GARROD.

It is with very great regret that we record the death of Sir Archibald Edward Garrod, one of our Consulting Physicians, on March 26th, 1936, after a very short illness, at the age of 78. The son of Sir Alfred Garrod, F.R.S., a very distinguished physician, he was educated at Marlborough College and Christchurch, Oxford, where he took a First Class in Natural Science in 1880. In the same year he entered the Hospital, and in 1885 became House Physician to Sir Dyce Duckworth, at a time when a house physician was appointed for a whole year, and was responsible for the work in the Surgery as well as in the wards. He took the D.M. of Oxford in 1886, the Membership of the Royal College of Physicians in 1885, and was elected to the Fellowship in 1891. He held the post of Casualty Physician in 1887, but then had to wait until 1896 before he was appointed a Medical Registrar and Demonstrator of Morbid Anatomy. During this time of waiting he was appointed an Assistant Physician to the West London Hospital in 1888, and worked there for eight years. He was elected an Assistant Physician at Great Ormond Street in 1892, becoming full Physician

in 1899. He was appointed an Assistant Physician to the Hospital in 1903, and Lecturer in Chemical Pathology in 1904. In 1905, together with Dr. Herbert Morley Fletcher he took charge of a special Out-Patient Department for Children, and thus helped to teach students much that was of value to them in practice.

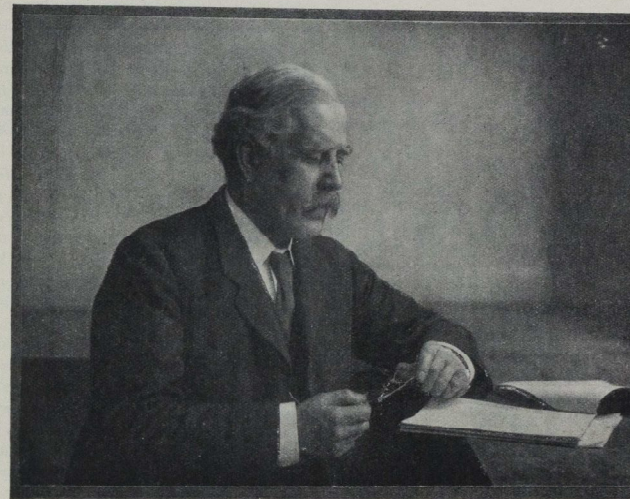
The long years of waiting before his election to the Staff were well spent, as he began his life work on chemical problems in medicine. He turned his attention first of all to the pigments in urine, and then to the study of alkaptonuria and cystinuria. The great rôle of chemistry in medicine was not then realized, and all diseases were thought to be due to infective causes. The sudden realization one day, while walking home from Hospital, that alkaptonuria might be due, not to a bacteriological cause but to a chemical error on the part of the body was epoch-making. The proof of the hypothesis was unexpectedly easy, as the mother of one of his alkaptonuric patients was pregnant. The urine of the newborn babe began to stain the napkins on the second day of life, and homogentisic acid was detected in a specimen of urine collected about a week later. This suggested that the chemical error thus present at birth might have taken place very early in life. This conception was the starting point of his researches on the "Inborn Errors of Metabolism", which formed the subject of the Croonian Lectures of the College of Physicians in 1908. This work gained him the Fellowship of the Royal Society in 1912, which his father and eldest brother had held before him. As a result of this work he was far better known, when he was an Assistant Physician, than anyone else in the Hospital, and many eminent physicians from abroad came to see him and corresponded with him. This scientific training stood him in good stead when he began to teach clinical medicine in the Out-Patient Department and in the wards. The problems were always discussed from a scientific standpoint, and the traditional views were not accepted without careful thought. It is true that he was always chiefly interested in metabolic errors, but his views on other diseases were often much more illuminating than those of physicians who had had greater experience of these diseases. He had, moreover, the power of inspiring the keen student to think for himself, and to delve into the causes of the disease and symptoms.

Garrod, together with Sir William Osler, Sir Wilmot Herringham and Sir William Hale-White was responsible for the formation of the Association of Physicians, and he was joint editor of the *Quarterly Journal of Medicine* from 1907 to 1929.

He was elected a full Physician to the Hospital in 1912, and retired from active work at Great Ormond

Street in 1913, when he became a Consulting Physician. After less than three years of his work in the wards of St. Bartholomew's he was called away to serve as a Consulting Physician, with the rank of Colonel, in the A.M.S. to the Forces in Malta. He saw there the patients evacuated direct from Gallipoli and later on from Salonika. This work called forth all his great powers, for he had to treat patients suffering from tropical diseases which he had never seen previously, but his powers of observation and research enabled him to cope successfully with these problems, and to give valuable advice. His charming personality was never

formation of the Medical Unit as we now know it. Much to his dismay he was not allowed to hold the post for more than nine months, because he was called upon to succeed Sir William Osler as Regius Professor of Physic at Oxford. Here he had entirely different problems to solve, for the opportunities for clinical work were small, and his time was fully occupied with University matters. He was a member of the University Commission, and the task of adequately representing the claims of the Science Faculties was one which called for much patient investigation and tact. He held the Regius Chair for seven years and then retired under the age limit.



better shown than during these four years at Malta. He was created a K.C.M.G. in 1919 for his services.

Before the War he had given evidence before the Haldane Commission in 1914, and had, in association with Sir Anthony Bowly and Sir Wilmot Herringham, advocated a closer association of the Hospital with the University of London. When he returned in 1919 an important Reconstruction Committee of the Hospital was considering how to improve the education of the medical student, and give facilities for research work. He approved of the decision to appoint whole-time Professors of Medicine and Surgery, with an adequate staff, and was chosen as the first Professor and Director of the Medical Unit. He started this work with great enthusiasm in October, 1919, and was responsible for the

At different times he was awarded the Honorary M.D.'s of Padua, Dublin, Aberdeen, Glasgow and Malta.

He married Laura, the daughter of Sir Thomas Smith, one of the Surgeons at the Hospital, and had three sons and one daughter. One son, Noel, was at the Hospital, qualifying in 1914. Two of his sons were killed in France during the War, and the youngest died of pneumonia in Germany after the Armistice.

On his retirement he lived at first in Suffolk, but then migrated to Cambridge, where his daughter, Miss Dorothy Garrod, was a Fellow of Newnham College.

The photograph which we publish was taken in 1913, and is a very good likeness. He was rather thick-set, with a massive head, iron-grey hair kept rather long, bushy eyebrows and dark eyes. His temperament was

placid, and he very rarely showed any irritation. Those who knew him well recognized when he was displeased, whereas the ignorant were wholly unaware of his displeasure.

The Hospital and the whole medical world owes him a great debt of gratitude for the realization that chemistry plays a very great rôle in medicine.

Of Archibald Garrod as a man, it is difficult for a pupil who saw much of him in later years to speak without emotion. All who came into contact with him developed a very great affection for him, and in return he would take great pains to help anyone who asked his aid.

G. G.

DR. ARTHUR SHADWELL.

We regret to announce the death of Dr. Arthur Shadwell, M.D., F.R.C.P., which took place at a nursing home in Richmond on March 21st at the age of 81.

The son of the Rev. Arthur Shadwell, of Langton, Yorks, he was born on September 21st, 1854, and educated at Uppingham and Keble College, Oxford. Entering St. Bartholomew's Hospital in 1877 he took his B.M. in 1883 and went into practice at Brighton, where he became Assistant Physician to the Sussex County Hospital. In 1892 he contributed to the *Times* an account of an epidemic of cholera in Germany and Russia, and this was only the first of a number of contributions extending over the rest of his life, particularly in the Literary Supplement.

In 1899 he published *The London Water Supply*, in 1902, *Drink, Temperance and Legislation*, and in 1906, *Industrial Efficiency*—a work in two volumes, containing the results of a careful and prolonged investigation into conditions as he had found them in the main industrial centres of Great Britain, Germany and the United States. Then in 1925 he wrote *The Socialist Movement*, and four years later *Typhæus: or the Future of Socialism*. His writings thus provide evidence of his diversity of interests, and at his home on Ham Common, to which he retired, he spent many hours in the study of good music and good books.

WILLIAM ROBERTS WILLIAMS.

He was a tall, broad-shouldered man, with a bright eye and open pleasant face. His rough curly mop of black hair he wore just as the wind from his Welsh hills might have blown it. His long and easy country

stride told at once of his favourite pastime and of the way he most liked to travel. His soft North Welsh accent, his ready beaming smile and his shy, refreshing courtesy made an impression on those he met that was pleasing, and which grew better as they knew him. His was a quiet, retiring nature, and he preferred the hills and fields and open views to the hilarious company of crowded rooms. But like so many quiet people he had a keen sense of humour, which was not dulled by the loudness of his own laughter, but increased by an observing eye and a sure appreciation of his fellows. He was quick to understand other people's difficulties, and his help was generous, even embarrassing. He seldom asked for help from others, but if he received it his gratitude was sincere and repaid any trouble he had caused. His intimate friends were few because of his shyness and modesty, but they mourn him deeply, for they will find few friends as loyal as he. It took a long time to get to know this likeable man, but when one did, a liking—an affection—grew, which makes it sad to think he is no longer among us.

He came to us from a farm above Criccieth, with a wide sweep of Cardigan Bay before it and the hills of the Snowdon country behind. Of his father and mother he was very proud, and on dull days, when he was oppressed by examinations, his face would light up as he thought of them, and he would recount some refreshing tale about them and the farm, the hills and the sheep, and he would take fresh life from it.

He had taken up medicine rather later than the average student. The difficulties he had to overcome with hard work, and his disappointments he took with so great a fortitude that his example was difficult to follow. He was more than halfway through his clinical work and had already shown a great capacity for careful clinical observation. He seemed particularly good at that difficult problem—deciding whether a patient was ill or not. The keenness and perseverance he had shown in his preclinical studies became greater when he got to the wards. He could often have been seen working late—putting on a plaster in the accident room or writing notes in the lab., and sometimes illustrating his ward case-sheets with series of diagrams to explain an operation. His patient, trusted and liked him, and were obviously pleased with the whole-hearted attention he gave them. When he qualified he always meant to go to the Wales he loved, and there is little doubt that he would have become that type of country general practitioner of which it is so often said that they are the wisest and best clinicians.

To his parents, whose only child he was, we offer our deepest sympathy in the very tragic loss of such a fine boy.

H. W. R.

THE MESSAGE DEPARTMENT.

At the present time, when over 1000 treatments a week are carried out in the Massage Department, it is a little difficult to believe that thirty-three years ago, when I was House Surgeon, the whole of the massage of the Hospital was carried out by two people. In fact I cannot remember ordering massage for any of my patients when I was house surgeon; no doubt I did so for some, but the number was so small that it has left no impression upon my mind. At that time the work on the female side was carried out by Mrs. Goodman, and that on the male side by Tutton, who will still be remembered as one of the senior Surgery Porters. These two were the "rubbers" to the Hospital; and in fact the term was a correct one, for they did little but rub and give simple movements. The use of active movements, of remedial exercises, of re-education and of the use of a faradic current to induce muscular contractions was little understood, and scarcely practised at all.

Whilst I was an unofficial assistant to Mr. Bruce Clarke in the Orthopaedic Department, scientific massage was first introduced to the Hospital. Mrs. Wilson (now Dr. Justina Wilson) came to take charge on the female side, and Lieutenant Tham, a Swedish officer, came to the male side. The latter was trained at the Central Institute for Massage and Gymnastics in Stockholm, the pioneer institute of its kind, which had been established by Ling early in the nineteenth century. Ling was the pioneer of educational and remedial gymnastics; in fact it may be said that both educational gymnastics and massage and remedial gymnastics are still based on his system and must continue so, because he first worked upon anatomical and physiological lines. Variations, modifications and, perhaps, improvements are introduced, but Ling's fundamental principles remain.

Dr. Wilson had also received her training in Sweden, so that the work on the male and female sides was derived from the same school. Of course it was not possible for the two workers to carry on all the work that began to flow to the Department. Lieut. Tham had two assistants, and Dr. Wilson started a school of massage and brought her teachers and pupils to the Hospital to carry out the work. This system continued for many years and was most satisfactory. After a time Dr. Wilson asked me to give demonstrations to her pupils, and to examine them in anatomy and the elements of pathology and surgery. I certainly learnt a great deal about physical treatment from Dr. Wilson and her assistants.

As already mentioned, scientific massage and remedial gymnastics developed in Sweden as an adjunct to the educational side of the work. It was a long time, however, before the Swedish system penetrated to this country. Just fifty years ago a Swedish woman, Madame Osterberg, founded the first establishment for training in educational gymnastics in England. This is now the Bergmann Osterberg Physical Training College at Dartford. It is only one of a number of excellent training colleges for girls which now exist in this country; but it may be claimed that all the other colleges have arisen from it. Thanks to Madame Osterberg's example, we have, in England, a very excellent system of physical training for women, sufficient to supply expert gymnastic mistresses to schools throughout the country. It is only to be regretted that no similar system has ever developed upon the male side.

The medical side of the work was even later in reaching England, but in 1894 a small body of enthusiasts got together and started, in a small way, training and examining women pupils in massage and remedial exercises. Later they formed themselves into the Incorporated Society of Trained Masseuses. This body was already in existence when Mrs. Wilson and her pupils appeared at the Hospital, and these pupils were entered for the examinations of the I.S.T.M. By the time of the commencement of the War in 1914 the Incorporated Society was well established. War work demanded a very large body of trained masseuses, and the Incorporated Society expanded at a very great rate. In military orthopaedic hospitals, in convalescent camps and in Command depots the staffs of the massage and electrical departments were very large. They consisted almost exclusively of members of the Incorporated Society, and they were brought into very close association with orthopaedic surgeons and other medical officers who were interested in physical treatment. This association led to great modifications and improvements in our ideas of remedial treatments, and has undoubtedly been an important factor in bringing the work of the massage profession in this country up to a very high level.

After the termination of the war the Incorporated Society had become so large and so important that very little difficulty was encountered in obtaining for it a Royal Charter. So in 1921 it became the Chartered Society of Massage and Medical Gymnastics. This body has now nearly 10,000 members. It gives certificates in massage, medical gymnastics, medical electricity, light and electro-therapy and hydrotherapy, and also special certificates to teachers in all these subjects. It contains practically all the trained masseurs

and masseuses in the country, and, in fact, the medical practitioner can assume that when he requires the assistance of a masseur or masseuse, he should employ a member of the Chartered Society, because by so doing he can be sure that he gets someone who is properly trained and who will work on proper professional lines. The massage staff of our Hospital now consists of fully trained members of the Chartered Society, who must have certificates in massage, medical gymnastics and medical electricity. The last certificate is necessary, because the treatment of muscles by direct stimulation with a faradic current is carried out in the massage department as an adjunct to massage. At Guy's, St. Thomas's, King's College and Westminster Hospitals there are schools for training pupils in massage, etc. We have no school at Bart's because we have no adequate premises for housing one. In fact the premises of our Massage Department are inadequate and temporary. They have been temporary for a long time and are likely to remain so for longer. But the survival of temporary premises over a long period is not unusual in hospital work.

The massage profession are taught the anatomy of muscles and of movement very thoroughly; in fact they often know this part of their anatomy better than the medical student. They learn elementary physiology, and an outline of pathology and medicine and surgery. But they do not pretend to learn to diagnose. They are thoroughly well grounded in the principles and methods of the treatments that they carry out, and they get a great deal of practical experience before qualification. It is obvious that the medical student has little instruction in these subjects, and little chance in his crowded curriculum of obtaining experience. He can attend three lectures on mechanotherapy, he can get some incidental teaching in the Orthopaedic Department and he can, if he likes and has time, drop into the Massage Department and glean some knowledge of what goes on there. What, then, should be the relationship of the medical practitioner to the masseur?

Some years ago when at a consultation I had to recommend some form of physical treatment, I used to find myself obliged to look up a masseuse in the neighbourhood and recommend her to the medical practitioner. Nowadays as a rule I find that the practitioner has a masseuse whom he knows and relies upon. Those who settle in a new district soon find the need of a masseur or masseuse. They can always find one by consulting the register of the Chartered Society. The masseur should be treated as an intelligent colleague and assistant, one capable of understanding a clear statement of the diagnosis and probable pathology of the condition

present, and who, given the objects of the treatment, has often a much clearer idea of the details of the treatment advisable than the medical practitioner himself.

The medical man can learn a lot from the masseuse and should never hesitate to do so. He should also be prepared to discuss his patient freely with her, and whilst guiding her in her treatment, be guided by her also, because she probably draws upon a considerable experience of similar cases.

"Massage" as the name of a department is nowadays rather a misnomer. Whilst massage, movements and exercises are sometimes used simply as a method of treatment—for example, general massage, massage for heart disease, abdominal massage, etc.—it is more often used as a preliminary or as an adjunct to movement and exercises. These, in turn, are means to an end: the object of the treatment is the restoration of function. Sir Robert Jones once gave me the definition of the object of orthopaedic surgery as "The restoration of the maximum function in a damaged or disabled part by the simplest means".

The massage department is the department for the restoration of function. R. C. ELSLIE.

CROMWELL'S HEAD: A SCIENTIFIC INVESTIGATION.*

THE fate of Cromwell's head after its disappearance from the roof of Westminster Hall has inspired a wealth of articles, notes and letters produced by people with theories to expound or information to impart. But what is apparently the last word on this intriguing subject has now been written by Prof. Karl Pearson and Dr. G. M. Morant of University College, who have scientifically examined the problem, and publish their results in the meritorious and beautifully illustrated work cited above.

It is almost unnecessary to state that the head chosen by the authors for their painstaking investigation is that in the possession of Canon Horace Wilkinson, which has long been recognized as the only one with a real claim to authenticity. The writers point out that the present research is on a different plane from the discussions of the past, which failed to remove the mist of uncertainty enshrouding the subject. Although men of great reputation such as Reynolds and Flaxman have declared in favour of the head, not a single trustworthy measurement has hitherto been made, nor

* Karl Pearson, F.R.S., and G. M. Morant, D.Sc. *The Portraiture of Oliver Cromwell; with Special Reference to the Wilkinson Head.* Edition de luxe, 107 plates and 108 pages. Price 35s. net. Cambridge University Press, 1935.

any attempt to correlate the head with pictures, masks and busts of Cromwell, which exist in embarrassing number.

The portraits have now been subjected to a critical examination, but they proved to be disappointingly inconsistent when compared one with the other, serious differences being apparent even in two portraits by the same painter. Likewise, medals struck in honour of the Protector and alleged to bear his likeness were found to be of no value whatsoever for comparative purposes. The most reliable guide discovered was the Chequers Court life-mask, whose measurements were so nearly identical with those of the head that these two have been used as a basis in bringing to life-size the remaining seven masks and busts examined. The Chequers mask shows the thick underlip with the beardlet, the upper lip with the central convexity, and the somewhat coarse nose tending toward the left cheek; moreover, the position of the "wart" is determinable. This mask is said to have been taken in 1655 by request of Cromwell's family, and it may be assumed to have passed with most of the Cromwell relics from Frances Cromwell, the Protector's fourth daughter, to her daughter Elizabeth Russell, who married Sir Thomas Frankland. Through the Franklands and Greenhills the relics of Frances Cromwell, in part, passed to Mrs. Frankland Russell Astley of Chequers Court, where they now form a portion of the treasures of the country house of the Prime Ministers of Great Britain. To the casual observer there is a wide difference in appearance between a man's portrait and his embalmed head, and Carlyle may be excused when he said there was not the slightest basis for any of the pretended heads of Cromwell, and that the story of the head being blown down by a high wind to the feet of a sentry was "fraudulent moonshine". Incidentally, Carlyle never saw the head, but he was evidently quite satisfied with his somewhat sweeping verdict.

Cromwell died in 1658 on September 3rd, the magic date of Dunbar and Worcester, and his body was embalmed next day. The surgeons entrusted with the post-mortem wrote a report of the examination, wherein they state that the brain was overcharged with fluid. To ascertain this fact it would be necessary to remove the skull-cap, which destroys the validity of skulls that for so long have been attributed to Cromwell; to be genuine, a saw-cut running completely round and through the skull must be present. The body, after lying in state at Somerset House, was buried with great pomp in Henry VII's Chapel, where it remained until the Restoration. By order of Parliament the coffin was then taken from the tomb and, in company with those of Bradshaw and Ireton, drawn on sledges

to Tyburn, being pelted on the way by the inconstant mob with stones, brickbats and mud. Arrived at Tyburn the three bodies were pulled from their coffins and hung in the triple gallows till sunset, when a bungling executioner set to work to chop off the heads. Cromwell must have been remarkably stiff-necked or the executioner heavily "primed", for an eye witness relates that no less than eight blows with the axe were required to sever the head from the body, which was then thrown into a pit beneath the gallows, together with those of the other "idolatrour regicides". The body of the Protector's favourite daughter, Mrs. Claypole, suffered a like indignity, except that it was not beheaded. At the Restoration her body, buried in the Abbey, was exhumed and cast with others into a pit at the back door of the prebendary's lodgings.

The head was set up in February, 1661, and remained on Westminster Hall for twenty-four or twenty-five years, and that it was in position five months before the death of Charles II is indicated by a passage in the *London Gazette* of June 19th-23rd, 1684, which records that when Sir Thomas Armstrong was executed his head was placed between those of Cromwell and Bradshaw. The usual story of the fall of the head is that one stormy night it was blown down and secreted by a soldier on duty at the Hall, but another version is that it was thrown down in the daytime by workmen repairing the pinnacles, to be swept into the Thames with the builder's rubbish. But it was a felony to interfere with the King's justice, and the head of Cromwell in the reign of Charles II was far too valuable a symbol of "the stupendous and inscrutable judgment of God" to be so lightly swept into the river. It has also been related that the head having blown down, a sentry was trying to recover it when a looker-on offered him a shilling to be allowed to take it away, which was accepted!

The reason for the presence of sentinels may be that at times large sums of money were deposited at the Exchequer Office, hard by the Hall, the Bank of England not yet being founded. The head probably fell on to the "leads" of the Hall where a sentry was on duty, for it is known that guards were placed on the roof during the trial of Charles I. A fall to the ground would certainly break in pieces any skull, and would probably badly fracture an embalmed head, however leather-like the condition of the flesh. The fact is the head suffered only a slight fracture barely visible in the skiagram as a thin white line. The embalming in 1658 must have been very thoroughly done or the flesh could not have lasted nigh 300 years without falling to pieces, especially as for nearly a quarter of a century it was exposed to the weather. The greatest

damage was caused, not by the fall, but by the iron spike attached to the end of the pole on which the head was set up. The spike was thrust in so forcibly that it has split the skull from the place of penetration to the right border.

The head passed through several hands, and there is little doubt that it was one of the prized exhibits in Du Puy's museum as long ago as the year 1710, where Z. C. von Uffenbach, a German traveller, saw it and described it in his book as a "monstroses Haupt". It was next offered for sale to the Master of Sidney Sussex College, Cambridge, by a bibulous comedian, Samuel Russell, who believed that the Master might be disposed to purchase the head as Oliver had been connected with his College. The man's story was that after the head had been spiked some time, a high wind broke the pole on which it was fixed, and the head fell to the ground. A soldier going by early in the morning took it up and carried it home. The head being missed and supposed to have been taken away by some of Oliver's party, a considerable reward was offered for the discovery of the person who had it in his possession. This frightened the soldier and made him conceal any knowledge of it; when he died it remained with his family. The comedian married the soldier's granddaughter, who brought Oliver's head to her new home as part of her dowry. Dr. Elliston, the Master, seems to have been satisfied that the relic was genuine, for he declined to buy, fearing some prejudice might arise against him.

The "comedian" can hardly have been other than Samuel Russell of Keppell Street, said to be a descendant of Cromwell, an impecunious strolling actor of drunken habits, who at one time exhibited the head in Butchers' Row, a block of houses then running from the east end of St. Clement Danes in front of the present Courts of Justice, and dividing the Strand into two narrow passages. Russell, probably in order to obtain testimonials to support his claims for the head, submitted it to expert examination. In this way it passed through the hands of Richard Southgate, the numismatist, who became Assistant Librarian to the British Museum in 1784, and John Kirk, the medallist, both of whom declared it genuine. Another sponsor was Sir Joshua Reynolds, who had temporary possession of the head in September, 1786, for a newspaper cutting of that date states, "Sir Joshua Reynolds has had the good fortune to procure the curious head of Cromwell which is to be shown to his Majesty George III." Another relic once owned by the great painter was the Marquis of Crew's miniature of the Protector, and Sir Joshua's interest in Cromwelliana may be traced to the fact that his wife was connected with the Cromwell family.

Sir John Bankes was invited to see the head but he refused to look upon the remains of one whom he called "that old villainous Republican", the mention of whose name made his blood "boil with indignation". Forty years afterwards the same request was made, but time had not tempered his mood, for Cromwell was still to him the "old villain" who even in death could rouse his ire to boiling-point.

Russell seems to have been greatly attached to the head, and it was with "infinite reluctance" that he surrendered it to James Cox, who waited seven years to acquire it and had advanced several sums of money before his wish materialized. Canon Wilkinson has the deed of assignment to Cox from Russell which reads "for the sum of £101 heretofore advanced to me and for a further sum of £17, I deliver the head to the said James Cox". This James Cox was a jeweller and highly ingenious mechanic of Shoe Lane. He received the head from Russell and purposely concealed it to prevent the trouble of incessant applications which he thought would be made for a sight of it. But he or former owners were not sufficiently vigilant to preserve the head from mutilation; there is a family tradition that when the Protector's relations and friends were occasionally admitted to see the exhibit, they took the opportunity to pilfer such small parts as were least likely to be missed. The absent ear is said to have been taken away by one of the Russells of Fordham.

The value of the head continued to soar, and Cox made a hundred per cent profit when he sold the relic for £250 to three brothers, who sought to recoup themselves by showing it to the public, and here John Cranch, "a person of poetic nature", comes into the story. He was the painter of a picture, "The Death of Chatterton", and he acted as advertizing agent when in 1799 the head was publicly exhibited at Mead Court, Old Bond Street, "where the Rattlesnake was shown last year. Admission half a crown", says the advertisement in the *Morning Chronicle* of the time. Here the resentful Russell appeared one day and so stirred the feelings of a mob that it threatened to wreck the house, by declaring that he had been "juggled" out of the head of his famous ancestor while he was inebriated. Cranch's task was to boost the head and prove it to be genuine, and to this end he was specially desirous of linking up the relic with the Russells of Fordham. To stimulate public interest he wrote a *Narrative Relating to the Embalmed Head of Oliver Cromwell*, a pamphlet of twenty pages with a beautifully executed title-page, of which 250 copies were printed; its chief interest to-day is its rarity—there is no copy in the British Museum Library. A letter by Cranch, in the

possession of Canon Wilkinson, reveals that he was a man ready to surrender truth to expediency. He says "a plausible derivation of the head must be made out, and though not accurate it may equally avail for our purpose"; wherefore his *Narrative* should be read with caution.

The exhibition apparently was not a monetary success, for the proprietors never paid Cranch money due to him, and in consequence, papers relating to the head, deposited with him as security, remained in his possession. A number of these documents were taken to America by a descendant, and the remainder were procured by Mr. Josiah Wilkinson when he purchased the head in 1815 from the daughter of the last of the showmen-brothers. Mr. Wilkinson in his "Narrative", which was read at Royal Archaeological Institute in 1911 by his great-grandson, states that these three men suffered violent deaths, the last, a friend of his, having fallen in an apoplectic fit from the horse he was riding. The tragedies did not deter Mr. Josiah Wilkinson from adopting the relic and finding pleasure in demonstrating that it had really belonged to Cromwell.

In the Wilkinson period, *i.e.* since 1815, the relic has had several resting-places, first at Sandgate, afterwards at Hill House, Seabrook; Shortlands, Kent, and Frankfield, Seal Chart. While at Shortlands it was in the care of a Mr. Wilkinson, then M.P. for Lambeth. An attempt was made in 1910 to purchase the head for the nation, but a testamentary clause states that it must not pass out of the Wilkinson family.

Miss Maria Edgeworth, who was shown the head by Josiah Wilkinson, was quite just when she called it a "frightful" object. Its appearance is rendered still more repellent by a profusion of pimples, indicating a general disorder probably of the sebaceous or sweat-glands, of which the "wart" was a larger and more defined manifestation. But these blemishes are highly important as evidence that the head cannot be other than that of Cromwell, for there is supporting testimony by the Protector himself when he said, "Mr. Lely, I desire that you would use all your skill to paint my picture truly like me, and not flatter me at all, but remark all my roughnesses, pimples, warts and everything; otherwise I will never pay a farthing for it". None of the surviving portraits shows these spots except the wart, but they do appear on a Cooper miniature in the possession of Lady Payne-Gallwey, though much less marked than those of the embalmed head. This difference may be explained if we suppose that the interior of each swelling is composed of a tiny pellet of calcareous matter, which would naturally remain hard and prominent as the surrounding skin

dried and assumed a lower level. In old age Oliver was a very coarse-looking man owing to care and exposure to the weather as a soldier. Samuel Butler did not spare him when he wrote, "Cromwell wants neither wardrobe nor armour, his face is naturally buff, and his skin may furnish him with a rusty coat of mail; you would think he had been christened in a lime pit, tann'd alive, and his countenance still continues mangy".

The head has actually been fitted into the broad-brimmed Long Parliament hat once worn by Cromwell. In the *Weekly Dispatch* of June 17th, 1821, we read, "Mr. Cromwell of Cheshunt has now in his possession the hat of his ancestor Oliver Cromwell, by which the skull supposed to be the Protector's has been tried and no doubt is now entertained of its identity". This Mr. Cromwell of Cheshunt was the great-grandson of Oliver and the last descendant to bear his name.

Cromwell's head-length in life was about 200 mm., with a breadth of 160 mm., giving a circumference of 567 mm., which is not a remarkably large size. The hat would be worn slightly smaller than the head measurement or it would slip down on to the ears, and therefore, deducting 15 mm. for this difference, a closed band of 552 mm. was despatched to the Rev. Paul Cromwell Bush, who now owns the relics, with a request for a report on the degree of fitting of the band to hat and helmet. He replied, "As to the Protector's helmet the band goes into that with a good margin, but much of the original lining has perished. In the case of the Long Parliament hat the band easily fits in with a small amount to spare. Whether the hat originally had any sort of lining, I do not know. If so, and allowing for the hair as well it would have been a tight fit". This statement may be held to support the history of the head, for if the band had proved too large the head could not have been that of Cromwell.

The brain was well above the average, but not exceptional in size; certainly it could not have weighed 6½ lb., as estimated by a German writer. Skiagrams of the cranium show a condition of "osteoporosis", characterized by whitish spots scattered irregularly over the vault of the skull. These spots are not abnormal; they increase in number with advancing age and are rather more frequent in the insane. Cromwell was not insane, but the skull shows more than the average number of white spots, and it may justly be said that at various times he was mentally queer.

The second part of Pearson and Morant's work deals with the methods employed and material examined in their attempt to arrive at a definite conclusion

regarding the alleged head of Cromwell. In the case of a painting the head was photographed in the same pose as that on the canvas, and then in each case a drawing was made of the picture and the appropriate photograph of the head fitted to this by making some one dimension identical in the two, and using, when it seemed advantageous, a Corade precision pantograph to change proportionately the photograph of the head. The result of this work was to bring to light a surprising difference in portraits of Cromwell owing to the artistic individuality of the painters. Not only did the artists have diverse conceptions of the man, but different portraits by the same artist were, for the purposes of measurement, incompatible one with another. This irregularity is partly due to the relative positions of painter and subject. If the painter stands and the subject sits, then, especially in the case of baldness, the painting shows a high brow. If the painter is below his subject the reverse may be the case. This point was brought out when comparing the solid head with a flat drawing or portrait. To obtain a true photograph of a picture it was first necessary to place the lens of the camera as nearly as possible in the position of the eye of the artist who painted the picture. The difficulty of adjusting the head to the position in which the painter had viewed the subject, the cost of repeated photographs, the need for protracted labour and caution in posing the head for photography, as well as the great differences in the paintings themselves, led finally to rejection of this method of testing the genuineness of the Wilkinson head in favour of a more detailed study of the masks and busts. But before doing so it was decided that with time and patience it would be possible to adapt the photographic reproductions to the portraits, and that the work so far had revealed no grounds for discrediting the possibility of the head being that of Cromwell.

In the case of the Wilkinson head, bony landmarks are obscured by the leather-like skin, and therefore exact readings correct to a millimetre are impossible to obtain. The lip-nec—*an important point for measurement*—is broken away on one side and shrunken on the other, and the lower jaw is slightly out of position by the forcing of the spike through the head and top of the skull. Fortunately a constant factor is present in the site of the "wart", which in life was just above the inner portion of the right eyebrow. The wart has disappeared, but its position is plainly visible by a marked depression in the skin of the forehead. Other points fairly easy to determine on the head are the former position of the pupils, the outer margin of the orbit, the root of the beardlet, and the gnathion, *i. e.* the point of bone between the two upper central

incisor teeth. With these points as a foundation it was possible to make tracings of the facial outlines of the head to place upon photographs of the available busts and masks of Cromwell, and it has been found that there is no measured character of the head which can be produced as evidence that it is not that of Cromwell.

In conclusion, there is no doubt that the body of Cromwell was exhumed from the Abbey, for the mason's receipt for fifteen shillings may still be seen, and a facsimile of the copper name-plate found on the breast of the corpse is in the possession of Prof. Karl Pearson. The remains, minus the head, were buried at Tyburn, but it is impossible to prove the truth of the story that his corpse was subsequently transferred to Newburgh Priory until the tomb there is opened; unfortunately, permission to do this has been withheld. If they are not alien one to the other the fitting of the head to the body would be an easy matter, the authenticity of the head would be completely established, and it should dispose of the story that when Barkstead, Lieutenant of the Tower of London, asked Cromwell where he would be buried, he answered, "At Naseby, where I obtained the greatest victory and glory", which accordingly was performed. At midnight, soon after his death, being first embalmed and wrapped in a leaden coffin, he was conveyed in a hearse to the said field and quickly buried. Soon after care was taken that the field was entirely ploughed up and sown three or four years in succession with wheat.


Against the idea of fraud is the condition of the head. What would induce the forgers to destroy the lips, break down the nose, and shake out the teeth?—for, excepting two molars, these have been lost since death. An attempt would certainly have been made to restore the hair to its natural brown from the pale yellowish, reddish hue consequent on exposure to the elements; all these characters, if properly treated, would have been of service to give greater resemblance to Cromwell. Further, it is impossible to think of any head of a seventeenth century person of distinction fulfilling the conditions imposed in this investigation other than that of Henry Ireton, but he is excluded by the frontal breadth and age at death of the Wilkinson head, of which Sir Arthur Keith has written, "This is the skull of an oldish man". There is no other instance of a head being embalmed and then spiked, the two circumstances being the extremes of honour and disgrace; Oliver was embalmed as a king and spiked as a criminal. The documentary history of the head, except for the years between its fall and reappearance in Du Puy's museum in 1710, is practically complete. None of the measurements made during the examination

militate against the probability that the head is Cromwell's, and further support is present in the profusion of pimples which, although suppressed in the portraits, are proved to have existed by the Payne-Gallwey miniature. Finally there is the site of the famous "wart" plainly to be seen, and this should suffice to clinch the matter in the mind of the most sceptical.

Prof. Karl Pearson and his colleague have conducted this inquiry without bias, and with a disregard of the positive opinions expressed in the past, but they feel themselves unable to *demonstrate* that the head is what it purports to be because of the hiatus in its history. With the caution of true scientists they content themselves with the statement that "it is a moral certainty, drawn from the circumstantial evidence, that the Wilkinson head is the genuine head of Oliver Cromwell, Protector of the Commonwealth".

S. WOOD.

A FRACTURE TRACTION PIN INSERTER.

 THE insertion of Kirschner wires or Steinmann pins for the purpose of providing a means of traction in the treatment of fractures of long bones has always presented a varying amount of difficulty. It is for this reason that drilling sites are almost universally limited to the tuberosity of the tibia, condyle of the femur or calcaneus on account of the certainty which their anatomical landmarks provide, and because of the absence of major nerves and vessels at these sites. These positions are customarily chosen, regardless of the actual site of fracture in the particular limb.

It is often, however, especially advantageous to locate the wires near the site of the fracture, but to do this successfully a satisfactory means of accurate drilling becomes a matter of first importance. Obviously, this is of special significance in the areas of the limbs where—

(a) There is great disproportion between soft tissue and bone, *e. g.* the upper part of the thigh, or, in cases of excessive oedema, at the site of the fracture. In these situations it is only with great difficulty, often insurmountable, that the bone can be palpated, so that not infrequently a second attempt at drilling becomes necessary. The evils attendant upon hit-or-miss drilling need no comment.

(b) Important nerves or vessels occur, and are, therefore, subject to injury. With regard to these it may be said that all sites are vulnerable except where the bony prominences are subcutaneous.

But even there the insertion of a wire is not entirely free from danger, for as the drill progresses forward it may, owing to its flexibility, deviate from its intended course, and upon its emergence from the bone pierce an adjacent structure, *e. g.* the synovial membrane of a joint or the epiphysal line.

The device which is about to be described has been designed with a view to rendering the task of accurate drilling in any situation whatever, so simple as to be within the scope of those having a minimum of experience. It goes without saying, therefore, that, if this aim is achieved, at least one aspect of the treatment of fractures will have become greatly simplified.

In a subsequent paper I propose to describe a newer mode of treating fractures, in which the use of the inserter forms an important accessory, but it is hoped that the present description may create sufficient stimulus among those who have occasion to deal with fractures, to consider the use of the inserter in all cases where insertion of a traction wire or pin is indicated. It will be shown that although the device will enable drilling to be done through a limb at a pre-determined point on the bone within an accuracy of 1 mm.—regardless of the disparity between diameters of limb and bone—and that this, moreover, can be accomplished with the practical certainty that no nerves or vessels will be injured, the entire operation can be executed by an unskilled and inexperienced surgeon in less time than it usually takes for such an operation done in the ordinary way.

Thus the insertion of a wire through such vulnerable places as Hunter's canal or anywhere along the sulcus of the humerus is somewhat robbed of its terrors—even for surgeons with small experience.

The device operates as follows: The patient is placed upon the X-ray table with the limb placed between uprights A and B, and with the slot C about in line with the transverse plane of the limb, through which the wire is to be inserted. By the means of nut D (Fig. 1) the two uprights are now drawn together so that the limb comes to be clamped quite tightly between them.

On the X-ray screen, there will be seen in the slot of the upright an opacity due to the bone in strong contrast with the soft tissues of the limb. The metal pointer E is then slid vertically along its guide until it lies opposite the point through which the drilling is to be done.

The metal pointer is left in this position (Fig. 2) and the X-rays are turned off. With the lights on, a longitudinal skin incision about 1 cm. long is made along the top margin of the metal pointer. Guide F (Fig. 3) is then lowered down the slot until the engraved arrow at G coincides with the top margin of the metal pointer.

When these two are lined up, thumbscrew H (Fig. 4) is used to tighten guide r into fixed position.

Using hole K as a guide, a modified trocar and canula are inserted as a unit, and gently but firmly pressed, successively, through the skin incision previously made, and through soft tissue until periosteum is reached,

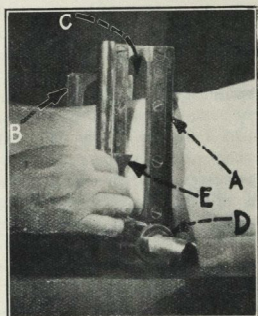


FIG. 1.

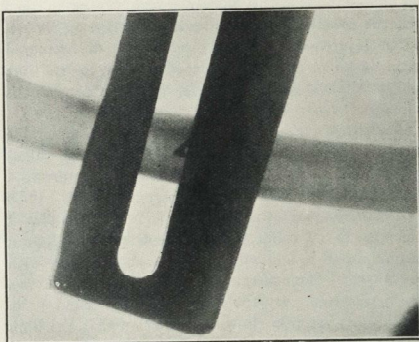


FIG. 2.

when bony resistance will be obvious. In this position the canula is tightened in place by thumbscrew r. After this the trocar is unscrewed and withdrawn (Fig. 4). Should any hæmorrhage have occurred during this process, the canula will at once reveal it. However, to avoid damage to nerves and vessels as far as possible, the trocar is made with a blunt, rounded end, so that it will push aside these structures as it progresses towards the bone.

With the canula fixed in position, and its pointed end lying against the surface of the bone, the Kirschner wire or other drill attached to the electric motor is now inserted into the bore of the canula and pushed along until it touches bone. In other words, the drill is

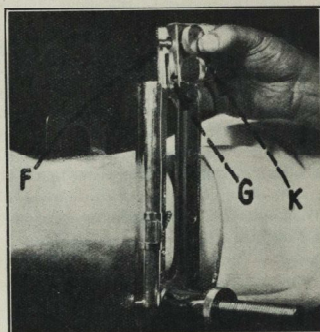


FIG. 3.

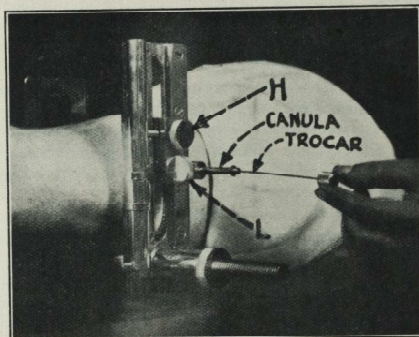


FIG. 4.

inserted to replace the trocar. Current is then applied and drilling is proceeded with in the usual way. It is clear that the canula serves as a positive guide and support for the drill, so that the latter must pursue a predetermined course.

Immediately after the drill has pierced the opposite wall of the bone it is best to shut off the current, remove the drill from its socket, and then gently tap the drill until it emerges through the opposite part of the limb.

Having thus inserted the wire, the device is readily removed from the limb by means of a wing-out, which releases the back upright B, thereby dismantling the entire apparatus.

A series of experiments carried out on cadavers have quite clearly established the foregoing statements, and it should be added that as a result of these experiments certain refinements have been incorporated which have rendered the machine in its present form a very efficient one. Of these, the most interesting feature is due to the suggestion of Sir Charles Gordon Watson. By virtue of this addition it is possible to locate the desired position on the bone almost instantly, even when the bone has undergone greatly rarified changes.

A. W. SCHENKER.

DE BALNEIS.

IT is a hallmark of this unenlightened age that uselessness is no longer a virtue; that an unproductive act is not thought highly of; that the ceremonies of the past are fallen in abeyance, and no more sought after for their own grace; and that there must be utility in everything.

There was a time when great gentlemen were known by the prodigious length of their finger-nails, and when forms and ceremonies were loved for their own sakes, and for their spiritual benefits, and when beauty was not prostituted to use. But to-day this wanton lust for utility bids fair to corrupt even the most innocent and salutary of pleasures (when they are of a sensuous and an æsthetic nature) to mere purposeful exercises. In short, the art of graceful living is dead. And of all the cultivated legacies left us by millennia of wisdom, it would seem to me that the most abused has been that of the bath.

In the days of Imperial Rome the patrician might vacillate between the rival attractions of the baths of Titus, Domitian, Trajan, Caracalla, or Diocletian; and pass languidly from being disrobed in the apodyterium, to be oiled in the alipterium, heated in the caldarium, steamed in the sudatorium, tempered in the tepidarium, and eventually frozen in the frigidarium. Such were the polysyllabic ablutions of a Cæsar.

But what of these unhappy days? With the decline of the *auto-da-fé* we see the rise of a thousand perversions and a thousand heresies; and these latter, restraint being absent, vary from the Salvation Army to a misconception of the purposes of bathing.

For there is a vulgar heresy which holds that the taking of baths has something to do with personal hygiene, and that an argument for bathing may be discovered in that other heresy, no less vicious; I mean,

"That Cleanliness is next to Godliness". The wicked fallacy of such an uncultured delusion it is but barely necessary for me to expose, so patent are its errors, and so flimsy are the foundations upon which it rests.

The basal hypothesis, however, of the "bath-washing" school would seem to be "that hot water will remove dirt". They might argue with equal point and validity that dancing will develop the leg muscles, or that the consumption of *pâté de foie gras* will ward off xerophthalmia, in that it is rich in vitamin A.

Indeed it is a merry conceit, of which Juvenal might have been glad, and one that would have caused many an imperial cheek to mantle, by the bitter and insulting suggestion that it conceals. For in the eyes of the bath-washer, he who goes most often to the bath must have most need of washing. And what, pray, would have been the feelings of a Roman gentleman in his tepidarium had it been suggested to him that he were there to cleanse himself?

So much for the abuse of baths. But what of their true and pleasant usage? The bath should, of course, be as hot as may comfortably be borne, and towels should be spread in profusion about the floor and upon some nearby seat, that the bather may step and sit upon them when he eventually leaves the water.

Eventually—for I count him but half civilized who lingers in his bath less than a round hour. Indeed, in so doing, I cast an undeserved slight upon those aborigines who may barely be counted "half civilized", and yet may be seen luxuriating in hot springs not for a mere hour, or for two hours, but from the rising of the sun even to its going down. Thus does Nature teach her children what civilization would rob them of.

The custom of reading in the bath is one that must be tempered with much discretion, for to read mere novels in such a place is like putting whisky in wine, or water in whisky. The books which I consider may be read in these pleasant circumstances are the sermons of John Donne; Shakespeare's sonnets, so long as they be in a small volume; the letters of Madame de Sevigné, with the same proviso; Oscar Wilde's play, "Salomé", in its original hypnotic French; and certain of the ancients, be they slender, as Petronius or Apuleius; indeed, I know of naught so pleasing, so diverting, and withal so apposite, as the "Satyricon".

Two other factors remain for the perfect enjoyment of a bath. The first is the complete scratching of the body with a stiff brush—a pleasure to which Napoleon, a great devotee of the bath, was most partial—and which had its Latin counterpart in the *strigiles*, or scrapers, of the public therma.

The other factor comes after all else. After you have made concentric ripples, after you have made a pleasant

desert island of your abdomen, and played with hydrostatics, Archimedes like, after you have at last extracted the plug with your great toe, and felt the delicious suspension of your body slowly subside into the golloping suction of the sink, then, and then only, you must arise and indulge in the maddening delights of an icy shower—a relic of the Roman *frigidarium*. As Keats swallowed cayenne pepper that he might the better appreciate cool claret, so must the complacent bather pass from the equatorial pleasures of the bath to the arctic joys of the cold shower.

I have said enough, perhaps, to discredit the horrid "washing" theory. Indeed, that the bath was essentially a sensuous institution may be seen in the double meaning of the Italian word "bagnio". And if the mansions of the ancients were equipped with pleasure baths, yes, even to the palaces of Cossus and of Phaistos, I am unable to see why the modern dwelling should be furnished more with a wash-tub than with a pool fitted for the delights that may be practised in it, and even on occasion dare to hope that when our royal virtue gives way to a more sovereign beauty, we may see again the lacteal excesses of a Poppæ Sabina, or of a Mary, Queen of Scots.

From the days of Agamemnon, when a man bathing might perish at the hands of an adroit Clytemnestra, to those of Marat, when the same fatal dagger was wielded instead by a mere political theorist, to our own modern degeneracy, when young men so frequently manage to asphyxiate themselves with complicated caliphants, the dark wings of the Angel of Death have cast their fatal shadow upon the bath.

And yet I am at one with Seneca, who, when his veins had been opened by the order of Nero, elected to lie in his hot bath, tasting to the end the crimsoned pleasures of a warm and happy enervation. I, too, would wish, above all things else, to die in my bath.

G. FLAVELL.

ACKNOWLEDGMENTS.

We acknowledge with thanks the following contemporaries: *The Guy's Hospital Gazette—The King's College Hospital Gazette—The London Hospital Gazette—The Middlesex Hospital Journal—The St. George's Hospital Gazette—The St. Mary's Hospital Gazette—The St. Thomas's Hospital Gazette—The University College Hospital Magazine—The Epsomian—The Hospital—The Queen's Medical Magazine—The Royal Dental Hospital Magazine—The Student—The Clinical Journal—The Medical Times—The Calcutta Medical Journal—The Sydney University Medical Journal—The University of Toronto Medical Journal—The East African Medical Journal—The Postgraduate Medical Journal—The General Practitioner of Australia and New Zealand—The Giornale del Reale Società Italiana di Medicina—L'Écho Médical du Nord—Revue Belge des Sciences Médicales—The British Journal of Nursing—The Nursing Times—The Leprosy Review—The British Journal of Venereal Diseases—The Caduceus—Charing Cross Hospital Gazette—The Magazine of the London Royal Free Hospital—Speculum—University of Leeds Medical Society Magazine.*

TRIOLOGY.


DR. GEOFFREY EVANS
borrows his logic from JEVONS:
he believes that the health of the nation
is being undermined by constipation.

MR. GEOFFREY KEYNES
is justifiably renowned for the endless pains
which he is known to take
when writing about BLAKE.

DR. GEOFFREY BOURNE
is torn
between cardiography and "patience"
as recreations.

ST. B.H.P.

(Lines written on hearing a rumour that the Hospital
Pharmacopœia is being revised.)

 TIME, from whose clutches none are free
'Lays hold upon St. B.H.P.

O'er those pages (so 'tis said)
Progress rears her ugly head.

Each prescription now must face
The dread blue pencil of Disgrace.
Revisers! though the rest must go,
Tampers not with H.S. Co.!

E.M.C. O.M. must stay
Lest London's children waste away.
Hst. Gent. c Rheo still must be
A boon to the perplexed H.P.

Lotio Plumbi let us save,
Take not Ung. Hyd. Oxid. Flav.,
Pause and ponder ere you throw
Into the limbo H.S.Co.

Coll. Alk.'s healing virtues sound
All the Universee around.
En. Sap., too, and En. Fel. Bov.
Sisters still think kindly of

Abandon not with undue haste
Lot. Cal. Co. and Unna's Paste.
Leave us Ung. Hyd. Ammon. Dil.,
H.S.Co., be with us still!

Learned physicians, dispensers wise,
Meeting in conclave to revise,
Think twice before you expurgate;
Take heed, before it is too late!
If sacrifice there yet must be,
Hear, we beg you, this, our plea—
Take H.S.A. or L.S.O.
But spare, oh, spare us H.S.Co.!

Φ.

CLINICAL METHODS.

DIRECT LARYNGOSCOPY AND LARYNGEAL INTUBATION.

TECHNIQUE.

- (1) Position of the head: The cervical spine must be flexed, notwithstanding the well-meant efforts of the orderly or assistant to extend it. The head is now extended at the atlanto-occipital joint. An assistant should hold the head in this position, in which the vertex is about 3 in. above the level of the table.
- (2) Hold the laryngoscope by the cross-bar in the left hand. Do not grasp it by the vertical handle. With the fingers of the right hand separate the lips and jaws at the right side of the mouth.
- (3) Slide the laryngoscope along the right side of the tongue until the tip of the epiglottis is seen.
- (4) Pass the lip of the laryngoscope behind the epiglottis for about 1 cm., then lift the laryngoscope forwards as though lifting the patient's head from the table. This will give a good view of the larynx, and the blast of expired air will be heard and felt.
- (5) Introduce the endolaryngeal catheter. At the moment of introduction lift strongly on the laryngoscope. On no account must leverage be obtained on the top teeth, as is so often done. The larynx must be exposed by a lifting movement, and not by rotating the tube with the upper incisors as a fulcrum.
- (6) The expiratory blast at the end of the catheter is unmistakable.

CAUSES OF FAILURE.

- I have observed the following to be the most common causes of failure or delay.
- (1) Faulty position of the head: This is universal. Preparation for exposure of the larynx often takes the form of hyper-extension of the neck, thus increasing the angle between the pharynx and trachea, which can easily be abolished by flexion of the cervical spine, the head being extended at the atlanto-occipital joint in order to avoid pressure on the upper teeth.
 - (2) The laryngoscope is introduced in the mid-line. This greatly increases the difficulty of the manoeuvre, as the strong and muscular dorsum of the tongue and the upper incisors are both encountered.
 - (3) The tip of the epiglottis is not identified, the laryngoscope being introduced too far, so that when lifted forwards it is engaged behind the arytenoid cartilages, thus exposing the upper end of the œsophagus, which is mistaken for the glottis.
 - (4) The tube having, as a result of the last manoeuvre, been inserted into the œsophagus, the operator listens at the end of the tube, and on feeling small expiratory puffs of air, assumes that the tube is in the trachea. This is a common fallacy. The œsophagus undergoes respiratory changes in its lumen which will be registered at the mouth of any tube which has passed the cricopharyngeal sphincter. The strong expiratory blast at the mouth of the tube when placed in the trachea is unmistakable.
- In conclusion: Profound anaesthesia is unnecessary if the procedure is to be short, as it will be if correctly carried out. No force is permissible when dealing with a delicate organ in an anesthetized patient.

S. E. B.

STUDENTS' UNION.

The following are the results of Club fixtures for the season 1935-36:

RUGBY FOOTBALL CLUB.						
	Played.	Won.	Drawn.	Lost.	Points for.	Points Against.
1st XV	26	6	1	19	113	275
A XV	23	15	2	6	278	137
Extra A & XV	15	4	1	10	152	68
β XV	8	3	0	5
B XV	18	12	1	5	284	62
Extra B XV	6	0	1	5	35	107
C XV	8	4	0	4	68	85

ASSOCIATION FOOTBALL CLUB.

	Played.	Won.	Drawn.	Lost.	Goals for.	Goals against.
1st XI	26	16	1	9	80	51
League results	10	9	0	1	43	0
2nd XI	23	12	2	9	74	52
3rd XI	9	1	1	7	19	47

HOCKEY CLUB.

	Played.	Won.	Drawn.	Lost.	Goals for.	Goals against.
1st XI	22	7	11	4	59	39
2nd XI	15	6	6	3	40	39
3rd XI	6	0	0	6	8	35

Junior Cup Final v. Guy's Hospital. Lost 4-3.

HOCKEY CLUB.

At Easter the Hockey XI was among twenty-two teams who took part in a tournament at München Gladbach, an industrial town near Düsseldorf. There was a Belgian, a Spanish and two other English teams, the Old Felstedians and the Chiswick Wagtails (who proved to be female). The rest were German.

Four matches were played and the results were as follows:

Good Friday: v. Preussen Duisberg.	Lost, 7-1
Saturday: v. Deutscher Düsseldorf.	Won, 4-3
Easter Sunday: v. München Gladbach.	Lost, 2-0
Easter Monday: v. Düsseldorf Hockey Club.	Lost, 4-2

Of the sound defeat on Friday one can perhaps plead in mitigation on all night train journey, coupled with lack of knowledge of the terrain, while the victory of the following day against a team who prided themselves upon their high standard can best be explained in terms of the quantities of beer consumed on the previous evening.

Indeed it is a matter for debate whether we enjoyed ourselves more off the field than on it—probably the former—and many of the incidents of the week-end will remain happily in our minds. For our hosts were extremely hospitable, and when the conversation turned inevitably to politics there was evinced towards the English nation a spirit of *kämmerdschaft* which was as gratifying as it appeared to be genuine.

The following composed the team: M. E. Moore, R. E. Ellis, A. D. Messent, E. O. Evans, E. J. Griffiths, R. N. Grant, R. A. Rafferty, R. A. House, R. Heyland, P. G. Hill, T. M. C. Roberts, J. B. Franklin.

FENCING CLUB.

The 1935-36 season should prove an important landmark in the history of the Club. This was formed three years ago by three enthusiasts who comprised the team, the Club and everything connected with it; it was due to very great energy on their part that the match results were so remarkably good. Since October, 1935, the services of an instructor have been acquired, and at present the membership stands at twelve. The burden of constant match play has been lifted from the shoulders of the original three and the performance of the beginners is extremely satisfactory. The match results to date are as follows: Fought 16, won 9, drawn 1, lost 6.

The Club was a keenly contested match against Croydon F.C. by 14-13, and they did extremely well to beat the R.M.C. at Sandhurst by 10-8. The return match was lost by 6-12, so the next meeting with this Club should be interesting. The first match against London Hospital was lost by 6-21, and in the return match the Club was only narrowly defeated by 13-14. It is therefore incumbent upon the Club to make a supreme effort next time.

At a General Meeting in the near future measures will be taken to develop and extend the activities of the Club, and in this respect it is essential that the membership should be still further increased. The nucleus at the moment shows enough promise to assume that if the Club is supported with energy and enthusiasm St. Bartholomew's Hospital will take a place in the front rank of Hospital fencing.

UNIVERSITY OF LONDON O.T.C.

The Medical Unit Field Day will take the form of a tour of the R.A.M.C. establishments at Aldershot, and will afford an excellent opportunity for a survey of the methods of administration and sanitation employed by the R.A.M.C. The tour will include visits to the Army schools of hygiene and physical training, and the Military Hospitals. Further details will be posted when available. During the week-end May 29th to June 1st the Whistun Camp will be established near Princes Risborough. Railway warrants will be issued free on application to H.Q.

REVIEWS.

TEXTBOOK OF GYNECOLOGY. By WILFRED SHAW, M.D., F.R.C.S., F.C.O.G. (J. & A. Churchill, Ltd., 1936.) Pp. 588. Figs. 238. Price 17s.

In the preface to this book the author states that "it is intended for the use of students presenting themselves for qualifying examinations", and he adds that "it may also be of service to practitioners". We have therefore conceived the notion of having it reviewed by such a student in collaboration with a practitioner. For the merit of a book such as this lies not so much in the subject-matter as in its "understandability".

It is a very readable book, and the author has contrived to disguise the systematic way in which it is written in a most attractive manner without detracting in any way from the value of the book as a work of reference. It is set forth in classical style: that is to say, the first hundred pages deal with anatomy and physiology, the importance of which is justifiably stressed by Dr. Shaw, and then follow chapters on malformations, infections and growths of the component parts of the female genital tract, together with sections dealing with disorders of menstruation, prolapse and diseases of the adnexa. There is a useful chapter on radiological treatment in gynaecology, which details clearly the methods in use, but is a little chary of assessing their value.

In the description of individual conditions pathology features prominently, and treatment especially is dealt with in great detail and with extreme thoroughness. It is a far better text-book than any we have previously seen on gynaecology, and Dr. Shaw is to be congratulated on providing the medical student with such an excellent addition to his book-shelf. We have heard much praise of this book from those who have already purchased it, and have no hesitation in strongly recommending it to others.

THE EVACUATION OF SURVIVAL IN PULMONARY TUBERCULOSIS. By SIR PERCIVAL HORTON-SMITH HARTLEY, C.V.O., M.D. (Cantab.), F.R.C.P., R. C. WINGFIELD, M.B. (Oxon.), F.R.C.P., and V. A. BURROWS, F.I.A., F.S.S. Reprinted from *Brompton Hospital Reports*, vol. iv, 1935 (53 pages). (Gale & Polden, Ltd.)

A series of 8766 cases treated at the Brompton Hospital Sanatorium, Frimley, which comprises the admissions to the Sanatorium between 1905 and 1937, has been followed up, and results of treatment have been submitted to careful statistical analysis. The results of this study are of value in view of the large number of cases included in the series, and certain conclusions emerge. Firstly, that the prognosis of an average case of pulmonary tuberculosis has not materially changed during the past thirty years, but that in a selected class, modern treatment by artificial pneumothorax has considerably improved the outlook. The bulk of the patients, however, do not come into this group. Secondly, statistical evidence is quoted to show that the mortality of patients who have had the advantage of a course of sanatorium treatment is lower than that of members of the general population suffering from pulmonary tuberculosis, and the authors consider this to be the first occasion on which statistical evidence has been produced to show the value of sanatorium treatment. No figures relating to the effect of gold therapy on the course of the disease have been produced—an omission which might well be rectified in a future publication. Finally, there is the very startling statement that pulmonary tuberculosis must be regarded as in many cases a disease almost devoid of symptoms in its earlier stages. This contention is not supported by figures, but it is stressed by the authors, and must therefore be taken seriously. If it is true, then it does not seem possible that with our present methods of treatment we shall ever

achieve any great improvement on our present results, and in addition it would seem that both the general population and the medical profession are not to blame for the fact that cases so frequently come under observation in a comparatively advanced stage of the disease. In correct, this conclusion is most depressing, but it is so entirely at variance with clinical experience that definite statistical investigation would appear to be called for to decide the point.

TREATMENT IN GENERAL PRACTICE: THE MANAGEMENT OF SOME MAJOR MEDICAL DISORDERS. Republished from the *British Medical Journal*. (H. K. Lewis & Co., Ltd., 1936.) Price 8s. 6d.

Most people will remember the authoritative series of signed articles which appeared in the *British Medical Journal* in the first six months of last year. They have now been reprinted in book form to cover what the editor of the *British Medical Journal* in his preface calls "a limited but very important field of general medical practice". There are 35 articles in all, 14 dealing with diseases of the respiratory tract, 5 with acute specific fevers and 15 with cardio-vascular diseases. The 31 contributors are all clinical teachers in various medical schools, and five of the articles cover names especially familiar in this Hospital: Lord Jornder, Dr. Chandler, Dr. Bourne and Dr. Maxwell. A certain dogmatism in the setting forth of treatment is excused on the grounds that above all things the advice given must be practical and clear-cut. The editor hastens to exonerate any of his contributors who may object to being considered dogmatic.

I AND ME: A STUDY OF THE SELF. By E. GRAHAM HOWE, M.B., B.S. (Lond.). (Faber & Faber, 1936.) Price 7s. 6d.

In this series of six lectures Mr. Graham Howe, with the aid of many esoteric blackboard drawings, rediscovers the soul for the benefit of the Home and Schools Council of Great Britain, who must have been profoundly disappointed by not hearing all about Freud and Edipus. His fellow paradoxist, Mr. G. K. Chesterton, would probably tell him that the Catholic Church has anticipated him in this; and although Mr. Howe opens his lay philosophy by telling us that he "has no great interest in philosophy", and that "we have one foot in the grave and the other on a banana skin", we cannot but remember, when he insists upon our fundamental duality and its consequences, and upon the necessity for crying "Yes! Yes!" both to "good" and to "evil", that long ago Zarathustra also spoke thus. In happier days we would have given Mr. Howe the glory of burning at the stake for his chapter upon medicine and nursing—a chapter so fraught with perilous heresy that it is quite the best thing in the book.

DETACHMENT OF THE RETINA: OPERATIVE TECHNIQUE IN TREATMENT. By J. COLE MARSHALL, M.D., F.R.C.S. (Oxford University Press, 1936.) Price 7s. 6d.

The author commences by stressing the necessity for taking a careful history and fully investigating the patient before choosing cases suitable for operation. He explains the methods used for marking the position of the tear or detachment on the sclera, and emphasizes the importance of making careful drawings of the fundus both before and after operation; numerous plates and diagrams are inserted to show this. A detailed description of the various operations principally used at the present time and during the past five years then follows. The majority of the operations appear to have originated abroad. The after-treatment, complications and prognosis are also dealt with at some length.

The book is well written, and should prove useful to those for whom it is intended—namely, ophthalmic surgeons. It is not a book for students.

SURGICAL DISEASES AND INJURIES OF THE GENITO-URINARY ORGANS. By SIR JOHN THOMSON-WALKER, M.B., C.M. (Ed.), F.R.C.S. Second edition, revised. Edited by KENNETH WALKER, M.B., B.Chir., F.R.C.S. (London: Cassell & Co., Ltd.) Pp. xviii + 974. Price 32s. 6d.

The first edition of this book appeared in 1914, and the appearance of a second edition has long been awaited. This we owe to Mr. Kenneth Walker, who has revised the book with the help of the author, and brought up to date what is undoubtedly the best book

COLLEGE APPEAL FUND.

SUBSCRIPTIONS TO DATE

	£	s.	d.	*
Staff				
Demonstrators	13,204	1	4	(77)
Students	1,774	17	0	(72)
Old Bart's men	5,196	9	1	(521)
‡Bedfordshire	40	13	6	(8)
‡Berkshire	123	3	0	(16)
‡Buckinghamshire	82	4	0	(15)
‡Cambridgeshire	104	6	0	(18)
‡Cheshire	6	16	6	(3)
‡Cornwall	22	12	0	(8)
‡Cumberland	5	0	0	(1)
‡Derbyshire	19	14	0	(4)
‡Devonshire	575	1	0	(54)
‡Dorset	77	11	6	(14)
‡Durham	17	7	0	(4)
‡Essex	267	3	6	(23)
‡Gloucestershire	257	5	6	(29)
‡Hampshire	1,517	4	6	(59)
‡Herefordshire	17	12	0	(4)
‡Hertfordshire	91	18	0	(19)
‡Huntingdonshire	5	3	0	(1)
‡Isle of Wight	194	13	0	(13)
‡Kent	208	5	0	(22)
‡Lancashire	127	14	6	(16)
‡Leicestershire	142	0	0	(8)
‡Lincolnshire	61	9	0	(10)
‡Middlesex	497	14	0	(34)
‡Norfolk	178	0	6	(21)
‡Northamptonshire	50	14	6	(6)
‡Northumberland	161	1	0	(3)
‡Nottinghamshire	24	3	0	(5)
‡Oxfordshire	231	15	0	(22)
‡Rutland	1	1	0	(1)
‡Shropshire	38	1	0	(10)
‡Somersetshire	2,832	6	4	(28)
‡Staffordshire	194	18	0	(6)
‡Suffolk	331	0	6	(26)
‡Surrey	522	17	6	(61)
‡Sussex	750	2	6	(62)
‡Warwickshire	214	19	0	(24)
‡Westmorland	2	10	0	(1)
‡Wiltshire	1010	11	0	(12)
‡Worcestershire	161	1	6	(25)
‡Yorkshire	350	3	6	(29)
‡Wales	69	12	0	(20)
London	6,820	3	2	(225)
Channel Islands	20	0	0	(2)
Scotland	15	1	0	(3)
Abroad	119	1	0	(13)
South Africa	376	15	6	(20)
Canada	114	3	6	(8)
East Africa	87	12	0	(10)
West Africa	146	10	0	(5)
India	207	12	0	(13)
Ireland	25	4	0	(4)
North Africa	1	0	0	(1)
North Borneo	10	10	0	(1)
Australia	122	2	0	(6)
China	52	8	4	(9)
Siam	10	0	0	(1)
France	50	0	0	(1)
British West Indies	65	8	0	(7)
Straits Settlements	7	1	0	(3)
New Zealand	0	1	0	(3)
Services	649	14	0	(48)
Others	71,345	3	1	(562)
Lord Mayor's Appeal	17,900	16	0	
Funds of College	5,000	0	0	
Value of Building	20,000	0	0	
	£154,381	8	10	

* Number of Bart's men subscribing. † Number of Bart's men in County. ‡ Counties with Secretaries.

of its kind not only for the general practitioner, but for the genito-urinary expert.

The form of the book has, of course, been maintained, and four new chapters by Mr. Walker have been added on renal function tests, transurethral operations, obstruction at the bladder neck and impotence and sterility. In the first of these a clear account is given of the methods of pathological investigation of the urinary tract, and particular emphasis is laid upon possible fallacies in the urea concentration test, the wide limits of "normality" in the interpretation of urea clearance, and, above all, the paramount importance of correlating the information obtained from these investigations with the clinical findings. In the chapters on enlargement of the prostate and transurethral operations an account is given of Harris's technique as well as the author's, and there is an excellent discussion of the complications of the operation and results and failures of prostatectomy; the account of perineal resection then brings up to date the description of operative procedures in use and the illustrations are admirably clear.

Throughout the book, in fact, the reader must be impressed with the excellence of the figures and plates, and the reproduction of pyelograms and X-rays is very clear. The slight increase in the size of the book is thus more than compensated for by the maximum convenience size, which should remain unchanged in future editions, whose appearance is assured by its very widespread popularity.

ELEMENTS OF PLANT BIOLOGY. By A. G. TANSLEY, M.A., F.R.S. Second edition. Revised by W. O. JAMES, M.A., D.Phil. (London: George Allen & Unwin, 1935.) Price 10s. 6d.

We welcome a new edition of this excellent text-book by Prof. Tansley—a book in which biological principles are clearly and adequately explained without undue emphasis on technical detail. The volume has been considerably revised and modified to suit the botanical requirements of students working for the First Medical Examination of the Universities of Oxford, Cambridge and London. The revision has brought the facts entirely up to date, while retaining at the same time the character of the original work fairly exactly.

The directions for practical work which accompany each chapter, and which formed a valuable feature of the first edition, have been very little altered, but we miss the admirable introductory "Hints to Students on Practical Work". There is little doubt that in its new form this book will fully maintain the reputation it has already gained.

THE DISSECTION OF THE DOGFISH. By R. H. WHITEHOUSE, D.Sc., and A. J. GROVE, M.A., D.Sc. (London: University Tutorial Press, 1936.) Pp. 179. Price 3s.

This is the third and last volume of a series by these authors dealing with the dissection of vertebrates, since all three types universally dissected by medical students have now been treated on similar lines. The books aimed at providing detailed instructions for students who are condemned to work mainly unaided, and there is no doubt that, in seeking to meet this need, the authors have been largely successful. Moreover, as each volume is, in some degree, a monograph on the animal concerned, we are furnished with a more complete account of its anatomy than is to be found in the average text-book.

The text is clear and easy to follow, and illustrations have been lavishly provided, although these are not uniformly successful. At the low price of 3s. this book should reach the hands of many first-year students.

We have also received the following:

HYDROTHERAPY AND CLIMATOTHERAPY. By MATTHEW B. RAY, D.S.O., M.D., F.R.C.P. (Edward Arnold & Co., 1936.) Price 12s. 6d.

LECTURES TO NURSES. By MARGARET S. RIDDELL. Sixth edition. (Faber & Faber, 1936.) Price 6s.

THE MUSCULAR SYSTEM. By HAROLD BURROWS, M.B., B.S., F.R.C.S. Third edition. (Faber & Faber, 1936.) Price 2s.

COMPARATIVE INORGANIC CHEMISTRY. By THEODORE H. SAVORY, M.A. (Edward Arnold & Co., 1936.) Price 4s.

TIMES FOR ATTENDANCES IN THE OUT-PATIENTS' AND SPECIAL DEPARTMENTS.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Medical Out-Patients. New cases: 9 a.m. Old cases: male, 10 a.m.; female, 10.30 a.m.	Dr. G. Dourne at 9 a.m.	Prof. Witts and Dr. Spence at 9 a.m.	Dr. J. Maxwell at 9 a.m.	Dr. F. G. Chandler at 9 a.m.	Prof. Witts and Dr. Spence at 9 a.m.	Dr. E. R. Cullman at 9 a.m.
Surgical Out-Patients. New cases: 9 a.m. Old cases: 10 a.m.	Prof J Paterson Ross and Mr. J. P. Hosford at 9 a.m.	Mr R. M. Vick at 9 a.m.	Mr J. R. Hume at 9 a.m.	Prof J Paterson Ross at 9 a.m.	Mr. Rupert Corbett at 9 a.m.	Mr. Keynes at 9 a.m.
Diseases of Women	Dr. Shaw (new cases at 9 a.m. only).	—	Dr. Donaldson and Dr. Beattie at 1 p.m.†	—	—	Dr. Shaw at 9 a.m.
Ante-Natal Clinic	Dr. Shaw at 9 a.m.	—	—	Dr. Donaldson, Dr. Shaw and Dr. Beattie at 12.30 p.m.	—	—
Orthopaedic Department	Mr. S. L. Higgs at 1 p.m.	—	—	Mr. R. C. Elmslie at 1 p.m.	—	—
Throat and Nose Department	Mr. Bedford Russell at 1 p.m.	Mr. Capps at 9 a.m.	—	Mr. Bedford Russell at 9 a.m.	Mr. Capps at 1 p.m.	—
Aural Department	Mr. S. R. Scott at 1 p.m.	Mr. N. A. Jory at 9 a.m. (acting)	—	Mr. S. R. Scott at 9 a.m.	Mr. N. A. Jory at 1 p.m. (acting)	—
Ophthalmic Department	Mr. Rupert Scott at 1 p.m.	Mr. Foster Moore at 1 p.m.	—	Mr. Rupert Scott at 1 p.m.	Mr. Foster Moore at 1 p.m.	—
Skin Department	—	Dr. Roxburgh at 9 a.m.	Dr. Roxburgh at 9 a.m.	—	Dr. Roxburgh at 9 a.m.	—
Psychological Department	—	—	—	—	Dr. Porter Phillips at 1.30 p.m.	—
*Electrical Department	Dr. Cumberbatch. Males at 2 p.m.	Dr. Cumberbatch. Females at 2 p.m.	—	Dr. Cumberbatch. Males at 2 p.m.	Dr. Cumberbatch. Females at 2 p.m.	—
*X-Ray Department	Dr. Stone at 9.30 a.m. Dr. Finzi at 1.30 p.m.	Dr. Stone at 9.30 a.m. Dr. Loughborough at 1.30 p.m.	Dr. Loughborough at 9.30 a.m.	Dr. Loughborough at 9.30 a.m. and 1.30 p.m.	Dr. Finzi at 9.30 a.m. and 1.30 p.m.	9.30 a.m.
*Exercises and Massage Department	Women, 9 a.m. Men and women, 1.30 p.m.	Men, 9 a.m. Men and women, 1.30 p.m.	Women, 9 a.m. till 1 p.m.	Men, 9 a.m. Men and women, 1.30 p.m.	Women, 9 a.m. Men and women, 1.30 p.m.	Men, 9 a.m. till 1 p.m.
Diseases of Children	Dr. Harris at 9 a.m.	Dr. Harris at 9 a.m.	Dr. Harris at 9 a.m.	Dr. Harris at 9 a.m.	Dr. Harris at 9 a.m.	Dr. Harris at 9 a.m.
Dental Department	Mr. Cowan at 9 a.m.	Mr. Coleman and Mr. Hardy at 9 a.m.	Mr. Hankey and Mr. Cambrook at 9 a.m.	Mr. Fairbank and Mr. Cowan at 9 a.m.	Mr. Hardy at 9 a.m.	Mr. Hankey and Mr. Cambrook at 9 a.m.
Tuberculosis Dispensary	—	12.30 p.m. to 2.30 p.m. 2.30 p.m. Art. Pneumothorax Clinic. 5 to 7 p.m.†	—	NEW CASES ONLY from 12.30 p.m.		
Venereal Department	Man, 5 to 7 p.m.	Women and children, 4 to 6 p.m.	—	Men, 12 to 2 p.m.	Women and children, 12 to 2 p.m.	—
Plastic Surgery	Sir Harold Gillies at 2 p.m.	—	—	—	—	—
*Neurological Clinic	—	—	Dr. Denny-Brown at 1.30 p.m.	Dr. Hinds Howell at 1.30 p.m.	—	—

* Patients are not seen in these Departments unless recommended by the Medical Staff.
† These hours are intended for patients who cannot attend at mid-day.
‡ Patients with Doctor's letters only, or who have been previously examined by the Gynaecological House Surgeon.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

ADRIAN, E. D., M.A., M.D., F.R.C.P. "The Electrical Activity of the Cortex." *Proceedings of the Royal Society of Medicine*, January, 1936.

ANDERSON, R. G., M.D., M.R.C.P. "Acroparasthesia." *Proceedings of the Royal Society of Medicine*, March, 1936.

ARCHER, H. E., M.R.C.S., L.R.C.P., F.I.C., and GRAHAM, GEORGE, M.D., F.R.C.P. "Excretion of Ascorbic Acid." *Lancet*, March 28th, 1936.

BELL, ARTHUR C., M.B., B.S., F.R.C.S., M.C.O.G. "Minor Gynaecological Surgery." *Practitioner*, April, 1936.

BURROWS, HAROLD, C.B.E., M.B., F.R.C.S. "Pneumonitis of Pregnancy in the Light of Conditions Found in Mice after the Prolonged Administration of Oestrogenic Compounds." *Proceedings of the Royal Society of Medicine*, February, 1936.

CAMBROOK, J. DRAFER, M.R.C.S., L.R.C.P., L.D.S. "Snake Venom and its Use in Dental Hemorrhage." *Proceedings of the Royal Society of Medicine*, January, 1936.

COCKayne, E. A., D.M., F.R.C.P. "Arachnodactyly with Congenital Heart Disease (? Interventricular Septum)." *Proceedings of the Royal Society of Medicine*, December, 1935.

DONALDSON, MALCOLM, F.R.C.S., M.B., B.Ch., F.C.O.G., CADE, STANFORD, F.R.C.S., HANMER, WILLIAM DOUGLAS, M.Chir., F.R.C.S., WARD, R. OSMER, M.Ch., F.R.C.S., and EDWARDS, ARTHUR TUDOR, M.D., M.Chir., F.R.C.S. "The Early Diagnosis of Malignant Disease for the Use of General Practitioners." London: Oxford University Press, 1936.

FIDDIAN, J. V., M.D. "Resuscitation by Cardiac Massage." *British Medical Journal*, March 28th, 1936.

FISHER, A. G., TYRRELL, H. C., M.B., B.Ch., F.R.C.S. "The Disk-shaped External Semilunar Cartilage." *British Medical Journal*, April 4th, 1936.

FLETCHER, ERNEST, M.B., M.R.C.P., (and SELLORS, T. HOLMES, F.R.C.S.). "Deteleatic Bronchiectasis: Lobectomy; Recovery." *Proceedings of the Royal Society of Medicine*, December, 1935.

GAUVAIN, SIR HENRY, M.D., M.Chir., F.R.C.S. "Prognosis in Spinal Caries." *Lancet*, March 7th, 1936.

GRAHAM, GEORGE, M.D., F.R.C.P. See Archer and Graham.

HALDIN-DAVIS, H., M.D., F.R.C.P., F.R.C.S. "Multiple Warts in a Crosette Worker." *Proceedings of the Royal Society of Medicine*, December, 1935.

HANKEY, GEORGE I., L.R.C.P., M.R.C.S., L.D.S. "Ewing's Tumour (Endothelial Myeloma) of the Mandible: or Diffuse Myelosarcoma." *Proceedings of the Royal Society of Medicine*, April, 1935.

"von Recklinghausen's Disease with Local Tumour of the Palate." *Proceedings of the Royal Society of Medicine*, June, 1935.

"Ostitis Fibrosa of Maxilla and Cranium." *Proceedings of the Royal Society of Medicine*, October, 1935.

HARMER, WILLIAM DOUGLAS, M.Chir., F.R.C.S. See DONALDSON, CADE, HARMER, WARD and EDWARDS.

HATTERSELY, S. M., M.C., R.A.M.C. "The Treatment of Waste Water with Ferrous Sulphate and Lime." *Journal Royal Army Medical Corps*, March, 1936.

HEALD, C. B., C.B.E. "Electro-therapy 1910-1935, including Experiments in the Induction of Artificial Fever." *Proceedings of the Royal Society of Medicine*, December, 1935.

"Sprains and Strains." *Practitioner*, April, 1936.

HERNAMAN-JOHNSON, F., M.D., D.M.R.E. "Acute" Carcinoma of Breast, 'Peau d'Orange' Type." *Proceedings of the Royal Society of Medicine*, January, 1936.

HORDER, LORD, K.C.V.O., M.D., F.R.C.P. "Thyrototoxicosis: Medical Aspects." *British Medical Journal*, November 30th, 1935.

HOSFORD, JOHN P., M.S., F.R.C.S. "Prognosis in Fractures of the Os Calcis." *Lancet*, March 28th, 1936.

KLABER, R., M.D., M.R.C.P. "Lymphangiomata Circumscriptum of the Tongue." *Proceedings of the Royal Society of Medicine*, March, 1936.

"? Peniphagus Vegetans ? Epithelioma." *Proceedings of the Royal Society of Medicine*, January, 1936.

"? Pityriasis Rubra Pilaris." *Proceedings of the Royal Society of Medicine*, March, 1936.

KLABER, R., M.D., M.R.C.P. "? Tar Molluscum." *Proceedings of the Royal Society of Medicine*, March, 1936.

(A. M. H. GRAY, C.B.E., M.D., F.R.C.P., and R. K.). "Involuntary Dyeing of the Hair: a Further Case." *British Journal of Dermatology and Syphilis*, April, 1936.

LAVERICK, J. V., M.R.C.S., L.R.C.P. "Rat-bite Fever from a Cat." *British Medical Journal*, March 28th, 1936.

LEVITT, W. M., M.D. See Witts and Levitt.

LINDEMAN, S. J. L., M.C., R.A.M.C. "The Problem of Dealing with Casualties in a Force of Armoured Fighting Vehicles." *Journal Royal Army Medical Corps*, March, 1936.

LLOYD JONES, D. M., M.D., M.R.C.P. "An Experimental Study of Malignant Endocarditis. (Appendix to Bacterial Endocarditis, by C. BRUCE PERRY, M.D., M.R.C.P.) Bristol: John Wright & Sons, 1936.

MCDONAGH, J. E. R., F.R.C.S. "The Common Cold and Influenza and their Relationship to other Infections in Man and Animals. The Nature of Disease Annual Reports for the Years 1934 and 1935." London: William Heinemann, 1936.

MAINGOT, RODNEY, F.R.C.S. Editor of *Post-graduate Surgery*, Vol. I. London: Medical Publications, 1936.

MARSH, F. DOUGLAS, M.B., B.Ch., F.R.C.S. "Abscess of the Nasal Septum Complicating Endonasal Operation for Antral Suppuration (Clinical Record)." *Journal of Laryngology and Otology*, December, 1935.

"Acute Otitis Media." *Medical Press and Circular*, January 15th, 1936.

NAISH, A. E., M.D., F.R.C.P. (and GUMPERT, T. E., M.B., M.R.C.P.). "Von Gierke's Disease Associated with Amylorrhoea." *British Medical Journal*, February 22nd, 1936.

NICOL, W. D., M.B., B.S., M.R.C.P., D.P.M. (and HUTTON, E. L., M.B., B.S., D.P.M.). "Some Clinical Aspects of General Paralysis." *Journal of Mental Science*, October, 1935.

PATERSON, J. P., M.R.C.S. "An Unusual Termination of Citrithic Splenomegaly." *Lancet*, February 22nd, 1936.

PAYNE, REGINALD T., M.B., B.S., F.R.C.S. "Idiopathic Dilatation of Stenosis of Duod." *Lancet*, March 21st, 1936.

"Diseased Kidneys: Four Specimens." *Proceedings of the Royal Society of Medicine*, February, 1936.

ROBERTS, J. E. H., O.B.E., F.R.C.S. "Pericardiectomy in a Case of Pick's Disease." *Proceedings of the Royal Society of Medicine*, January, 1936.

"Lobectomy for Bronchiectasis." *Proceedings of the Royal Society of Medicine*, January, 1936.

"Total Pneumonectomy for Bronchiectasis." *Proceedings of the Royal Society of Medicine*, January, 1936.

ROCHE, ALEX. E., M.A., M.D., M.Chir., F.R.C.S. "Haemato-nephrosis and Carcinoma of the Renal Pelvis." *Proceedings of the Royal Society of Medicine*, February, 1936.

SCOTT, SYDNEY, M.S., F.R.C.S. "Observations on Vertigo." *Practitioner*, March, 1936.

SEDDON, HERBERT J., F.R.C.S. "Von Recklinghausen's Disease (Neuro-fibromatosis) with Scoliosis." *Proceedings of the Royal Society of Medicine*, January, 1936.

SHAW, WILFRED, M.D., F.R.C.S., F.C.O.G. *Text-book of Gynaecology*. London: J. & A. Churchill, 1936.

SIMMONDS, F. A. H., M.A., M.B., D.P.H. "Report of a Post-mortem Examination of an Apicolytic." *Tubercle*, April, 1936.

SLOT, GERALD M., M.D., M.R.C.P., D.P.H. "Five Cases Illustrating Chrysotherapy." *Proceedings of the Royal Society of Medicine*, January, 1936.

THEOBALD, G. W., M.D., M.R.C.P., F.R.C.S.E., F.C.O.G. "Neritis in Pregnancy Successfully Treated with Vitamin B." *Lancet*, April 11th, 1936.

THORNE, R. THORNE, M.D. (LIONEL HIGGINS, F.R.C.S., and R. T. T.). "Epistaxis Treated with Viper Venom." *British Medical Journal*, March 28th, 1935.

TURNER, PERCY E., M.D., B.S., D.P.H. *A Tropical Medical Manual Specially Prepared for the Use of Salvation Army Officers. Originally Based on the Memorandum of the Late Sir William Moore, K.C.I.E.* New and Revised edition, London, 1935.

VICK, REGINALD, O.B.E., M.A., M.Chir., F.R.C.S. "Minor Surgery of the Breast." *Practitioner*, April, 1936.

WALKER, KENNETH, O.B.E., M.A., M.B., F.R.C.S. Editor of *Surgical Diseases and Injuries of the Genito-Urinary Organs*. By Sir John Thomson-Walker, D.L., M.D., C.M. (Ed.), F.R.C.S. Second edition. London: Cassell & Co., 1936.

EXAMINATIONS, ETC. University of London.

Second Examination for Medical Degrees, March, 1936.

Part II.—Anderson, A. C., Ballantyne, J. C., Beck, G. A., Blanchard, T. P., Brownless, P. A. K., Bryne, W. E., Cates, R. N., Clarke, T. H. W., Cunningham, A. G., Davies, I. R., Dearlove, R. A., de Saram, G. S. W., Donkin, W., Gillingham, F. J., Gimson, L. V., Glatston, H., Gould, J. H., Gunz, F. W., Jackson, C. A., Jamieson, J. G., Kelsey, D. N., Linton, J. S. A., Lumb, G. D., Mason, M. L., Murley, R. S., Nicolas, J. C. H., Osceir, A. S., Playfair, A. S. S., Plevdell, M. J., Rogers, N. C., Savidge, R. S., Swinestead, P. D., Tatlow, W. F. T., Taylor, W. N., Temple, J. L., Thompson, F. A., Williams, E. H.

Conjoint Examination Board.

Pre-Medical Examination, March, 1936.

Chemistry.—Cooper, C. F., Druitt, A. W. N., Elias, S. N., Gollidge, A. H., Harvey, R. J., Lambert, C. S. L., Thrower, A. L.
Physics.—Cooper, C. F., Druitt, A. W. N., Elias, S. N., Harvey, R. J., Lambert, C. S. L., Thrower, A. L.
Biology.—Elias, S. N., Harvey, R. J., Lambert, C. S. L., Lemerle, M. E., Thrower, A. L.

First Examination, March, 1936.

Anatomy.—Cody, W. T. K., Dawnay, P. F. H., Grant, R. N., Grindlay, R. W. G., Palmer, P. J. E. B., Richards, B. W., Stevenson, W. A. H., Wedd, J. K. K., Whittaker, W. O., Williams, C. G.
Physiology.—Cody, W. T. K., Grindlay, R. W. G., Hall, W. S., Palmer, P. J. E. B., Pickering, G. H., Richards, B. W., Rikovsky, T. P., Stevenson, W. A. H., Whittaker, W. O., Williams, C. G.
Pharmacology.—Cane, C. S., Clunes-Ross, W. G. F., Grace, M. R., Henderson, J. L., Kershaw, R., Levinson, E. H., Scott, K. B., Shields, N. P., Stoker, G. E., Wynny-Jones, D. A., Welply, R., Whittaker, W. O., Williams, C. G.

Final Examination, April, 1936.

The following students have completed the examinations for the Diplomas of **M.R.C.S.**, **L.R.C.P.**, and have had the Diplomas conferred on them:

Barrett, R. H., Bostock, T. F., Bradley-Watson, I. D., Braithwaite, R. F., Clarke, S. H. C., Dastur, H. K., Dransfield, C. M., Gibson, R. E., Harper, K. H., Heasman, L., Henig, L., Jonescu, P. P., Jopling, W. H., Lesser, S. A. H., Mansi, J. A., Masina, A. H., Parks, J. W., Roberts, J. L. D., Rotter, K. G., Royston, G. R., Samuel, D. M., Tuckwell, E. G., Waldin, G. G., Weiner, H., Williams, A. M.

CHANGES OF ADDRESS.

CRISP, G. H., Hoe Court, North Lancing, Sussex.
DALE, W. C., Barnghish, Rowley Green Road, Arkley, District, Herts.
HOLROYD, Lt.-Col. G., I.M.S. (ret.), Howewath, Moorlands Road, Budleigh Salterton, Devon.
JENKINSON, Surg.-Lt.-Cmndr. S. R. N., Junior Army and Navy Club, Horse Guards Avenue, Whitehall, S.W. 1.
PALEY, J. G., 105, Cranbrook Avenue, Cottingham Road, Hull.
STRUGNELL, Surg.-Cmndr. L. F. R.N.C. *Gravelton*, 359, Maidstone Road, Rainham, Kent.
TAIT, C. B. V., 7, Park Street, Windsor. (Tel. Windsor 227.) [106, Harley Street, W. 1. (Tel. Welbeck 3525)—unchanged.]
THWAITES, P., Durley Dene, Hornchurch Hill, Whyteleafe, Surrey. (Tel. Uplands 3814.)
WARD, ROY, 51, Harley Street, W. 1. (Tel. Langham 3273.)

APPOINTMENT.

BELL, ARTHUR C., F.R.C.S., M.C.O.G., appointed Assistant Obstetric Surgeon to Westminster Hospital.

BIRTHS.

BARBER.—On April 20th, 1936, to Margaret Lesley Barber (*née* Sykes), wife of Dr. S. W. Barber, of Norwood—a son (stillborn).
BARNES.—On March 31st, 1936, at 8, Holywell, Oxford, to Florence and David Barnes—a son.

BONNER-MORGAN.—On April 17th, 1936, at 9, Lancaster Road, Hampstead, to Susan, wife of Dr. W. R. Bonner-Morgan—a son.
CAPPS.—On April 6th, 1936, to Gertrud (*née* Torell) and F. C. W. Capps, F.R.C.S., 16, Park Square East, Regent's Park, N.W. 1—a daughter.

DEBENHAM.—On April 25th, 1936, at a nursing home, to Mollie (*née* Higgins), wife of Gilbert R. Debenham, of 8, Addison Road, W. 14—a daughter.

FOWLER.—On April 7th, 1936, at 20, Devonshire Place, to Agatha Clare (*née* Turner), wife of Dr. Eric Fowler, of Crowborough—a daughter.

GARROD.—On April 14th, 1936, at Harpenden, to Marjorie, wife of Dr. Lawrence P. Garrod—a son.

GIBSON.—On April 18th, 1936, at 20, Devonshire Place, W. 1, to Betty and Ronald Gibson—a daughter.

GREEN.—On April 16th, 1936, to Sheila (*née* Hodder), wife of Dr. Leslie E. Green, Eastleigh, Hants—a son.

HUMPHRIS.—On April 25th, 1936, at 13, King Street, King's Lynn, to Aline (*née* Gray), wife of Dr. J. Howard Humphris—a daughter.

RASSIM.—On October 2nd, 1935, at Nicosia, Cyprus, to Dr. and Mrs. H. S. Rassim—a son (Adam).

SINCLAIR.—On April 6th, 1936, at Houndean Lodge, Lewes, to Margaret (*née* Paleston, of Watford), wife of C. Gordon Sinclair, F.R.C.S.—a son.

SPENCER.—On April 20th, 1936, at 107, Park Road, Chorley, Lancs, to Phyllis, wife of Dr. John Spencer—a daughter.

TELFER.—On February 22nd, 1936, to Marjorie, wife of P. W. McK. Telfer—a daughter (Elizabeth Ann).

WOODS WALKER.—On April 13th, 1936, at 20, Pembroke Crescent, to Ella (*née* Troill), wife of Geoffrey Woods Walker, F.R.C.S., of 6, Dawson Place, W. 2—a son.

MARRIAGES.

HISCOCKS—STALLBRASS.—On April 22nd, 1936, at St. Mary's, Gt. Dunmow, by the Rev. John Maryon-Wilson, rector of Gt. Canfield, assisted by the Rev. Noel Mellish, V.C., Vicar of Gt. Dunmow, and the Rev. C. E. Stocks, Rector of Barnston, Henry Frederick Hiscocks, M.B., elder son of the late F. W. Hiscocks and Mrs. Hiscocks, to Sybil Edith, second daughter of Mr. and Mrs. Frank Stallbrass, of Albans, Barnston.

LIST—CARR.—On April 4th, 1936, at Christ Church, Stone, by the Rev. F. N. Didsbury, Dr. Howard Meredith List, second son of Dr. G. H. and Mrs. List, of The Villas, Stoke-on-Trent, to Elizabeth Maud, elder daughter of Mr. and Mrs. R. H. Carr, of Stone.

SNELL—SUTHERLAND-HARRIS.—On April 25th, 1936, at Burwash Parish Church, by the Master of Charterhouse, Vincent Clark Esq., F.R.C.S., of Etchingham, to Joan Sutherland-Harris, of Heathfield, Sussex.

TAIT—POPE.—On April 22nd, 1936, at Holy Trinity Church, Exmouth, Charles Brooke Vaughan Tait, M.B., D.O.M.S., son of the late Charles James Tait, to Roselle Mary Gladstone Pope, only daughter of the late P. G. Pope and Mrs. Pope, of Exeter.

DEATHS.

HERRINGHAM.—On April 23rd, 1936, passed away at his sister's home, Heathcote House, Lymington, Hants, Major-General Sir Wilmot Parker Herringham, K.C.M.G., C.B., F.R.C.P., elder son of the late Prebendary and Mrs. Herringham, aged 80.

MITCHELL.—On April 12th, 1936, at Tower House, Portsmouth, Arthur Martin Mitchell, M.D.

WILLIAMS.—On April 20th, 1936, at St. Bartholomew's Hospital, William Roberts, only son of Owen and Katherine Williams, of Penystunillyn, Criccieth, Caernarvon, aged 25.

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, E.C. 1.

The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, Mr. G. J. WILLIAMS, M.B.E., B.A., at the Hospital.

All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.

St. Bartholomew's Hospital



JOURNAL.

"Æquam memento rebus in arduis
Servare mentem."

—Horace. Book iii, Ode iii.

VOL. XLIII.—No. 9.]

JUNE 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Tues., June 2.	—Dr. Gow and Mr. Girling Ball on duty.
Wed., " 3.	—Surgery: Clinical Lecture by Mr. Wilson. Cricket Match v. Horlick's. Away. Tennis Match v. St. Thomas's Hospital. Home.
Fri., " 5.	—Dr. Graham and Mr. Roberts on duty. Medicine: Clinical Lecture by Dr. Evans.
Sat., " 6.	—Cricket Match v. Wanderers' C.C. Home. Tennis Match v. R.N. College. Away.
Mon., " 8.	—Special Subjects: Lecture by Mr. Higgs. Cricket Match v. Craydon. Away.
Tues., " 9.	—Dr. Geoffrey Evans and Mr. Vick on duty.
Wed., " 10.	—Surgery: Clinical Lecture by Mr. Vick. Tennis: Second round Inter-Hospitals Cup.
Fri., " 12.	—Prof. Witts and Prof. Paterson Ross on duty. Medicine: Clinical Lecture by Dr. Hinds Howell.
Sat., " 13.	—Cricket Match v. Hampstead. Home. Tennis Match v. Lancing Old Boys. Away.
Mon., " 15.	—Special Subjects: Lecture by Mr. Bedford Russell.
Tues., " 16.	—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Wed., " 17.	—Surgery: Clinical Lecture by Mr. Roberts.
Fri., " 19.	—Dr. Gow and Mr. Girling Ball on duty.
Sat., " 20.	—Cricket Match v. M.C.C. Home. Tennis Match v. Chiswick Park "A". Home.
Sun., " 21.	—Cricket Match v. Middlesex Hospital. Away.
Mon., " 22.	—Special Subjects: Lecture by Mr. Elmslie. Last day for receiving matter for the July issue of the Journal.
Tues., " 23.	—Dr. Graham and Mr. Roberts on duty.
Wed., " 24.	—Surgery: Clinical Lecture by Mr. Ball. Tennis Match v. Chiswick Park "A". Away.
Fri., " 26.	—Dr. Geoffrey Evans and Mr. Vick on duty. Medicine: Clinical Lecture by Dr. Hinds Howell.
Sat., " 27.	—Cricket Match v. St. George's Hospital. Home. Tennis Match v. Lancing Old Boys. Home.
Mon., " 29.	—Special Subjects: Lecture by Mr. Sydney Scott.
Tues., " 30.	—Prof. Witts and Prof. Paterson Ross on duty.

EDITORIAL.



NCE more, with the passing of time, the Hospital has lost the active services of one of its famous sons and of a great surgeon, for Sir Charles Gordon-Watson has resigned from the visiting staff.

A man of many parts, he has always been an enthusiastic athlete, and a great supporter of athletics of all kinds in the Students' Union, of which he has been President. Since being a keen player in his youth he has for years been President of the Hospital Association Football Club, and of recent years he has also been a Vice-President of the Rugby Club and encouraged both games. He is President of the Lawn Tennis Club and is often seen playing for the Past v. Present.

Many years ago he was also an ardent motor cyclist, and used to take part in the runs from London to Edinburgh in the days when that journey was not only an adventure, but also a great engineering feat. And now he is a keen golfer, an excellent performer with rod and gun, and not unknown on the race-course.

He has served in two wars—as a civil surgeon in the South African War and in the Great War, when he first of all commanded the Duchess of Westminster's Hospital for Officers at Le Touquet, and later was Consulting Surgeon to the Second Army in France during the heavy fighting in 1917 and later on the Italian Front. For these services he received the well-deserved honour of knighthood and the C.M.G.

He has been for many years a member of the Council of the Royal College of Surgeons, and is now one of its Vice-Presidents—an office entailing extra work, which has been partly responsible for his retirement from Hospital practice three years before his time. For years of course he was Surgeon to the Metropolitan Hospital, and until quite lately to St. Mark's Hospital, rectal surgery being his speciality. And yet one feels

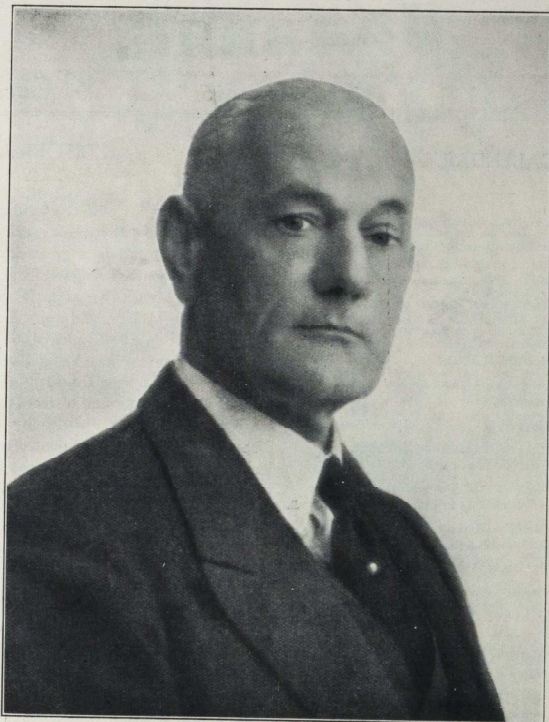
that, in spite of all these manifold activities, his heart has always been in his work at Bart.'s more than anywhere else. Even from the earliest days as House Surgeon and later as Surgical Registrar, he has worked with untiring enthusiasm and has communicated that enthusiasm to others.

As a surgeon his characteristic has been boldness—

of happy, healthy leisure, with just as much work as he wishes to do.

* * *

A desire has been expressed that Lord Horder's retirement from the active staff of the Hospital should be made the occasion of some special mark of recognition of his services to the Hospital and Medical College, of



Dudley Glenfield.]

major surgery with excellent results, combined with a particular ingenuity in the treatment of injuries. As a teacher it has been originality—speaking rather from experience than from the book, and as a man, geniality and good fellowship—a liking for the good things of life—and a readiness to take part in any cheerful undertaking.

He has not given up his practice, and we hope we may often see him amongst us in the future as a Consulting Surgeon. We certainly wish him many years

his great distinction in the profession, and also of the fact that he is the first member of the Staff to receive the honour of a Peerage.

It is proposed that his portrait should be painted by Mr. William Nicholson and presented to him that it may be included in the collection of portraits of men of note in the Great Hall of the Hospital.

A small committee has been formed to achieve the purpose, consisting of Lord Stanmore, Lord Wakefield

of Hythe (Treasurer), Mr. Alec Martin, Mr. Girling Ball and Dr. Geoffrey Evans (Honorary Secretary), and cheques should be made payable to the Treasurer, "The Horder Portrait Fund", and sent to him at the Dean's Office, St. Bartholomew's Hospital, E.C. 1.

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We have received a letter from the Secretaries of the Students' Union, making an appeal for funds to build Squash Courts at the Charterhouse site—or, more accurately, to convert two of the old Fives Courts into standard squash courts. The cost will be approximately £950, and the Council of the Students' Union are willing to provide £400. It is earnestly hoped, then, that a generous response will be forthcoming from both Staff and students to provide the remainder, and put the Squash Club on a footing comparable to that of its fellows in the other medical colleges in London. We certainly have the greatest pleasure in commending such a laudable cause to the notice of our readers. Donations should be sent to R. Hanbury Webber or T. M. C. Roberts, Secretaries of the Students' Union.

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The Annual Dinner of the Seventh Decennial Club will be held at the Trocadero Restaurant, Piccadilly Circus, on Wednesday, July 1st, at 6.45 for 7.15 p.m.; price 10s. 6d. All surviving members of the Sixth Decennial Club who have not received notices are cordially invited to consider themselves members of the Seventh, and communicate their intention of being present to the Hon. Secretary, Dr. Roland D. Bristow, 37, Argyll Road, W. 8.

* * *

The Annual Dinner of the Eighth Decennial Club will be held on Wednesday, July 1st, at the Langham Hotel at 7.30. It is very much hoped that as many members of the Club as possible will turn up on that occasion.

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The Secretaries of the Eleventh Decennial Club report that the Eighth Annual Dinner held at the Café Royal on Friday, May 1st, was attended by 102 members—a record for the Club. It would be interesting to know whether this attendance has been exceeded in past years by any of the Decennial Clubs.

Wilfrid F. Gaisford was in the Chair and his health was proposed by M. L. Maley. Several members attended for the first time, amongst them P. B. P. Mellows, M. J. Harker, A. M. McMaster and J. B. Crabtree. N. A. King, on holiday from South Africa, was a welcome visitor.

* * *

Dr. Arthur Wormall, D.Sc. (Leeds), has been appointed from October 1st, 1936, to the University Chair of Biochemistry tenable at St. Bartholomew's Medical College.

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We congratulate Mr. R. S. Murley on being awarded a Dunn Exhibition in Anatomy and Physiology for 1936 by the University of London.

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The Students' Union Dance held at Charterhouse Square on May 15th was a great success, there being 350 people present. A profit of £26 15s. 11d. was made, which has been given to the College Appeal Fund: and it is hoped that another Dance will be held in the autumn, subject to the approval of the College authorities. It is also anticipated that the floor will show a substantial improvement.

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The Annual Dinner of the Ninth Decennial Club will be held at the Langham Hotel on Wednesday, July 8th, at 7.30. This Club includes students who entered the Hospital between 1895 and 1905. The secretaries are Mr. R. C. Elmslie and Dr. C. M. Hinds Howell.

OBITUARIES.

SIR WILMOT HERRINGHAM.

WILMOT PARKER HERRINGHAM, who died at Lymington on April 23rd, in his eighty-second year, was an unforgettable personality. Sheer merit and ability forced him to the front in many spheres of activity, and every job undertaken by him was supremely well done, but never at any time was he "well known" in the popular sense. His reserve, his downrightness, his contempt for sentiment or display and his refusal to curry favours prevented him being at any time a public character, but to those who knew him he was a great man.

Few people have cared less for popularity or publicity. With him, people's likes and dislikes counted little so long as he was trying to fulfil his own high standard of conduct, but the confident demeanour and the outward sternness of behaviour marked a kindness and modesty that were known to a few who came in contact with him. It is not given to many to have the opportunity of refusing the Regius Professorship of Medicine at Oxford, but Herringham did so because he felt he was past his best and not capable of doing full credit to himself or the position. That action was typical of the man.

Herringham's first choice was the Law, and after taking honours in Classics at Oxford he entered as a student at Lincoln's Inn. Then, altering his mind, he took up Medicine at St. Bartholomew's and in Vienna, embarking upon a successful professional career which brought him to a practice in Wimpole Street, and the position of Consulting Physician at St. Bartholomew's and the Paddington Green Children's Hospital.

Those who knew him well could understand his initial choice of the Law as a career. Herringham's most obvious characteristics were his finely balanced mind, his impartiality, his shrewdness and his reserve. He would have made an ideal family solicitor or a famous judge. As he gave himself no chance in these directions, such gifts served to make him a first-rate chairman and a capable administrator, and accounted for the striking successes that attended his chairmanships of the Old Vic.'s Governors and the General Nursing Council.

The University of London received his devoted services for many years, and he was Vice-Chancellor from 1912 to 1915—a memorable period for the University—and was also Chairman of the Council of Bedford College for Women, and a member of the University Grants Committee. In the General Election of 1918 he unsuccessfully contested the London University seat as an Independent. His election address contained the following characteristic passage:

"I have been for many years in favour of women's franchise and of opening all careers to women on the same terms as men. Some years ago I moved and carried against strong opposition the resolution that admitted them to the examinations of the Royal College of Physicians."

His versatile career included distinguished war service. As a Major-General he was Consulting Physician at G.H.Q., and later to the Third Army from the first battle of Ypres to the end of the war. He was mentioned in despatches, and created C.B. and K.C.M.G. In 1919 he published *A Physician in France*, in which, as usual, he showed his disinclination for fawning and his courage in uttering unpalatable truths.

After the war there was a changed Herringham: he seemed to have retired more deeply within himself. The death in action of his only surviving son and the beginning of his wife's long and distressing illness both had lasting effects upon him, but there were still two pieces of difficult administrative work waiting for him. Both these were carried through to complete success in circumstances which would have deterred or broken many.

In February, 1921, he became Chairman of the Old Vic. Governors, and acted in this capacity until

April, 1929. Those years were critical and troublesome. Reconstruction of the theatre was demanded by the L.C.C., and Morley College had to be found a new home. This involved a big expenditure, the whole of which had to be collected. Subsequently a fund had to be created for the acquisition and reconstruction of Sadler's Wells. This work of national importance was carried out during Herringham's chairmanship, and it is delightful to listen to the warm tributes of admiration and affection which are made from time to time by his fellow-Governors.

Another task of extreme difficulty was the chairmanship of the General Nursing Council of England and Wales. In 1921 the Council had violent differences and was rent in two and the Chairman resigned. Then half the Council resigned. Herringham was induced by the Minister of Health to accept the chairmanship, although it was obviously an unenviable and difficult job. Only an exceptional Chairman could have succeeded, but Herringham's ability, imperturbability and fearlessness won through.

As a teacher at St. Bartholomew's he won universal respect for his thoroughness and ability. Several generations of medical students had the advantage of listening to his fine lectures on forensic medicine, and numerous passages in these lectures are worth quoting. When introducing the subject of difficulties and dangers of medical practice he said:

"The object of an honest lawyer, and the same may be said of a lecturer on a legal subject, is to prevent his clients from following their natural inclination to make fools of themselves. A little knowledge of the ways of the world will often save us from an infinity of annoyance, and I urge you in the strongest possible way to remember that not one of us is safe, however shrewd he may be, and however honourable his purpose. Against any one of us a charge may at any time be brought which, though wholly false, may do him irreparable injury, and any one of us may in the honest performance of duty lay himself open to the accusation of injuring other people which he may have to answer in a court of law. You may think in the innocence of your hearts that provided you treat your patients properly all will go well, but facts prove otherwise. Let me tell you one or two cases which will remove from your minds that erroneous idea."

Dealing with the problem of the expert witness, Herringham used to say:

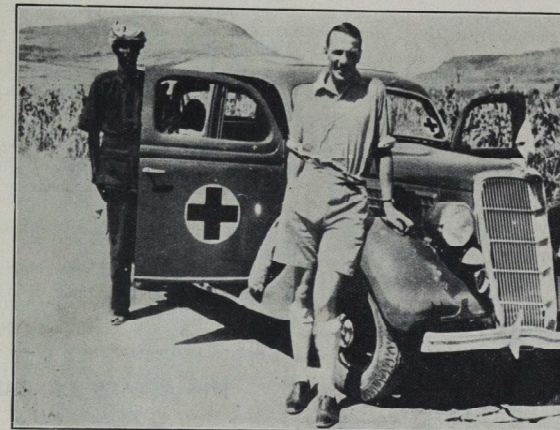
"It would save a great deal of money, and some amount of scandal, if the principle of the medical assessor could be extended. Under no conceivable system will you ever get perfect justice. That does not occur in this world, and if any opinion can be

formed from what we call the laws of nature, I should not expect it in the next either. But though you or I, placed in a position of an assessor, are prone to error, we should be better critics of the medical witnesses than the jury, and should form a fairer opinion on a moderate fee paid by the Crown than the expert witness on a large fee paid by the plaintiff or defendant. It is hard to see clearly through a shower of gold."

R. A. L.

With all this he was, however, a very simple man; he loved playing with children, and they in turn loved playing with him who was not really a proper grown-up.

But there was another side of John's character that was not known to the majority who met him at Dart.'s. He had a great missionary spirit; this came as a surprise to many of his friends. In this age of doubt it is astounding to meet a man of the world with such faith in God and Divine guidance. He was not



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We have received the following from No. 1 Company of the University of London O.T.C. Medical Unit:

The announcement of the death, on April 23rd, of Major-General Sir Wilmot Herringham was received with profound regret throughout the Company and the Contingent.

He commanded the Medical Unit from its foundation in 1909 until the declaration of war in 1914. He earned the respect of the cadets by his clear and outspoken criticisms, and administrative wisdom always combined with a keen sense of humour.

Indeed he will always be remembered, not only by the Stretcher Drill Cup which he presented, but also by the time and energy he devoted to the O.T.C. during its early years.

JOHN MELLY.

(The Address delivered at the Memorial Service in the Church of St. Bartholomew-the-Less.)

JOHN MELLY appeared to many at Bart.'s to be simply a very charming man. His debonair, gay and gallant manner, love of poetry and romance, seemed to belong more to the Elizabethan age than to our own. It was a delight to sit next to him at lunch and be infected by his vivacious humour and laughter.

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aggressive or prudish about it, but in a quiet, unobtrusive way it was simply part of his life.

The 15th Psalm which we have just sung is a more accurate description of John than any man I know. For example, you may remember that we never heard John say anything against others. He was always charitable in his criticisms.

John went to the war at 17, and won the Military Cross for bravery, and at Oxford he won his Blue for boxing. He took up medicine in order to become a missionary, but he was, nevertheless, rather opposed to a narrow missionary life. His friends saw him as the fashionable London doctor, but John's eyes saw beyond all that, and he set out for Abyssinia before the recent war in order to start a medical college in Addis Ababa to train the natives to be medical missionaries. Later, when he organized his ambulance unit, he returned to Abyssinia, but not, as you may suspect, in the spirit of adventure; he knew too much about the country to have any illusions. I know from conversation with

his adjutant that he shared with his companions a life of the greatest discomfort and danger, and led his unit by his example of cool courage and devotion.

It was not easy for a man like John, who loved the luxury of life, to face all this, and he was undoubtedly inspired throughout by a strong religious feeling for the mission that he was performing.

Melly's unit did more in Abyssinia than we read about in the newspapers.

Towards the end of the campaign he wrote to us that he had dreamed a dream and it had come true, and he was content. There is no doubt that Melly's name and his achievement will become a great legend out in that country among the natives, who loved him dearly.

The last message he sent to his mother, shortly before he died, was that he was perfectly happy.

Yesterday I read through Shelley's lament at the death of John Keats. Many of his lines seemed so poignant to the present case:

"Oh, weep for Adonais! though our tears
Thaw not the frost which binds so dear a head!"

"Till the Future dares forget the past, his fate and
fame shall be an echo and a light unto eternity."

"Go to Addis, which is the sepulchre,
Oh, not of him, but of our joy; 'tis nought
That ages, empires, and religion, there
Lie buried in the ravage they have wrought:
For such as he can lend, they borrow not
Glory from those who made the world their prey;
And he is gathered to the kings of thought
Who waged contention with their time's decay,
And of the past are all that cannot pass away."

H. P. N.

APPRECIATIONS.

May one who is not naturally inclined to indulge in funeral panegyrics add a postscript to whatever the JOURNAL may feel disposed to write on the subject of John Melly? Probably of all those at present on the Honorary Staff of St. Bartholomew's Hospital, I knew him best. As a writer in the *Times* aptly wrote, "He was debonair in the true sense of the word, and bore himself with a certain gallant grace that is more often written about than met with in this unromantic age". We can ill spare these figures that add to the gaiety of life, and when I read of his death I recalled that last scene in Meredith's *Beauchamp's Career*. What a poor exchange for the gallant Beauchamp was that shivering unwanted child rescued from drowning! Oh why had Melly stopped his car for the sake of a wounded Ethiopian which the world could well spare? Yet, those who knew him know that the end was inevitable. Beneath the debonair, light-hearted surface was a serious crusader, prepared,

if necessary, to give up his life for the sake of the cause he served. It was his ambition to carry the blessings of medical science to a suffering and backward people. At heart he was always a missionary, and as a missionary he died.

Melly would never have tolerated the making of a personal career merely for his own profit. If he had survived the Ethiopian adventure, it would only have been to have suffered martyrdom in some other backward region of the world. These funeral orations would still have been written, although the date that they bore would have been altered. He was beloved by all who knew him, and most of all by the children. I think of John himself as a child crusader, in action a gallant gentleman, at heart an unspoilt child.

K. W.

May I add my appreciation of the late Dr. Melly to the many that you, no doubt, have received?

Unlike most brave men, he made no parade of being "tough" or claimed to be a "he man".

In fact his tenderness and gentleness often misled the uninitiated.

I should be pleased to subscribe to any memorial which the Hospital may think of raising to a very gallant gentleman.

F. M.

THE ATTACK ON CANCER.

(A Farewell Lecture.)

By SIR CHARLES GORDON-WATSON, K.B.E., C.M.G.,
F.R.C.S.



WHEN your Sub-Dean, Dr. Harris, invited me to lecture to-day I was reluctant to deliver anything in the nature of a swan-song, and, when considering how best to utilize this opportunity, I decided to talk about the cancer problem, a subject to which I have devoted both time and energy in recent years.

While we may congratulate ourselves that the natural term of life continues to increase, so that the time may come, perhaps when some of you here are serving on the Staff, that the retiring age will have been raised to 70 years or more, it remains no matter for congratulation that the proportionate death-rate from cancer continues to advance, even when allowance is made for the increased expectancy of life and better certification.

It seems likely that with a gradual increase in the length of life there must be a corresponding increase in the development of cancer, a disease which in the main affects senile tissues, as wear and tear increases. In all

probability this is especially true of the glandular tissue of the intestinal tract, especially those portions which have most work to do in dealing with solid matter, so that their epithelium is constantly changing, as in the stomach and distal colon.

Whatever the irritant factors may be, the stage is then set for a carcinogenic agent to function, whether this agent comes from within or without.

My clinical experience strongly suggests that, however ripe the soil is for the appropriate irritant, an hereditary factor plays a very important if not essential part, a factor which may be explained by an instability of the genes of the chromosomes—a rather fascinating and not unconvincing theory of the origin of cancer. In other words I believe that by inbreeding, for example, cases of gastric cancer, you could produce a family exceptionally prone to gastric cancer. Happily the majority of such cases are too old to breed. Or if we put it another way, the sterilization of all cancer cases would gradually lessen the incidence of cancer. Maud Slye in America has by inbreeding developed a race of mice for many generations, which are 100% susceptible to cancer by chronic irritation with tar.

I am not suggesting that cancer is inherited, but that a certain instability of reproduction exists in the nuclei of the cells lining certain organs which allows the particular organ to respond more readily to a carcinogenic agent, and that probably when this hereditary factor is absent, the carcinogenic agent is impotent.

CANCER ORGANIZATION.

The cancer problem is so vast that it cannot be attacked in haphazard fashion; research must be organized, stimulated by adequate funds, and coordinated; the public must realize that cancer, like tuberculous disease, must come out into the open, and not be referred to with bated breath or whispered behind closed doors, or shunned as if it had a venereal taint; and the profession must cease to regard a case of cancer with fatalistic resignation, but rather concentrate on early diagnosis and the education of the public to recognize precancerous conditions and the early signs of cancer.

Some thirteen years ago cancer research in this country was not organized, and the funds available for this purpose were quite trivial.

I hope I am not treading on the corns of any institution or individual when I say that cancer research in England at that time was rather stagnant, and seemed to some of us to have dug itself in on the backs of tarred mice.

To remedy this deficiency some few of us got together in 1923, and after an anxious period were successful in founding the British Empire Cancer Campaign.

This body has established branch centres which cover the whole country. Dominion branches and affiliated bodies have been formed and are actively working in Canada, Australia, New Zealand and South Africa.

As an example of the enthusiasm in the Colonies I might mention that Dr. McKillip, of the Queensland Cancer Trust, recently visited all the cancer clinics in this country and on the Continent. He has produced an admirable report for the Prime Minister of Australia, which gives a complete summary of all that is known about cancer, and of all the lines of research and methods of treatment now in use. I am indebted to him for much help for the material of this lecture.

The organization of the campaign is such that no research is subsidized until it has been investigated by one committee, passed by a scientific committee on which distinguished representatives of the several branches of research are serving, and approved also by the Finance Committee.

From the headquarters in London, since the foundation of the campaign we have distributed over £240,000 for research purposes, and the provincial centres in this country have collected and distributed between them about half a million.

You will surely want to know what has been accomplished. You must realize, however, that the campaign is fighting on a very wide front, and that much reconnaissance is needed before an attack can be pressed home on any salient. Yet all will agree that the front has appreciably narrowed in recent years.

Let me tell you how the field has been narrowed in relation to experimental cancer.

Prof. Kennaway and his co-workers at the Cancer Hospital, developing the work of Yamagiwa with tar on mice, have shown that the carcinogenic agent in tar belongs to the dibenzanthracene series, and that all the known chemical carcinogenic agents possess the closed ring benzene radical, and also that the carcinogenic body sterols (cholesterol and bile acids), gastrin and vitamin D all contain the phenanthrene ring.

Further, Dodds at the Middlesex Hospital has shown that when a cell is chemically irritated by a carcinogenic agent, it accumulates the carcinogenic agent in its bioplasm, which explains why chronic irritation with a carcinogenic agent almost invariably produces a cancer in a susceptible animal; and Orr at Leeds has, I believe shown that when a susceptible animal is painted alternately with tar and mustard gas, the mustard gas inhibits the production of cancer by interfering with the glycolysis and respiration of the damaged cells.

Results such as these following on prolonged research have narrowed the field in one direction, because the knowledge that a pure chemical compound will produce

a cancer in animals must increase the facilities for the study of the *nature* of that cancerous process.

RESEARCH AT ST. BARTHOLOMEW'S.

Our own Hospital is well to the forefront of cancer research. We now have a Cancer Research Department with a director, a cancer research committee and a salaried cancer registrar.

All cancer cases are specially registered, and a scheme for analysis of the records has been drawn up. Histological sections of all malignant cases are duplicated and kept in a separate register. In addition we have started a bone sarcoma registry on the lines of the American registry.

The Deep X-ray Research Department has just issued a valuable ten-year report on deep X-ray therapy in malignant disease, dealing with the results of treatment of 1373 cases on research lines by Drs. Levitt and Phillips. In the near future the completion of a million volt X-ray apparatus will give further opportunities for advancing the research with the use of a tube far more powerful than anything ever attempted before in this country. It is hoped that a comparison of the results obtained by this apparatus, which will produce radiant energy in flexible form more powerful than any radium bomb now in use, with the results of lower voltage X-rays and those of radium bombs now in use, will prove of the utmost value.

We all deeply regret the death of that brilliant research worker, Ronald Canti, but in Dr. Bland, our new Senior Demonstrator of Pathology, we have secured an experienced research worker, who is carrying on where Canti left off. As you all know, Canti's cinematograph work with tissue cultures is famous the world over.

Of the many lines of research now going on in the Hospital, I may mention the work of Dr. Gray in the Anatomical Department on the mode of entry and spread of cancer-cells into the lymphatic glandular system. Using thorotrast he appears to have shown that one of the theories of the spread of cancer, *i. e.* by lymphatic permeation, is mistaken, and that there are no lymphatic trunks in the fascial laminae of the body, that cancer spreads to the lymphatic glands by lymphatic emboli of cancer-cells, and in this connection he calls attention to the danger of excessive palpation of malignant tumours. This is very valuable work which has yet to be completed.

I should also like to mention the work of my chief assistant, Mr. Rodgers, working with the gastroscopist, in association with Dr. Magnus, on the pathology of gastritis and its relation to carcinoma of the stomach.

The fact that carcinoma of the stomach accounts for 20% of the annual deaths from cancer, and that a large

proportion of these cases are more or less symptomless until they reach an inoperable stage, emphasizes the value of research on these lines.

It is hoped that an extended experience with the gastroscopist will not only enable a carcinoma to be recognized in the early operable stage, and before it can be shown by radiography, but will also establish that there is a type of precancerous gastritis with distinctive features. These lines of research, though as yet too limited, already show considerable promise.

In this connection it is worth mentioning that both in Germany and in Edinburgh the cinematograph is now being used to assist the early diagnosis of cancer of the stomach. When carcinoma is suspected but no filling defect is seen with X-rays, the peristaltic waves are photographed under X-ray with the cinematograph. In cases of early cancer the waves are interrupted, slowed up and checked at the site of the growth.

In England and Wales in 1933 there were nearly 12,000 deaths from cancer of the stomach. In the Royal Infirmary, Edinburgh, of 120 cases admitted in 1934, only 16 were considered suitable for radical operation.

It must be evident from these facts that we must concentrate on early diagnosis. The gastroscopist and the cinematograph may help considerably.

I believe the most important early symptom is loss of appetite. If this is not easily corrected, especially in those past middle age, a complete gastric investigation is called for.

Time will not permit me to refer to the researches in our Cancer Department which are being carried out on oestrin, neutrons, and in other directions.

PRE-CANCEROUS CONDITIONS AND THE IMPORTANCE OF PROPAGANDA.

Increased attention is being given to pre-cancerous conditions, especially with regard to protective measures to avoid the *occupational cancers*, *e. g.* in the protection of radium and X-ray workers, tar and aniline dye workers, sweeps and mule-spinners, cobalt miners, and I ought perhaps to mention the persistent sun-bathers. Having regard to the fact that the sun-bathing species is of recent development, and bearing in mind the long latent period of cancer, we may in the future add sun-bathing to the occupational list.

The close relationship between chronic cervicitis in women who have borne children and cancer of the cervix is well known, and both demands and is receiving intensive propaganda.

Cancer of the floor of the mouth is usually preceded by oral sepsis, pyorrhoea, etc. With adequate propaganda, every year should see the number of these cases

diminishing. Many believe that oral sepsis is the exciting factor not only in cancer in the mouth, but in gastric and intestinal cancer also. Undoubtedly a clean mouth is seldom found in gastric cases, and I have taught for years that pyorrhoea is a common accompaniment of cancer of the rectum.

I need hardly refer to the relationship between mastitis and cancer of the breast, and the importance of disseminating knowledge of this fact, however frightening to some.

At the Cancer Hospital, Burrows, following Lacasagne, working with the hormone oestrone, which is now known to be produced in the body by degradation of cholesterol, has been able to produce in the male mouse enlargement of the prostate and also mastitis, and on three occasions a malignant tumour in the breast of the male mouse. These researches emphasize the relationship between mastitis and malignant disease, and show that in suitable soil this hormone is a specific carcinogenic agent acting through the blood-stream. A big field is now being opened up in connection with the body sterols and carcinogenic agents arising from within.

The work of Dukes at St. Mark's has made it clear that innocent tumours of the colon are often precursors of malignant ones and so are pre-cancerous. I have on several occasions removed quite small tumours of the rectum, both sessile and polypoid, which are histologically innocent except for a small area of malignant degeneration. Mottram, at the Mount Vernon Hospital, has studied the relationship between the growth-rate of tar warts in mice and their corresponding autografts, and it comes out in this investigation that warts are often composed, not of like cells throughout, but of two or more groups of cells having different growth capacity as well as sometimes different histological structure, and that autografts from one wart may produce both innocent and malignant warts. These observations on varying rates of growth of different portions of simple warts in mice may explain why some adenomas of the bowel develop into carcinomas and others do not, and the explanation may be concerned with the gene mutation theory of cancer.

We all know that leucoplakia of the tongue is a precursor of cancer of the tongue, and that syphilis is often responsible for the former. I have no doubt that both syphilis and cancer of the tongue are seen far less often now than they were in my early days.

CANCER AND PREVENTION.

The knowledge that we have now with regard to the actual irritant which excites a tar-worker or mule-spinners' cancer makes prevention possible in these cases.

Extended knowledge should help in other directions. For example the nature of the oily compounds in exhaust gases of motor cars is being investigated, and any relation which they may have to bronchial carcinoma.

Every year our knowledge of "specific tissue irritants" in cancer does and should increase, and if the knowledge now available was put to its full use (*e. g.* with regard to the multiparous woman with a torn cervix), we should be saving more and more lives each year by preventive measures. There is little hope that we can ever do much to help the eugenic side, except perhaps to call attention to the fact that there are families in which a cancer tendency is dominant, and that inter-marriage amongst these may spell much suffering for generations to come.

ROUTINE MEDICAL EXAMINATION.

In most of the cities of America a custom has grown up for the public to seek an annual overhaul after a certain age. If such a system was adopted in this country and made easy for all, many unsuspected cancers would be discovered. All those over 45 years of age would benefit by a regular periodic examination, not necessarily annually. The early detection of unsuspected complaints other than malignant would often result in the treatment and cure, *e. g.*, of disordered renal or cardiac functions, etc., in the incipient stages.

Insurance companies would be handsomely repaid if they arranged for a free examination of their insured above a certain age, by prolonging the lives of many and adding to the premiums they would receive. Friendly societies and the like could arrange for their members to receive similar benefits for a small charge, and the State might well step in for those unable to pay. The State would benefit considerably.

CANCER PUBLICITY.

There is much difference of opinion with regard to the dissemination of the truth about cancer to the general public. Many hold the view that the distribution of pamphlets detailing the early signs of cancer and pre-cancerous conditions, by creating a fear of cancer in the bulk of the population, who are in the main healthy people, would do more harm than good.

Surely the truth is that cancer-phobia results from ignorance and not from knowledge. Publicity or no publicity, there will always be some highly sensitive individuals who will endure imaginary cancer. Does it matter very much if publicity should add to their number provided that it saves others from *real* cancer? We have seen the results of the dissemination of knowledge about tuberculosis; we never heard anything about tuberculophobia!

As Dr. McKillip has stated: "The whole truth of the matter is that the cancer problem has been and is still surrounded by a smoke-screen of mysticism and fatalism, for which our own profession is largely to blame. The idea is rapidly gaining ground that the cause of cancer is *no mystery at all*, as the disease is, in all probability, the biological penalty to be paid by a tissue for being deviated from its normal physiological duty by one or more influences.

"The vicious circle of fatalism regarding the disease, which is shared alike by rich and poor, by the educated and by the ignorant, is based upon a false assumption that cancer is an incurable disease."

Because of this belief a large proportion of sufferers fail to seek advice early, and because they dread a mutilating operation which they are convinced cannot cure. So the vicious circle grows. The heavy mortality in advanced cancer raises its grim spectre for all concerned to see, and confirms the public in the view that cancer is incurable.

There is only one way to break this vicious circle. Let the public know with no uncertain voice that localized cancer is easily curable by the means which we have at our command, and that thousands of cured cases are living healthy lives, and let them know that *only if cancer is neglected does it spread beyond the reach of cure*.

Dr. J. M. Shaw, of the Edinburgh Cancer Organization, has said: "The evidence of a well-planned traffic control gives a sense of security and not of fear to the users of the highway. The signals when observed conduce to safety. We are asking the public to observe the cancer traffic signals on the road of life."

THE QUACK AND CANCER CURES.

Surely the time has come for legislation which will in some way protect the public against the advertising quack who offers to the public a painless and certain cure for cancer. Thousands of lives, which might often be saved, are sacrificed annually, by the unscrupulous methods of those who exploit their useless wares on their ignorant victims, and bleed them to the last farthing while life lasts.

CANCER AND IMMUNITY.

Dr. Lumsden has been carrying out research for many years under a grant from the Campaign on this subject. He can now produce a serum which, when tested *in vitro*, kills cancer-cells, and he has been able to immunize rats against implantation tumours, and has established that the anti-cancer bodies concerned are euglobulins. With this serum he has been able to cure about 10% of mice with spontaneous and implanted tumours by injecting the serum into the tumours. Dr.

Lumsden is now seeking for the unknown factor which enables the serum to act in some cases and not in others.

At the present time there seems little hope of making any real progress in the cure of advanced cancer with any of the methods of treatment at present available, though it is possible we may advance further with higher voltage X-rays or more massive radium bombs; but if we can find out the process of natural immunity as observed both in animals and human beings, and if we can produce an effective anti-cancer serum, the outlook would be far less gloomy.

It seems probable that a primary tumour can produce antibodies which, up to a point, under a suitable stimulus protect the host.

Recent work with X-rays and sarcoma of bone suggests that by X-ray action on the primary tumour antibodies are produced which cause secondary deposits to retrogress for a time.

It has been observed when tarring mice, and a malignant tumour results from one of these, that further malignant tumours do not usually arise, but if the malignant tumour is removed and the mouse survives, then the inhibition to further malignant tumours is removed and another wart develops malignancy.

The removal of the primary malignant tissue may remove the supply of antibody which has hitherto prevented the formation of additional malignant tumours.

CANCER IN THE PAST AND IN THE FUTURE.

I should like to refer to some of the advantages in the diagnosis and treatment of malignant diseases to-day which were not available when I was a house surgeon thirty-eight years ago.

We had then no facilities for looking at the bronchi and œsophagus or inside the bladder and the sigmoid. The use of X-rays for diagnosis was just beginning, and only of use for the bones of the limbs. I believe I was one of the first, if not the first, to produce an X-ray of a fracture in court to confuse the opposite side. Barium meals, pyelograms and the like were unthought of. Gastrectomy and colectomy were not practised; we had none of the advantages of gas and oxygen anaesthesia or blood transfusion, nor the benefit of deep X-rays and radium.

We are inclined to think that it is not possible to advance much further with known lines of treatment and diagnosis, but we cannot tell what limitations there may be with the use of the Metropolitan Vickers machine or with larger radium bombs.

There is a new diagnostic X-ray apparatus known as the "Introskop", in which by an electrically timed mechanism the tube is moved across the field while

the film moves in the opposite direction. There is scope for development in this.

There is the new ultra-low voltage X-ray machine, the use of which may replace the use of radium in some situations—possibly in the mouth and rectum.

In Russia attempts are being made to produce synthetic radium by bombarding the atom, and quite apart from new forms of apparatus, the methods of employment of gamma and X-rays are constantly changing. With radium there is a tendency to swing from interstitial to surface and distance irradiation, and to prefer the small dose for a long period to larger doses for a short period. With deep X-rays split doses are being further split to catch more and more cancer-cells in the vulnerable phase of pre-mitosis. If the macrophages are going to remove all dead and dying cancer-cells and these are to be replaced by fixed tissue-cells, it is essential that the blood-supply of the tumour bed should not be restricted too soon by a shattering attack on the tumour.

It would be extremely interesting if one could look ahead some twenty-five years as one can look back. Science cannot stand still; so can we doubt that the progress of the next quarter of a century will not compare with that of the past?

CONCLUSION.

I have told you something about the organization of the attack on cancer and its economic value, and really very little about the actual research which is going on, but it would take many lectures to do this. If you are interested I would recommend you to read the *Annual Report of the British Empire Campaign*, which is as full of thrills as any Edgar Wallace novel. The attack is proceeding all along the line with increasing energy year by year. If the past is any criterion of the future it is going to be a war of attrition with many "rainy seasons". Those who are carrying on the fight now will need supports, perhaps many lines of support, for years to come, and your generation is almost sure to be called up. I hope I have interested you in the subject, and perhaps inspired some with enthusiasm for cancer research.

Lord Moynihan, with apt phraseology, once described cancer as the "captain of the dead". I look forward to the time, though I hardly expect to see it, when this gruesome title will cease to be apt, and we can change it to the "captivity of research".

In conclusion, Gentlemen, let me remind you, with a parting blessing, that you are attached to a Hospital that has flourished for over 800 years, and that you have great traditions behind you. If you are true to these, happiness and success are yours.

GASTRIC SECRETION IN HEALTH AND DISEASE.



XACT knowledge of the gastric secretion dates no further back than William Beaumont, whose *Experiments and Observations on the Gastric Juice and the Physiology of Digestion* first appeared in 1835. A cheap facsimile of the original edition of 1833 together with a biographical essay on Beaumont by Osler was published a few years ago, and this is a book which every medical student should read—it can easily be read in an evening—and which some of you will wish to keep. It is one of treasures of physiology, and if Harvey was the founder of the experimental method in biology, Beaumont was the pioneer of human experiment, or clinical science, as it is now called. His opportunity was a unique one, but the advantage to which it was turned by this young military surgeon should be an inspiration to everyone who handles patients. Beaumont's experiments and observations were carried out on Alexis St. Martin, a French-Canadian, who at the age of 18 was accidentally wounded by the discharge of a musket. The shot blew away part of the lower chest wall, and for a time thorax, stomach and peritoneal cavity communicated freely with each other. It is a miracle that the lad recovered, a miracle that is partly explained by the unremitting care of Beaumont, who for two years dressed his wounds daily, and for a considerable part of the time twice daily. When the wound healed, Alexis St. Martin was left with a valvular opening through which the interior of the stomach could be examined and stimulated and samples of the chyme removed. In the ordinary way the valve was so efficient that there was no leakage through the fistula, and St. Martin had a strenuous existence, travelling thousands of miles by canoe and portage, and living to a ripe old age in spite of an intemperate mode of life. It is a surprise to find how many data which we attribute to recent inventions such as X-rays, the fractional test-meal and the gastroscope were discovered by Beaumont over a century ago, and where the results of these indirect observations differ from Beaumont's direct inspection and handling of the stomach, we shall often prefer to follow Beaumont.

COMPOSITION AND SITE OF PRODUCTION OF GASTRIC JUICE.

In Beaumont's time analytical chemistry and histology were undeveloped, but it is now known that the gastric juice contains a number of constituents, hydrochloric

acid, salts, proteolytic ferments and mucus, which are produced by different cells and in different parts of the stomach. If we inject into an animal the salts which give the prussian blue reaction in the presence of hydrochloric acid, we find on opening the stomach that it is divided into two main regions, the fundus or proximal two-thirds of the stomach (I shall call all this the corpus or body) which is stained blue, and the pyloric end which is uncoloured; there is also a small uncoloured zone around the cardia. The two regions can be equally well demarcated by injecting histamine, which produces an intense engorgement of the body of the stomach but does not affect the pyloric antrum. The physiological distinction between the two main portions of the stomach is based on a difference in anatomical structure. The glands of the corpus, which are long and tubular, open in small groups into the bottom of the gastric pits. They contain three types of cells: the chief cells, which are said to secrete pepsin; the parietal cells, which are said to secrete hydrochloric acid; and the mucous neck cells, which are said to secrete an alkaline fluid rich in soluble mucus and sodium chloride. The tubules in the pyloric end of the stomach are simpler than those in the corpus, the lumen is larger and the tubule is more coiled, so that in perpendicular section they are seldom seen as longitudinal structures. They are lined by a mucoid type of cell which looks very much like the mucous neck cell in the corpus, but it stains a little differently, and there is much reason to doubt whether it is really the same kind of cell. The pyloric cells produce a scanty alkaline secretion, rich in mucus, and a similar fluid is secreted by Brunner's glands in the duodenum. The cells of Brunner's glands bear a remarkable resemblance to those of the pyloric glands, and recently Meulengracht has suggested that the pyloric glands and Brunner's glands are related in function, and secrete not merely an alkaline diluting fluid, but also the ferment or hormone whose absence leads to pernicious anaemia. It is possible that disturbance of the secretion of alkaline mucoid diluting fluid by the mucous neck cells of the fundus and the pyloro-duodenal glands may have something to do with the development of peptic ulcer, but at present that is no more than speculation. On the other hand the evidence that pernicious anaemia is due to disease of the pyloro-duodenal glands is very convincing.

GASTRIC AND PYLORO-DUODENAL SECRETION.

Until Meulengracht's work, we had been in a dilemma about pernicious anaemia. We knew that achlorhydria was an essential symptom of pernicious anaemia. We also knew that pernicious anaemia could be cured by

substitution therapy with desiccated stomach. Castle and Wilkinson had shown that an "intrinsic factor" was present in the gastric juice, which was different from pepsin and rennin, and which acted on a principle or "extrinsic factor" present in the diet to produce the substance effective in pernicious anaemia. A different interpretation has been offered by Greenspon, who regards intrinsic factor as an hormone and not a ferment, but this does not materially affect the position. The real difficulty was that in spite of all this evidence of a gastric defect in pernicious anaemia, animals whose stomachs had been completely removed did not develop pernicious anaemia, and men only rarely after partial or total resection of the stomach. Meulengracht treated patients suffering from pernicious anaemia with carefully isolated fractions of stomach and duodenum. He showed that material from the body of the stomach was inactive, while material from the pylorus or from the upper part of the duodenum was active. His solution of the problem is that pernicious anaemia is not a disease of the stomach, but of the pyloro-duodenal segment. It is theoretically possible for pernicious anaemia to be associated with a normal secretion of acid juice by the body of the stomach, but a lesion which abolishes the pyloro-duodenal secretion practically always abolishes the acid secretion as well. On the other hand, resection of the stomach leaves Brunner's glands intact, and pernicious anaemia does not develop although the gastric secretion proper is lost.

These experiments are much more difficult than you might think, owing to the natural variation in the potency of animal stomach and in the responsiveness of patients, and more work must be done before we can regard the facts as established. Dr. E. F. Scowen has confirmed the activity of preparations of duodenum, but we are greatly handicapped by shortage of patients. There is still much to be discovered about pernicious anaemia and the remedies available for it, and in a great teaching hospital we should never be satisfied merely to apply routine measures, but should regard every patient in relapse as an opportunity to make some small addition to knowledge. It seems nevertheless that just as we speak of gastro-duodenal ulceration, so we should speak of gastro-duodenal digestion. The gastro-duodenal secretion consists of two distinct moieties: the typical gastric juice, which is secreted by the body of the stomach and contains acid, pepsin and rennin; and the pyloro-duodenal secretion, which is much less voluminous and contains alkali, mucus and anti-pernicious anaemia ferment or hormone. The pylorus also produces *gastrin*, which is responsible for the chemical phase of gastric secretion, while the duodenum produces *secretin*, which stimulates the

secretion of pancreatic juice, and *cholecystokinin*, which causes the expulsion of bile from the gall-bladder. It is probable that these three hormones are quite distinct from each other and from Castle's *haemopoietic ferment*, and it is apparent that the pyloro-duodenal segment is a complex and important area.

FUNCTION OF STOMACH.

As men and animals can live for indefinite periods without a stomach, it is obvious that the gastric secretions are not essential to life or to the digestive process. The main function of the stomach is to act as a kind of hopper in which the food is triturated and delivered in appropriate quantities to the intestine. The acid is a disinfectant and activates the pepsin, which initiates the breakdown of protein, but the main function of the secretion is to dissolve the mineral elements of the diet, more especially calcium and iron. In experimental animals a moderate hypochromic anaemia sometimes develops after the gastrectomy, more especially during pregnancy. In women, in whom the need for these minerals is greater than in men, absence of acid may give rise to a "conditioned deficiency" of minerals, but it is not difficult to repair this by increased intake. Many patients with complete achlorhydria have been watched for a number of years and have remained in perfect health. On the other hand, we must regard the pyloro-duodenal secretion as essential to life, for in its absence pernicious anaemia develops.

SECRETION OF GASTRIC JUICE.

Gastric juice is secreted in three phases: the cephalic or psychic phase induced by the thought, perception or chewing of food; the gastric or chemical phase induced by the presence of food in the stomach, and the intestinal phase induced by the passage of chyme into the intestine. The cocktails, the *hors d'oeuvres* and the soup with which a good dinner begins; the meat extracts, sauces and condiments which are added to the food; and our favourite hot drinks, such as tea, coffee and cocoa, are all powerful stimulants of gastric secretion, and have no place in a diet intended to depress gastric secretion. Not a great deal is known about the intestinal phase of secretion, and it appears that some foods, such as fat, on entering the intestine actually inhibit the secretion of acid by the stomach. Surgeons sometimes endeavour to eliminate the gastric phase of secretion by excising the pyloric antrum, from which they believe the stimulus to secretion arises, or by introducing the food direct into the intestine by a jejunostomy, but I think the benefit of these operations can be explained in other ways than by their action on

gastric secretion. In health the secretion of gastric juice ceases when the stomach is empty, as Beaumont saw with his own eyes:

"The inner coat of the stomach, in its natural and healthy state, is of a light, or pale pink colour, varying in its hues, according to its full or empty state. It is of a soft, or velvet-like appearance, and is constantly covered with a very thin, transparent, viscid mucus, lining the whole interior of the organ.

"Immediately beneath the mucous coat, and apparently incorporated with the villous membrane, appear small spherical, or oval-shaped, glandular bodies, from which the mucous fluid appears to be secreted.

"By applying aliment, or other irritant, to the internal coat of the stomach, and observing the effect through a magnifying glass, innumerable minute lucid points, and very fine nervous or vascular papilla, can be seen arising from the villous membrane, and protruding through the mucous coat, from which distills a pure, limpid, colourless, slightly viscid fluid. This fluid, thus excited, is invariably distinctly acid. The mucus of the stomach is less fluid, more viscid or albuminous, semi-opaque, sometimes a little saltish, and does not possess the slightest character of acidity. On applying the tongue to the mucous coat of the stomach, in its empty, un-irritated state, no acid taste can be perceived. When food, or other irritants, have been applied to the villous membrane, and the gastric papilla excited, the acid taste is immediately perceptible.

"The gastric juice never appears to be accumulated in the cavity of the stomach while fasting; and is seldom, if ever, discharged from its proper secreting vessels, except when excited by the natural stimulus of aliment, mechanical irritation of tubes, or other excitants. When aliment is received, the juice is given out in exact proportion to its requirements for solution, except when more food has been taken than is necessary for the wants of the system."

Pavlov followed Beaumont in holding that the fasting stomach did not normally secrete juice, and though doubt has recently been cast on this view, I should recommend adhering to it until the evidence to the contrary is stronger than at present. It is true that when we pass a stomach-tube in a normal fasting individual we may aspirate anything up to 200 ml. of juice—commonly about 20 ml. The usual small amount can be explained as the after-secretion which has remained in the stomach since the last meal. If we leave the tube down and aspirate continuously, it is possible to go on withdrawing juice at a rate of about 20 ml. or more per 10-minute period, and with an acidity frequently over 100. This so-called "basal secretion" is very constant in a given individual, the rate and acidity of the secretion being identical when the experiment is repeated, but not enough work has been done to correlate it with conditions of disease. I believe that the basal secretion is excited by the passage and the presence of the tube, and I do not think that any valid conclusions about the movements or the secretions of the fasting stomach can be drawn from experiments in which tubes, balloons, opaque media or indeed anything is introduced into the stomach. Nevertheless there can be little doubt that the fasting stomach does sometimes secrete juice, and this is particularly true of patients with peptic ulcer. There is indeed much to suggest that the volume and the continuous nature of the gastric secretion are more

closely correlated with peptic ulcer than is the actual acidity. In patients with gastric and duodenal ulceration there is often a large amount and a high concentration of acid in the fasting stomach. Dr. Avery Jones has recently taken samples from the stomach throughout the 24 hours in cases of peptic ulcer before and after gastro-enterostomy, and has demonstrated the frequency with which the acidity rises to high levels throughout the day and night. In the X-ray room also we frequently see much gastric juice in the fasting stomach of patients with ulcer although there is no obstruction. Recently we had a patient who complained of epigastric distress and splashing more than a year after gastro-enterostomy, and Dr. Finzi found that his fasting stomach was full of juice which showed an unmistakable fluid level in the fundus.

TESTS OF GASTRIC SECRETION.

The most useful clinical methods for the investigation of the gastric secretion are the Rehfuß test, the histamine test and Castle's test. The Rehfuß test consists in the fractional analysis of a gruel meal; the meal is a natural one, and owing to the mass of data which have accumulated about the volume and character of the resting juice and the form of the curve it is a helpful diagnostic procedure. The histamine test is more on a par with the Van Slyke test of renal function, as it is a measure of the efficiency of the stomach as a secreting gland. Histamine is possibly the hormone responsible for the chemical and intestinal phases of gastric secretion, and at any rate it is the most powerful stimulus known for the secretion of hydrochloric acid by the stomach. Only about half the people who have apparent achlorhydria in the Rehfuß test prove to have true achlorhydria when tested with histamine. Whether it is an equally effective stimulus to pepsin, rennin and Castle's factor is less certain. The method is to inject histamine HCl in a dosage of 0.1 mg. per 10 kilos of body-weight, and to aspirate all the juice secreted over 10-minute periods till the flow subsides—usually about one hour. The greatest volume of juice secreted in a 10-minute period and the highest concentration of acid attained are taken as indices of the secretory capability of the stomach. The product of these two figures gives the maximum 10-minute output of hydrochloric acid of which the stomach is capable. The histamine test is a valuable research technique, but it is unlikely that it will displace the Rehfuß test for diagnostic purposes, as it is more unpleasant for the patient and it requires trained people to carry it out. Castle's test, which is designed to discover whether the juice contains "intrinsic factor", is an extremely tedious and arduous business. Every

morning for 10 days a histamine test is performed on the patient, and the juice obtained is incubated with raw beef, and then administered by stomach-tube to a case of pernicious anaemia in relapse. If intrinsic factor is present there is a reticulocyte crisis and improvement of the anaemia. Efforts have been made to simplify the test by giving histamine once only and injecting the juice into rats or guinea-pigs, but these modifications are of doubtful reliability.

VARIATIONS IN ACIDITY.

Test-meals have now been performed on large numbers of apparently healthy people, and it has been found that there is no narrow zone into which the secretions of all healthy people fall. Acid values may vary from 0 to 160 units (0.6% HCl) and 10 minute volumes from 10 to 100 ml. without any symptoms of disease. Nor is any particular disease except pernicious anaemia associated with a characteristic type of gastric secretion. It is true that peptic ulcer tends to be associated with hyperchlorhydria; and gastritis, carcinoma of the stomach and idiopathic hypochromic anaemia tend to be associated with hypochlorhydria; but the test-meal in each of these diseases overlaps so considerably the normal variation that the difference is only of statistical significance.

Heredity may play a part in these variations, though it is doubtful whether achlorhydria is ever an inborn error of secretion. Hurst described a hypersthenic diathesis with a short high stomach and hyperacidity, and an asthenic diathesis with a long atonic stomach and hypoacidity, but further work has shown that there is no such correlation between the size and shape of the stomach and the gastric secretion. It is possible that some families inherit a vulnerable stomach, which withstands badly the wear and tear of life and tends to develop an acid or anacid gastritis, just as other families run to emphysema, osteo-arthritis or coronary sclerosis. There is a sex difference, at any rate in the early years of life, acidity reaching higher values in males than in females. Acidity diminishes with age, but this is brought about not so much by a general or universal decline in the activity of gastric secretion, as by the occurrence of an increasing percentage of people with achlorhydria. Defective diets increase the incidence of achlorhydria, so that there are considerable racial and social variations.

There is possibly a direct, but not very close, correlation between the gastric secretion and the haemoglobin and carbon dioxide content of the blood. On the other hand, the strictest salt deprivation does not affect the secretion, and for reasons which I shall go into later it is wrong to eliminate salt from ulcer diets, though of

course indigestible salt meats and salt fish must be avoided. Acute nervous upsets seem to depress the gastric secretion, more protracted worry to augment it. I refer you to Dr. Daniel T. Davies' Bradshaw Lecture (1935) for a fascinating account of the relation of emotional disturbances and lesions of the brain and pituitary gland, not only to hyperchlorhydria, but also to hæmatemesis and ulcer. The depression of gastric secretion which occurs in pregnancy, in thyrotoxicosis and in vitamin B deficiency is, in its earliest stages at any rate, a functional disturbance without morbid changes in the mucosa, though in the last two instances it may give place to a permanent achlorhydria and presumable atrophy of the mucous membrane, if the depression is not alleviated in good time. The relation of food constituents, vitamins, hormones and similar agents to the proper functioning of the alimentary tract is a chapter of medicine of which at present we see only the beginnings, but which may prove of the utmost importance in the treatment of dyspepsia.

QUANTITY OF JUICE.

The total volume of gastric juice is usually stated to be 1500 to 3000 ml. in the 24 hours, with about 0.3%

hydrochloric acid. To give a better idea of what those figures mean, let me point out they are equivalent to 5% of the body-weight and 10% of the total chloride contained in the body. Normally the juice is re-absorbed in the intestine, and we shall see later how badly the organism fares when it is lost through vomiting or similar causes. The reaction of the fasting duodenum and intestine is neutral or alkaline, pH 7.0 to 7.6 in the dog, but the inrush of the acid chyme after meals is such as to swing the reaction of the upper part of the intestine slightly to the acid side. Mann and Bollman (1930) found that in dogs after food the pH of the duodenum sinks on an average to 5.5, rising slowly to 6.8; there are frequently values of 4.6, and very occasionally as low as 1.8. In the jejunum the pH falls to values between 6.2 and 6.8. In the ileum there is a slight tendency to acidity to a degree of 6.5 in the upper portion, but little change in the lower portion after meals. The slight acidity of the upper small intestine is probably of importance in the absorption of minerals such as iron and calcium.

L. J. WITTS.

(To be continued.)

A STATE MEDICAL SERVICE: CONTRASTING VIEWS.

THE DOCTOR OF THE FUTURE.

By SOMERVILLE HASTINGS, M.S., F.R.C.S., L.C.C.,
Aural Surgeon to the Middlesex Hospital.

IN this short article I want to appeal especially to medical students, and to try and show them that the highest interests of the public, the science of Medicine and the individual doctor alike, can best be served by the development of a complete State medical service, providing, free from immediate cost, the best that medical science can give to all who are willing to take advantage of it.

People become medical students for many different reasons. Some of you who read this may have been born with a brass plate in your mouth—to use a very mixed metaphor; some may, perhaps, have acquired during school days a special interest in the healing art; and some, like myself, may have even allowed themselves to be pitchforked into Medicine to avoid a dull and uninteresting business career. But whatever other motive you may have had, you all want to make a reasonable living and be of some real use in the world. You will not be content with merely patching up people when they are ill; you want to take your share in making people healthier and in preventing disease.

IDEALS OF MEDICAL SERVICE.

By GEOFFREY EVANS, M.D., F.R.C.P.

THE health of the community has become the concern of the nation. The National Health Insurance Acts register this fact. The Ministry of Health was created by Act of Parliament in 1919, and since then has been busily engaged in promoting measures for the improvement of the nation's well-being. The Local Government Act, 1929, has already succeeded in providing a better medical service for those who cannot afford to pay the full cost of it themselves. The Voluntary Hospitals (Paying Patients) Bill has passed its third reading. The Midwives Bill and two Consolidation Public Health Bills are now before Parliament. Great changes in fact are taking place. Still greater changes are in prospect. It is natural, therefore, that many minds are peering into the future, and some people think it is all leading to the institution of a State medical service.

COUNTING THE COST.

There is no doubt that the resources available to-day for the treatment of the sick are inadequate, and there

You know quite well that the improvement in the national health, of which we are all so proud, is due much more to better preventive services than to greater skill in treatment. You have learned how typhoid fever has been almost wiped out by a clean water supply, and how infantile diarrhoea has been greatly reduced by cleaner streets and instruction in the Maternity and Child welfare centres, and you want to take your place in a unified preventive and curative service, teaching people the laws of health and seeking out the causes of disease, as well as treating those who are ill. You will never, I hope, be content to be a tradesman in health matters, merely selling your skill in the treatment of declared disease to those who can afford to pay for it and refusing it to the rest.

HOSPITALS AND PRIVATE PRACTICE.

* You are being trained in a Hospital with a wonderful record of public service, and with a tradition of giving help to all who need it. None are ever sent away because they cannot afford to pay for the services of your Hospital. Moreover, there is no competition there in the ordinary business sense of the term. The eye man is not a bit jealous of the skin specialist if he happens to have more people attending his out-patient department. The only competition that exists is in skill in the cure of disease and the discovery of something new in pathology or treatment. And because of this all the members of the staff work amicably together as a single unit. When you leave hospital, you may very likely go into general practice, and find yourself competing for patients with every other doctor in your district. Directly I was qualified, while waiting for a house appointment, I went on as assistant to a doctor in the north of London. Of course I was very young and ignorant, but the doctor needed a holiday, and before many weeks had passed told me he was going away and would leave me in charge. "But what," I asked, "is to happen if I meet with a case I cannot diagnose or do not know how to treat? May I call in Dr. So-and-so, who lives opposite?" "My dear idiot," was the kind reply, "that is the very thing you must not do, for obviously if you do, the next time your patient is ill, he will send for Dr. So-and-so and not for you or even me". You will never persuade me that competition of this sort encourages good work or brings out the best in people.

If you were to ask yourself why the great Hospital to which you are attached as a student is so much trusted by the public, I think the reply would be, "Because of the completeness of the service that it gives". The public know, or ought to know, that there every possible

is a great need for their improvement. It is equally obvious that a better medical service could be provided at once if more money were available to finance it. It might be thought that the institution of a State medical service would best solve these difficulties, because Parliament has the power of the purse, and the power, too, to force the change by legislative enactments. By those in favour of a State Medical Service it is maintained that under unified control much of the present waste and overlap of medical services would be avoided. The present growth of specialization would be quickened by the segregation of special work, and by the appointment of specialists and the organization of their work better results would be obtained.

Considerable experience of the lines on which a State medical service might be developed is already available in the medical services of the Army, Navy and Air Force, and in the Indian and Colonial Medical Services. There is also a large organization working under the control of the Ministry of Health which could be expanded. Thus in London the Hospital and Medical Services Committee of the London County Council has about 40,000 beds in its hospitals (apart from mental hospitals), and is responsible for the treatment of more than 200,000 new in-patients in a year. It has a district medical service, which is carried on by both whole-time and part-time medical officers. The Council makes arrangements for the inspection and treatment of children attending ordinary elementary and other schools. It is responsible for the operative treatment of adenoids and tonsils, and for the treatment of dental and visual defects in children on a large scale. In fact, the London County Council is responsible for the provision of a large medical and surgical service which, including mental hospitals and mental deficiency services, costs well over £7,000,000 per annum. Such a service as this can be expanded without much difficulty, and while the advantages of such a unified service are rather obvious, there are, nevertheless, some drawbacks to such a system which require consideration.

In spite of the economy which would be effected by the elimination of medical services which now overlap, by the wholesale purchase of medical stores and equipment and by other means, the nation would be faced with an enormous additional expenditure by the institution of a State medical service, because so much work is now done voluntarily or for a nominal fee by individuals and agencies, and all this would have to be paid for out of public funds. For instance, the annual income of the London voluntary hospitals alone is about £4,000,000. Again, to bring the dependants of insured persons under the National Health Insurance Acts would cost some £14,000,000. These two items

method of diagnosis and treatment is at their service; that the pathological, bacteriological and biochemical laboratories are there to help them; that the records of their own case or similar cases can be looked up for their benefit in the registry; that in most cases they will be treated by a doctor who has had special experience of the type of disease from which they are suffering, and that in complicated cases several doctors, all specialists in a particular branch of medicine, may assist in their cure; in a word, that there is genuine team work in a big general hospital.

"TEAM WORK."

Like most students, you hope to know much more than you do at present when you are qualified. And so you will, until you forget it. But you will never know all there is to be known in medicine. Therefore you will have to work as part of a team if you are going to be really efficient. In my view the general practitioner will always be needed, to act as guide, councillor and friend to the family, and to keep the individual health record of every person. He will also always have to act as diagnostician, besides providing treatment for many cases. But he can never do the best work unless he can secure the help of a physician or a surgeon or a specialist whenever he needs this. I know quite well that the doctor who lives in London or some other large town can usually get a second opinion for his less well-to-do patients at a hospital, but only of course if his patient is well enough to travel there. But in the country this is much more difficult. Only in a unified State medical service is true team work possible.

One of the best general practitioners I know, albeit a strong opponent of a State medical service, told me the other day that although he attended people of many social classes, he got most real satisfaction from the treatment of his panel patients, because he could give them the attention that it seemed to him they needed, without any ulterior consideration entering in. With ordinary paying patients, he said, many other things had to be thought of. If, for instance, the case needed careful watching and therefore a good many visits, he was liable to be thought to be trying to run up a heavy bill. If, on the other hand, he attended less often, he might be accused of neglecting his patient. I am certain that it is bad for both doctor and patient for the one to be economically dependent upon the other. And when the opportunity of obtaining medical treatment during illness depends on the possibility of paying for it, things are even worse. There are millions of working-class families in this country living just within their incomes, without any margin at all. Rightly

give an indication of the additional cost such a service would be to the nation. In order to justify so revolutionary a change, and in view of its almost prohibitive cost, a State medical service would have to provide a service not only better than that at present available, but also better than that likely to develop in the course of the next ten or fifteen years under the present régime.

AMBITION, PROMOTION AND GAIN.

As a matter of fact the institution of a State medical service would not be unwelcome to many members of the medical profession who are at present engaged in private practice. Some at least would be glad to exchange their present independent status for a fixed appointment, and their hard-earned and sometimes precarious livelihood for a regular salary paid by the Ministry of Health. Their loss of independence would be compensated for to some extent by lessened responsibility. In some cases the reduction of their earning capacity would be more than made good by the certainty of their income, by their smaller out of pocket expenses, shorter and more regular hours of work, and a pension to look forward to in their old age. In this matter, however, it is the medical service which must come first, and not those who provide it. It is with the interests of the community as a whole that the nation is first concerned rather than the interests of the medical profession. And as regards the interests of the community, it is all too uncertain whether the service provided by a State organization would be as good as that provided at present, or as good as that which can be provided by the development of present services in the near future. There are, of course, men of certain character who do their utmost out of pure interest in their work without thought of reward. Their zeal and enthusiasm spur them on. But for the majority it is in human nature to look for a reward for work done, and the incentive is greater when extra work brings extra gain. It is unavoidable that progress in a State service is largely dependent on the passing of years, attention to rules and friendly co-operation rather than rivalry with one's peers. To many men there is something damping to greatest effort in the relative certainty of the future, the regularity of the work, the dependence on superiors, and the need to obey and oblige them. It is an atmosphere which maintains an average level of work and ability, but it does not lead to the highest level of achievement of which a man is capable.

In a State medical service the average medical officer would receive promotion and an increase in his salary according to his years of service. But for a doctor in private practice there is no such certainty, because his position and income are more nearly in accord with his

or wrongly they may not like the Poor Law doctor, and when the mother or a child falls ill, the alternatives are sending for a private practitioner and doing without some necessity of life to pay him, or waiting to see what will happen. The latter alternative is too often chosen, and an appendix abscess becomes a fatal general peritonitis, or a diphtheria, readily cured by antitoxin in its early stages, becomes too far gone for recovery. In the best interests of the public, as well as the individual, it ought to be easy for everyone to obtain medical advice directly he feels he needs it. Moreover, people should be encouraged to come for periodical medical examination, so that the earliest beginnings of disease may be detected. The experience of the Pioneer Health Centre has shown that in many, indeed most, apparently healthy people some condition requiring treatment is discovered by a careful medical examination. In a State medical service the doctor's business would be to keep his patients fit, as well as to treat them when they are ill. He would instruct them in the laws of health, encourage them to be medically examined at regular intervals, and do his best to have put right anything in the home or working life that militates against their health and well-being.

FREE CHOICE OF DOCTOR.

You will tell me that English people do not like being regimented, that they will not put up with the doctor provided for them by the State, but will want to choose their own. I quite agree. But there is no reason why a patient should not choose his own doctor in a State medical service, although obviously a wider selection will be possible in town than in the country, just as it is to-day. Unless a doctor allows himself to be over-worked and therefore inefficient, he cannot deal with more than a certain number of patients, and this applies equally to the doctor in private practice and in the national service. By allocating the required number of doctors to a given area, it would be easy to permit any individual to select his own doctor, just as is now carried out under the panel system. Doubtless the very popular doctor would have his full quota of patients and even a waiting list, but, on the other hand, there would be many people who would not trouble to make a selection, and these could be allocated to the less popular or more recently appointed doctors.

The greater possibilities of regular off-duty time and study-leave provided under a State medical service must be obvious to all. The greater facilities for research work under such a system should also appeal to the keen men. The fact that in the past much more original work has been produced by those engaged in

ability and industry. It is common knowledge to anyone who has served in a State medical service how often a complete "dud" may be found in a position of authority. And more than this, it is heartrending to find outstanding professional ability rewarded by promotion which brings with it administrative responsibilities, so that a good doctor may be changed to a bad clerk. A whole institution may suffer as a result of bad administration, and the work in a department may change beyond recognition with a change of its head. Such difficulties may arise on occasion in voluntary and private institutions, but they less often occur because the process of selection of men for responsible posts is a matter of election, and when they occur the results are less disastrous because as a whole the units concerned are smaller. Further, in medicine practised as it is at present there is a minimum of money spent on organization, and a maximum of money spent on the actual service provided. In a State medical service, on the other hand, there must be a far larger proportion of money spent on clerks to keep records, on inspectors to supervise and control the work done, and on buildings to house this staff.

THE FAMILY DOCTOR.

So far we have only considered the relative expense of a State medical service, and the standard of work that might be achieved under its auspices as compared with the present régime. But there is another and more important aspect of the problem, namely, the nature of the service to be provided. Health and sickness are such personal and vital matters that people go to a man they know and trust for professional advice. Anyone who has experienced real illness, or who has been responsible for the health of a friend or loved relation, knows what it means to have an understanding and trustworthy doctor in attendance. In case of doubt and difficulty, or when there is great anxiety, the patient, the doctor or the relatives may ask for other or more expert advice, but the doctor will keep his position of friend and final adviser. By retaining his responsibility for the care of his patient he will protect him from injudicious courses, and he should always provide the standard of sane opinion against which the advice, even of experts, may be measured. Every Harley Street consultant knows that ill people who have no such general practitioner to rely on are like lost sheep and without guidance. As many of the public as can afford it and who have had the experience of a good doctor's care will rarely take other advice, and certainly no advice that leads to drastic action without first consulting their general practitioner and friend.

There is, unfortunately, a tendency nowadays for

hospital rather than general practice does not, in my opinion, indicate that there is any essential difference in the mental calibre of the two classes. It indicates that the facilities in hospital are greater, that selection of cases is possible, that laboratory facilities exist, that there is the possibility of greater co-operation because of the absence of commercial competition. Under a unified State medical service similar conditions would exist, and there would be, in consequence, a much greater opportunity for research, and in particular for investigation into the earliest beginning of disease, about which we know so little at the present time.

PUBLIC HEALTH.

I have not the space to discuss at any length the improvements in the national health that are to be anticipated under a State medical service. How can you expect a healthy population under the present conditions of disorder and chaos in health matters? It has been pointed out that maternal mortality and morbidity are unnecessarily high and are even increasing. How can you expect anything else with conditions as they exist to-day? In a single borough of London there may be literally dozens of individuals and organizations all dealing with maternity cases, but with little or no co-ordination between them. There will be private midwives and doctors (many of whom deal with less than half a dozen maternity cases a year); there will probably be a voluntary hospital and an L.C.C. hospital each with maternity beds. There may be a municipal maternity hospital or municipal midwives or both under the control of the borough council, and there may be one or more voluntary maternity charities as well, each working independently of the rest. Can you be surprised that under such conditions the maternal mortality-rate remains high? Order must replace chaos if the national health is to improve.

people who are ill to consult specialists in the first place, and to attach perhaps too much importance to their opinion and advice. This, however, is a phase which will pass in a few years' time, because the path of analysis (not only of the body but also of the mind) which we as a profession are now quite rightly following will ultimately reach a turning, and synthesis with all it means will come into its own again. When that time comes the knowledge and understanding of the general practitioner will again be appreciated at its true worth. Specialists and expert opinion will no doubt be made even more use of than at present, but both those who are well and those who are ill will get their knowledge of fundamentals and most often the determining advice from the general practitioner of their choice.

THE RICH AND THE POOR.

For those who can afford it this is the chosen plan of medical service now. No institutional treatment can take its place. No whole-time public service can be of the same value to a man in need of medical service as is the general practitioner who is paid for his work, and who is at the same time the trusted adviser and servant of the public that employs him. It is this kind of service, whether general or specialist, which most nearly approaches the ideal, not only because it provides what the public most wants, but also because on frequent occasion it brings out the best qualities inherent in human nature both in the patient and his medical adviser. It may be objected to this that a private medical service will never come within the compass of the poor, and to those who are influenced by communistic doctrine, it may seem unfair that a better medical service should be available for some members of the community than is available for others. It is, however, a matter of fact that the interests of the mass are dependent on the physical, intellectual and moral superiority of those above the average. As was lately written in the *Times*, it is by such variations of outstandingness that the average itself is drawn upwards and onwards. There must be no smiting off of the poppy-heads simply because they are "more than common tall". For the future we must strive for the improvement and extension of medical services on present lines. By contributions from the State, and by the growth of insurance schemes, even detailed investigation and specialist treatment, which are the great expense at present, will be made available to a larger proportion of the community. At the same time the foundation of the ideal service of the future will be the provision of a first-class general practitioner for one and all.

SOME REMARKS ABOUT THE ST. BARTHOLOMEW'S COLLEGIATE CHAMBERS AND THE OFFICE OF WARDEN.

June 1st, 1842.—Extract from a letter to the Treasurer and Almoners from the Medical Officers, urging—

"That a collegiate establishment would render Saint Bartholomew's Hospital a much more efficient institution for medical education and would be productive of great benefit to society at large."

January 25th, 1843.—Extract from the Hospital Minutes:

"The Committee of Management have the satisfaction to report that the Collegiate Establishment has been opened and is now in operation."

1923. Extract from the Calendar of the Medical College:

"Owing to building operations, the Residential College is temporarily closed."

1936. Extract from the Calendar of the Medical College:

"Owing to building operations, the Residential College is closed for the present. It is hoped that there will soon be some residential quarters provided on the new College site in Charterhouse Square. This is intended to be the beginning of a College to house 70 students."

The History of the Residential College in its briefest form is contained in the extracts quoted, and now that it is hoped that a new Residential College will arise in Charterhouse Square it is opportune to review the history of the College, and say something of the men who have served the Hospital in the Office of Warden.

The information herein contained has been culled from the archives of the Hospital, from the pages of this journal in the past and by talking to some of the "elder brethren".

In 1842 the Treasurer and Almoners took the greatest interest in the proposal to open a Collegiate Establishment, and we read that on the 25th of April "Possession was obtained of Six Houses in Duke Street—which were very neatly and plainly fitted up at the expense of the Hospital and that the present doors in Duke Street were entirely closed"—entrance to the College being only through the Hospital.

As a matter of fact, the entrance to the Warden's House from the street was never closed and, I believe, exists even to this day.

In the first instance an arrangement was entered into with Messrs. Staples of the Albion Tavern in Aldersgate

"to supply the College with provisions and all the necessary articles for domestic use".

The Medical Officers were called upon to prepare Rules and Regulations for the conduct of the establishment, and among their Resolutions we find:

(a) "That the building be called the Saint Bartholomew's Collegiate Chambers."

One very much doubts whether it was ever so called, except in their report.

(b) "That the rooms on the first floor be fitted up in a manner superior to the others."

The charges are interesting:

First and second floor . . . £1 15s. od. a week.
Ground and third floors . . . £1 12s. od. a week.

These amounts included rent, provisions, attendance, coals and candles. These figures were arrived at only after the most exhaustive inquiry on the expenses of students living in lodgings.

We read that—

"Nearly all the students lunch in some way or other, the great mass at the neighbouring bakers and the remainder at the public houses. This meal consists with the majority of biscuits or bread in some form; while those who go to the public houses resort there more for beer than food."

And—

"The addition of beer is of very questionable propriety and is liable to very great abuse."

Other resolutions were:

"That an officer be appointed to take charge of the chambers and the diet and that he be called the Manciple."

"That a superior officer be appointed to have the general charge of the discipline of the Establishment and that he be called the Warden."

The undertaking to be signed by every student entering the College read as follows, and shows how definitely they came under the authority of the Hospital:

"I hereby promise to submit to all the regulations of the Collegiate Establishment and of the Hospital. I acknowledge the authority of the Officers under whose control I am placed and I undertake to abide absolutely upon all occasions by the decision of the Treasurer of the Hospital."

Further paragraphs show what a broad view the Committee took, and their genuine interest in the welfare of the students:

"The Committee beg, also, to report that they have not considered it expedient to make daily attendance at the Church imperative on the students, yet they are gratified in being able to state that many

of the pupils have attended the Prayers read in the Church each morning by the Hospitaller, the Rev. Samuel Wix."

In this way the Residential College came into being and was always full until 1923, when the Treasurer and Almoners decided that the College must be closed in order to provide further accommodation for nurses. The College was not a comfortable place, judging by present-day standards, for the rooms were small, the furniture primitive, and, needless to say, it did not improve with the passage of time. In the 80 years, however, during which it had been used, the Hospital had kept the rooms up, and successive Treasurers never lost their interest in the child of their creation. An underground bathroom had been added at some time, replacing the grandiloquently named hip-baths in the bedrooms, and even the Warden's house had a bath, and ultimately two. Gas came later—brought into the College by pipes of so inferior a quality that at intervals the mice nibbled through them. Electric light only came the year the College was closed. The closing of the College in 1923 did involve the closing of the Warden's house, but even up to 1935 the Warden had the advantage of a room in the Hospital, which was then handed over to the Cancer Department for an office.

Until the year 1923 the Warden was an officer of the Medical School, but when the College closed he became an officer of the Medical College, with merely a nominal association with the Hospital authorities. Before 1904 the Warden carried out the work now done by the Dean, in addition to his duties in connection with the Collegiate Establishment. It is to be remembered, however, that the School was not in those days the size that it is to-day. The new Warden will live on the Charterhouse site, and we can only pray that quickly the nucleus of a College will be formed and that we shall see a modern Residential College arising there.

Judging by the magnificent results of the Dean's efforts in the recent past, nothing is impossible.

We come now to discuss some of the men who have held the Office of Warden, and many of them are still amongst us:

James Paget . . . 1843	James Calvert . . . 1898
Patrick Black . . . 1851	William Douglas . . .
Robert Martin . . . 1856	Harmer . . . 1903
James Andrew . . . 1861	George Ernest Gask . . . 1906
Alfred Willett . . . 1865	R. B. Etherington . . .
William Morratt . . .	Smith . . . 1909
Baker . . . 1867	W. Girling Ball . . . 1913
Norman Moore . . . 1874	Reginald M. Vick . . . 1920
Thomas William . . .	Charles F. Harris . . . 1936
Shore . . . 1891	

You have only to look at this list to realize that

though many of them are men of note, the first is the greatest of them all.

All Bart.'s men are proud of their Hospital and of the famous men that it has produced—and Sir James Paget stands out as a giant among them all.

To other less fortunate men his name is known chiefly by the diseases that he was the first to describe with his wonderful clinical acumen—Paget's disease (later given the descriptive name of osteitis deformans), Paget's eczema of the nipple, Paget's recurrent fibroids, and Paget's "quiet necrosis". But to us he means far more than that.

There was a well-known Thomas's surgeon who, when examining at Cambridge, asked all the Bart.'s men he met who Sir James Paget was, and would only take one answer—"The last great surgeon at Bart.'s". What he considered the correct answer (though, perhaps, there are some who wouldn't agree with him) always delighted him, especially if he were examining with or near a Member of the Staff of Bart.'s.

Paget, of course, wrote long and beautifully worded reports on the College. Let me quote briefly from two of them:

"Though the collegiate system cannot make all pupils industrious, it is of great avail in preventing the idle from becoming dissolute."

"The college should not be regarded as a place for reforming those who are disposed to be idle. It is excellently suited for industrious students and for those who are inclined to follow good examples but I can see only reason for regret that under the solicitations of friends or parents any others have ever been admitted."

Of Dr. Martin it is said that one of his troubles was the frequency with which cattle driven along Duke Street thrust their horns through his dining-room windows, for Smithfield was not a dead meat market in those days.

Dr. Andrew it was who suggested that "if the students in College had a pecuniary interest in the preservation of the furniture, it would strengthen the financial position of the establishment". He therefore introduced caution money.

Sir Norman Moore—now one can begin to speak personally—was one of the greatest medical historians of his day. In fact, he held the position that Sir D'Arcy Power holds at the present time.

He was also a fine talker and an excellent after-dinner speaker, and one remark of his must not die. He made it at one of the Cambridge dinners. Speaking of two well-known Trinity men, he said, "They must remember that, though we are not Trinity men, we are yet God's creatures".

And then came Dr. Shore, who later took the office

of Dean, and who is of course well known to many of the present generation.

Mr. Harmer, who afterwards became head of the Throat Department, retired from Bart.'s some years ago, and is to-day one of the ablest protagonists in the fight against cancer.

Prof. Gask has only just left us.

Certainly the bitterest tragedy that has happened to this long line of Wardens was the tragic death of Etherington Smith—one of the finest surgeons and one of the best athletes of his time. He died with his foot on the threshold of a magnificent career.

And the last on this list that I can mention is Mr. Girling Ball. He certainly needs no introduction, for he has earned the undying gratitude of Bart.'s men now and for ever for his work in the provision of our new and splendid Medical College.

If by anything I have said in this article I have stimulated some of you to see the urgent necessity for a new Residential College, I shall feel that I have not written in vain.

And, in any case, it is good for all of us at times to look back into the past for inspiration instead of peering eagerly into the future.

REGINALD M. VICK.

STUDENTS' UNION.

CRICKET CLUB.

ST. BARTHOLOMEW'S HOSPITAL v. HORNSEY.

Played at Winchmore Hill on May 16th.
Scores: St. Bartholomew's Hospital, 203 for 4 (dec.); Hornsey, 179 for 6. Match drawn.

Perfect cricket weather and a super wicket produced by White, our new groundsman from Lords.

Winning the toss the Hospital batted first, and Johnstone and Heyland paid tribute to the work of White by sending up the run in under the hour. Johnstone left at 113, being caught at the wicket for a well-played 51. He gave one chance to the bowler when 40. Wheeler joined Heyland and the rate of scoring was maintained until Heyland was well taken at cover-point for 88. This pair had put on 64 runs. North was never seeing the ball well, but Wheeler, chiefly from well-timed shots on the off side, raised his score to 41 before being caught in the deep. At this point Mundy called the players in, leaving Hounsey over two-hours to make 204.

Anderson began bowling from the Palmers Green end, and was successful with his fourth ball, having Grundy l.b.w. for 2 runs. SIX overs later he knocked back Palmer's off and middle stumps with a grand ball, the total then being 30. Mundy was bowling steadily at the pavilion end and at the same score had Clark caught by Heyland at mid-on.

After this the bowling grew unexciting and the batting improved. The fielding was keen, and Heyland again made a good catch to send back the ever-restrained Bott. Six wickets were down for 120, and there was still three-quarters of an hour to play. It is at this stage that the Hospital so badly need the services of their two medium-paced bowlers, Cochrane and Simpson.

Halper and Tonkinson gained the better of the now very tired bowling and put on 59 without being separated. Mundy tried his less well-known bowlers in the hope of a surprise wicket, but for the third week running the game was left undecided.

ST. BARTHOLOMEW'S HOSPITAL v. U.C.S. OLD BOYS.

Played at Winchmore Hill on May 2nd.
Scores: U.C.S. Old Boys, 165 for 9 (dec.); St. Bartholomew's Hospital, 90 for 9. Drawn.

AT CAMBRIDGE, WATCHING THE HOSPITAL DRAW WITH ST. JOHN'S COLLEGE.

(Without any apology.)

Saturday afternoon at Cambridge. An overcast day with a little drizzle sometimes. Game starts three-quarters of an hour late as all Cambridge games do. They did in my day, too. The wicket is hard. But true. They won't turn the ball much on this. A batsman's paradise.

The Club engaged in an away match with Lansdowne House on April 16th, with épée and foil, winning the épée by two bouts and losing the foil by two bouts, the result being a draw.

In the first two overs three catches are missed, all in the slips. Oh dear! But Anderson catches Winlaw off Mundy in the fourth over.

Heiler and Barratt are batting well. They survive two changes of bowling, but now Harmer is coming on. Last year he took more wickets with long hops than I have ever seen before. *First ball wide on the off: a long hop, too. Heiler plays it on. 2 for 74.*

Barratt has got his 50. Nothing very exciting, except his square cuts. A pleasure to watch. Another wicket falls at 100, but then a long stand. Brooks joins Barratt.

The bowling is shocking. They are playing Old Harry with it.

200 up. Tea time getting near. Harmer has another lucky wicket when Brooks lobs the ball to Heyland at mid-on. The Johnnies declare. 218 for 4. **Barratt 128 not. Good, sir.**

After tea. Brown and Heyland open and the former is soon caught. Enter North. He and Heyland bat well. Easily. But they're bad at calling and the inevitable happens. Between them Heyland is run out. Nicholson doesn't stay long. Enter Secretary Maidlow at 3 for 61. Time to start scoring quickly if they are to get the runs.

North and Maidlow are good, especially Maidlow. *I like his style.* He hits three 4's running and later four in a row. North gets his 50 and is stumped next ball. Rather stupidly.

With Wheeler at the wicket it looks as if they may get the runs, but Maidlow is suddenly, surprisingly, bowled. **A very good 75.**

Hope vanishes. It must be a draw. It is. 199 for 8.

LAWN TENNIS CLUB.

1st VI.

Saturday, May 2nd: v. Queen's Club, at West Kensington. Lost by 9 matches to nil.

E. Corsi and W. K. Frewen were defeated by 1st pair 3-6, 2-6; 2nd pair 5-7, 7-9; and 3rd pair 6-8, 3-6.

R. C. Witt and J. B. Waring were defeated by 1st pair 1-6, 1-6; 2nd pair 4-6, 3-6; and 3rd pair 1-6, 2-6.

P. J. Haidie and G. L. Way were defeated by 1st pair 3-6, 1-6; 2nd pair 1-6, 6-8; and 3rd pair 2-6, 0-6.

Saturday, May 9th: v. St. Thomas's Hospital, at Chiswick Park. Lost by 3 matches to 6.

R. C. Witt and R. T. Gabb lost to 1st pair 1-6, 4-6; lost to 2nd pair 2-6, 4-6; lost to 3rd pair 3-7, 6-6, 4-6.

R. H. Marnett and B. S. S. Acharya lost to 1st pair 6-4, 1-6, 2-6; beat 2nd pair 6-4, 7-5; beat 3rd pair 6, 0, 6, 2.

R. H. Dale and J. D. Loughborough lost to 1st pair 1-6, 2-6; lost to 2nd pair 2-6, 1-6; beat 3rd pair 8-6, 6, 4.

2nd VI.

v. West Ham Schoolmasters' Association, at Winchmore Hill; won by 8 matches to 1.

v. University College, at Winchmore Hill; won by 9 matches to nil.

FENCING CLUB.

On April 29th the Club held a meeting at which the officers were elected and plans discussed for the coming season. Next month, when the suggestions have taken concrete form, the full programme will be announced on this page. A full list of fixtures will be arranged and, if possible, a fixture list will be issued. With this early warning, if team members can submit a rough idea of the dates they will be available, the possibility of matches falling through at the last moment will be avoided.

The Club engaged in an away match with Lansdowne House on April 16th, with épée and foil, winning the épée by two bouts and losing the foil by two bouts, the result being a draw.

GOLF CLUB.

In the Staff v. Students match at Sandy Lodge on May 20th the Students were victorious for the first time in four years, winning by 13½ points to 11½ points. They conceded two bisques to the Staff in both singles and foursomes. The results were as follows:

	SINGLES.	Students.	
Mr. Rupert Scott	o	P. W. Morse (3 and 3)	1
Dr. Graham	o	J. L. Cardwell (3 and 2)	1
Mr. Beatty	o	A. H. Thomson	1
Mr. Higgs	o	P. A. Knill-Jones (4 and 2)	1
Dr. Roxburgh (2 up)	o	M. H. Harmer	o
Mr. Hankey	o	A. L. Frazer (4 and 3)	1
Dr. Capper (2 and 1)	o	M. L. Mundy	o
Dr. Brewer (4 and 3)	o	G. R. Staley	o
Dr. Leishman	o	J. T. H. Butt	o
Mr. Corbett (1 up)	o	W. J. Taylor (2 and 1)	1
Dr. Patterson	o	J. S. Johnstone	o
Dr. Sparks (3 and 2)	o	R. Wepley (7 and 5)	1
Mr. Foster Moore	o	G. Gray (2 up)	o
Sir Charles Gordon-Watson	o	J. C. Newbold (3 and 1)	1
Prof. Hopwood	o	L. R. Taylor	o
Dr. Garrod (7 and 5)	o	L. S. Cane (2 and 1)	1
Dr. Withers	o		
	7½		9½

FOURSOMES.

	Staff.	Students.	
Mr. Scott and Dr. Roxburgh	o	Morse and Harmer (4 and 3)	1
Dr. Graham and Mr. Higgs	o	Cardwell and Knill-Jones (3 and 1)	1
Mr. Beatty and Dr. Capper (3 and 2)	o	Thomson and Mundy	o
Prof. Hopwood and Mr. Hankey (3 and 2)	o	Frazer and Newbold	o
Mr. Foster Moore and Dr. Brewer	o	Staley and Wepley (1 up)	1
Dr. Garrod and Dr. Leishman (3 and 2)	o	Cawthorne and Taylor	o
Dr. Sparks and Dr. Patterson (4 and 3)	o	Johnstone and Taylor	o
Sir Charles Gordon-Watson and Mr. Corbett	o	Newbold and Gray (1 up)	1
Totals	4	13½	

CORRESPONDENCE.

THE TEACHING OF THERAPEUTICS.

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

Sir,—I write to voice a feeling, not peculiar to myself, but shared by many of my fellow students in this and other hospitals. It concerns the space devoted to treatment in our lectures on clinical medicine and surgery.

Lord Horder has recently given us an impressive picture of what clinical medicine could and should be, and in this treatment figures

prominently. Yet how often does one attend clinical lectures on medicine and surgery only to find the all-important matter of therapeutics relegated to a back seat, or even—worse still—entirely overlooked! Such curt phrases as "treatment on the usual lines" and "routine therapy" are scarcely adequate. Admittedly forty minutes is a short space of time in which to cover all the ground in a clinical lecture, but treatment should have its place.

I venture to submit that from the sympathetic understanding of a patient, the first question that he will ask his adviser, after he knows from what he is suffering, will be—"What are you going to do for me, doctor?" It is just here that confidence is established, and where one can exhibit clinical acumen.

I therefore enter this plea, firm in my belief that treatment is the very basis of rational medicine and is the test of a good doctor.

I am, Sir,

Yours faithfully,

May 16th 1936.

J. B. GURNEY SMITH.

REVIEWS.

JOHANNES DE MIRFIELD OF ST. BARTHOLOMEW'S, SMITHFIELD: HIS LIFE AND WORKS. By SIR PERCIVAL HORTON-SMITH HARTLEY, C.V.O., M.A., M.D., F.R.C.P., Consulting Physician to St. Bartholomew's Hospital, and HAROLD RICHARD ALDRIDGE, M.A., Assistant Keeper in the Department of Manuscripts in the British Museum. (Cambridge: At the University Press, 1936.) 8vo. Pp. xvii + 191. With 4 plates. Price 15s. net.

It is easy to imagine the pride and pleasure which this scholarly and satisfactory book would have given to John Mirfield. Many persons have nibbled at his two great works, the *Breviarium Bartholomei* and the *Florarium*—the one medical—the other theological—but no one has hitherto examined them critically. John would have felt highly gratified to know that five hundred and twenty-nine years after his death they should have been worthy of such a careful study, and the more so because it has been carried out by a physician of his own Hospital, with the help of a scholar from Cambridge.

Many new facts emerge from the examination. John is proved to have been a member of a powerful Yorkshire family, to have been associated with Adam Rous, Surgeon to King Edward III, to have possessed houses, shops and gardens on the south side of Holborn, and to have been ordained a priest with a title from the Hospital itself. His exact position, however, remains indeterminate. He had a chamber and commons in the Priory, but he was never a Canon; he held office in the Hospital perhaps as a chaplain, and though he wrote on medicine it does not appear that he was a practising physician either in the Hospital or elsewhere.

Sir Percival shows that his works were compilations, and he gives excellent translations from the Breviary "of the signs of evil portent" by means of which death may be foretold, and of the treatise "on phthisis", which is derived partly from Bartolinus of Salerno, who flourished three hundred years earlier, and partly from Bernard of Gordon, who published his *Litium Medicina* in 1305. The immense size of the original works is shown when it is stated that the chapter on consumption is only one-third-hundredth part of the *Breviarium* and that the *Florarium* contains 173 chapters. Yet the author did not attain extreme old age, for he left his property to his mother and made her his sole executrix.

The book is a serious and valuable contribution to the history of fourteenth century medicine in England. Sir Percival has made it interesting by his running commentary on the subjects of which it treats. Mr. Aldridge had done the special work admirably. He has examined and compared the manuscripts. The plates show that his task of transcription has not been easy and are a testimony to his industry. The book is a credit to the Hospital, and should find a place on the shelves of every St. Bartholomew's man.

D'A. P.

DISEASE IN CHILDHOOD: A CLINICAL STUDY. By ROBERT S. FREW, M.D.(Ed.), F.R.C.P.(Lond.). (London: Macmillan, 1936.) Pp. 669. Price 30s.

Dr. Frew has written an original book. He has used as data his own observations on patients. Their presentation is in a new form. The book is called *Disease in Childhood*, yet it deals only with the first year of life—a fact which forebodes other volumes to follow. Even this period is subdivided into three sections: from

birth to one month, from one to six months and from six months to one year. Such a method seems to lose by reiteration whatever it gains by clarity.

Unfortunately the originality of the book does not stop here, for its author has a special hypothesis of disease causation to preach. The hypothesis is that under certain conditions in the process of birth the contractions of the uterus may squeeze an excess of blood from the placenta into the veins of the fetus, leading to a morbid condition—"hyperphlebotomia". Having stated the thesis, Dr. Frew proceeds to see to how many ills of the very young it may be applied. "Hyperphlebotomia" comes up for examination as a factor in disease causation in an unwarrantably large number of ailments. The evidence that it plays a part in such varied conditions as white asphyxia, obstetrical palsies, eczema, vaginal hamorrhage, tetany, diabetes mellitus, hydrocephalus and many others is not convincing.

The book can not be recommended. It contains too much speculation and too little proof. Reproduction of many of its arguments in an examination would be unpopular if not disastrous.

We have also received the following:

THE COMMON COLD AND INFLUENZA AND THEIR RELATIONSHIP TO OTHER INFECTIONS IN MAN AND ANIMALS. By J. E. R. McDONAGH, F.R.C.S. (William Heinemann, 1936.) Price 12s. 6d.

PROGRESS AND PROBLEMS. By W. McADAM ECCLES, M.S., F.R.C.S. The second "Rae Memorial Lecture". (Richard J. James & Son, Ltd., 1936.) Price 6d.

SALTS AND THEIR REACTIONS. BY LEONARD DOBBIN, Ph.D., and JOHN E. MACKENZIE, D.Sc. Sixth edition. (E. & S. Livingstone, 1936.) Price 6s.

EXAMINATIONS, ETC. University of Cambridge.

The following Degree has been conferred:

B.Chir.—Braithwaite, F.

Royal College of Physicians.

The following have been elected **Fellows**:

Allott, E. N., Bose, A. N., Denny-Brown, D. E., Garrod, I. P., Heald, C. B., Maitland, C. T.

The following has been admitted a **Member**:

Shaw, D.

Royal College of Surgeons.

The following were successful at the examination for the **Primary Fellowship**:

Banaji, P. R., Bliss, C. H., Fahmy, M., Gawney, D. W. C., Gould, J. H., Murley, R. S., Trubshaw, W. H. D.

Royal Colleges of Physicians and Surgeons.

The following Diploma has been conferred:

D.T.M.&H.—Dolly, R. C., Thorne Thorne, V.

British College of Obstetricians and Gynaecologists.

The following has been admitted to the **Membership**:

MacVine, J. S.

L.M.S.S.A.

Primary Examination, April, 1936.

Anatomy and Physiology.—Evans, W. M.

CHANGES OF ADDRESS.

BRISTOCKE, P. W., Foreign Missions Club, 151, Highbury New Park, N. 5.

GLOVER, N., Brailsford, near Derby.

LANGDON BROWN, Sir Walter Only's address: 31, Cavendish Square, W. 1. (Tel. Mayfair 4462.)

APPOINTMENT.

WILSON, HENRY, M.D., M.R.C.P., appointed Chief Psychotherapist to the Neurological Department of the London Hospital.

BIRTHS.

MCKINSTRY.—On May 23rd, 1936, at 1, Gunterstone Road, W. 14, to Sibyl Mildred, wife of Dr. McKinstry—a daughter.

NIXON.—On May 19th, 1936, to Mollie (née du Vallon), wife of G. P. Nixon, Red House, Rudgwick, Sussex—a daughter.

RECORDON.—On May 1st, 1936, at 51, Bateman Street, Cambridge, Frieda (née Robertson) and Esmond Recordon—a son.

SHACKLETON BAILEY.—On May 21st, 1936, at No. 14, Carlton Road, Putney, to Dorothy (née Sunderland), wife of Dr. J. Shackleton Bailey—a daughter.

SIMPSON.—On May 4th, 1936, at 26, Kensington Park Road, W. 11 to Joyce and Reginald Hugh Simpson, M.D., F.R.C.P.—a son.

TUCKWELL.—On May 17th, 1936, at St. Bartholomew's Hospital, to Phyllis Couthope (née Regerster), wife of Dr. E. G. Tuckwell, of 57, Regent's Park Road, N.W. 1—a son.

WHITE.—On May 1st, 1936, at Green Trees, Bassett Crescent, Southampton, to Alice (née Tait), wife of Dr. Herbert Oakley White—a son.

MARRIAGES.

BRIGGS—RAW.—On April 25th, 1936, at All Souls' Church, Langham Place, George David Sinclair, eldest son of Dr. and Mrs. C. F. Briggs, of Hull, to Joyce Aubrey, only daughter of Mr. Whitfield Raw, of Folkestone.

KETTLEWELL—WILTSHIRE.—On April 25th, 1936, at the Cathedral Church, Birmingham, by the Provost of Birmingham (Bishop Hamilton Baynes), Henry Bernard Davis, only son of Mr. and Mrs. Henry Kettlewell, of Edgbaston, to Hazel Margaret, only daughter of Mr. and Mrs. F. H. C. Wiltshire, of Edgbaston.

SQUARE—FISHER.—On May 13th, 1936, at Southampton, Dr. W. Russell Square to Mrs. Ruby Winifred Fisher.

DEATHS.

COOKE.—On May 4th, 1936, at Woodlands, Wootton, Isle of Wight, Reginald I. Cooke, M.R.C.S., L.R.C.P., aged 60.

EASTWOOD.—On May 5th, 1936, at a nursing home, Arthur Eastwood, M.A., M.D., of 135, St. Julian's Farm Road, West Norwood, aged 68.

FAULL.—On May 12th, 1936, at 7, Elms Road, London, S.W. 4, suddenly, William Collins Faull, F.R.C.S.(Eng.), of Durban, South Africa, aged 47.

HEWETSON.—On May 19th, 1936, John Thomas Hewetson, M.D., F.R.C.S., of Metehley House, Edgbaston, and 8, Calthorpe Road, Edgbaston, aged 63.

MELLY.—On May 5th, 1936, at Addis Ababa, André John Mesnard Melly, M.C., F.R.C.S.E.

SLADE.—On May 3rd, 1936, at a nursing home in London, John Godfrey Slade, M.D. Cantab., aged 59.

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, E.C. 1.

The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, Mr. G. J. WILLIAMS, M.D.E., B.A., at the Hospital.

All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.

St. Bartholomew's Hospital



JOURNAL.

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

Vol. XLIII.—No. 10.]

JULY 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Wed., July	1.—Surgery: Clinical Lecture by Mr. Roberts. Tennis: Final of Inter-Hospitals Cup.
Fri., "	3.—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Sat., "	4.—Cricket Match v. Richmond. Home. Tennis Match v. Staff College. Home.
Sun., "	5.—Tennis Match v. Grasshoppers. Away.
Tues., "	7.—Dr. Gow and Mr. Girling Ball on duty. Cricket Match v. Guy's Hospital. Away. Tennis Match v. Melbury Club. Away.
Fri., "	10.—Dr. Graham and Mr. Roberts on duty.
Sat., "	11.—Cricket Match v. Shoeburyness Garrison. Away. Tennis Match v. Guy's Hospital. Away.
Tues., "	14.—Dr. Geoffrey Evans and Mr. Vick on duty.
Wed., "	15.—Cricket Match v. St. Ann's. Away. Tennis Match v. R.N. College. Home.
Fri., "	17.—Prof. Witts and Prof. Paterson Ross on duty.
Mon., "	20.—Last day for receiving matter for the August issue of the Journal.
Tues., "	21.—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Thurs., "	23.—Cricket Match v. Midhurst. Away.
Fri., "	24.—Dr. Gow and Mr. Girling Ball on duty.
Sat., "	25.—Tennis Match v. Melbury Club. Home.
Tues., "	28.—Dr. Graham and Mr. Roberts on duty.
Wed., "	29.—Cricket Match v. Horsey. Away.
Fri., "	31.—Dr. Geoffrey Evans and Mr. Vick on duty.

EDITORIAL.

THE General Council of Medical Education and Registration have adopted a report of the Curriculum Committee which will involve drastic changes in medical education, the most important of which is the raising of the registration age from 17 to 18. This, of course, implies that no man will be qualified until the age of 23, but it is difficult to understand how, without lengthening the period of clinical instruction, it will materially ameliorate the present position.

It is claimed, of course, that the general education of the student will now continue for one year more than in the past, but the period of training for his ultimate

practical use remains unchanged. He will still spend two years at anatomy and physiology, and three years in clinical studies—and there, to our way of thinking, lies the discrepancy which could so easily be adjusted by abbreviating the curricula of the so-called "preliminary" subjects, and reducing by one-third or even more the knowledge of anatomy and physiology required of the student, whose eventual aim is general practice. For the intending surgeon, the Primary Fellowship would remain as a first step to the Final, and for the physician the Membership Examination would continue to fulfil its present purpose.

The Committee recommend that throughout the second year the student shall receive instruction designed to effect the association between pre-clinical and clinical subjects, and this will include methods of clinical examination, including physical signs, the use of the stethoscope, ophthalmoscope, auriscope and similar instruments, and the examination of normal body fluids. This is a point upon which great emphasis was laid by Lord Horder in his lecture on "Clinical Medicine" published in our columns in January, and it would clear the field for clinical instruction in the wards.

It is recommended, furthermore, that during the three-year period of clinical studies students should reside for a part of the time in hospital, in addition to the time already given to instruction in midwifery—but this would surely be less necessary where a residential college for students is available within or very near the hospital precincts.

It remains, then, a matter of individual opinion whether a year more devoted to general education or clinical instruction would be the more valuable in equipping men to practise general medicine and surgery, and the question of modifying the relative amounts of time devoted to special subjects is one of adjusting medical instruction to the widespread advances in medical science.

We have received the following from Dr. Gow and commend it very strongly to our readers:

ROYAL MEDICAL BENEVOLENT FUND.

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

SIR,—To mark the Centenary Year of the Royal Medical Benevolent Fund, a special appeal is being made this year for two purposes:

1. For new subscribers to raise the annual income of £14,000 to £20,000. This would enable allowance to medical practitioners, who are in financial difficulty due to sickness or infirmity, to be raised from £40 to £52 per annum, and to widows and families left without adequate provision from £26 to £36 per annum.

2. For special donations to create a fund from which grants can be devoted, at the discretion of the Committee, to—

(a) Very urgent and distressing cases.

(b) Towards training the widows and orphan sons and daughters of medical practitioners to enable them to be self-supporting.

So far, in spite of the splendid lead given by Sir Thomas Barlow, the result of the appeal has been disappointing, and I ask Bart.'s men to do their utmost to support this most deserving charity.

Donations may be sent to me; annual subscriptions may be paid by bankers' order or by cheque sent to me or direct to Hon. Treasurer, British Medical Benevolent Fund, 11, Chandos Street, Cavendish Square, W. 1.

I am,

Yours faithfully,

A. E. GOW,

Hon. Local Secretary.

3, Upper Harley Street,
London, N.W. 1;
June 24th, 1936.

We note with great pleasure among the Birthday Honours the posthumous award of the Albert Medal in Gold to John Melly, M.C., F.R.C.S., "in recognition of the conspicuous gallantry which he displayed during the disorders in Addis Ababa in May, 1936, in his efforts to rescue British and other foreign nationals and wounded Abyssinians, in the course of which he received injuries from which he has since died."

We should like to congratulate Viscount Wakefield, C.B.E., on the award of the G.C.V.O., and Henry Harold Scott, M.D., F.R.C.P., on the C.M.G.

We record with great regret the death of Dr. W. H. Hurlley. An obituary notice will appear in our next issue.

Mr. G. C. Knight has been reappointed a Leverhulme Scholar of the Royal College of Surgeons.

As we go to press, the Hospital and medical world has lost a great figure by the tragic death of Mr. H. P. Nelson. An obituary notice will appear in our next issue.

GASTRIC SECRETION IN HEALTH AND DISEASE.

(Concluded from p. 171.)

ANÆMIA

The only two diseases which are directly connected with the gastric secretion are pernicious anæmia, which occurs only in the absence of gastric secretion, more especially the pyloro-duodenal secretion, and peptic ulceration, which occurs only in the presence of gastric secretion. Recent research has shown that hydrochloric acid has nothing to do with pernicious anæmia, and I should not be surprised if the same proved to be true of peptic ulcer. The gastric lesion in pernicious anæmia appears to be incurable, and though the patient may be maintained in good health indefinitely by preparations of liver or stomach, treatment is essentially substitution therapy and not cure. On passing the gastroscope on patients with pernicious anæmia in remission the gastric mucosa is found to be paler and smoother than normal, the rugæ are less evident, and the network of submucosal vessels is visible through the atrophic mucous membrane. The picture is not pathognomonic of pernicious anæmia, being seen in most cases when no acid is secreted after histamine, and in pernicious anæmia we must believe that a similar process has involved the duodenum. In idiopathic hypochromic anæmia apparent achlorhydria is present in 80%, and true achlorhydria in only 50%. The gastric lesion is much less constant than in pernicious anæmia, and the gastroscope reveals every grade of lesion from an atrophic mucosa identical with pernicious anæmia to an active gastritis of a hypertrophic type. My experience of idiopathic hypochromic anæmia now extends over a number of years, and I have been impressed to learn how rarely patients with this disease develop pernicious anæmia, although the gastric lesion seems so similar.

We are so accustomed in medicine to assign a single cause to a disease that it is a little difficult to realize that a clinical entity like idiopathic hypochromic anæmia may have a complex aetiology. There are at least three distinct factors in idiopathic hypochromic anæmia, and the weight of each may vary in different cases. The first is a diet deficient in iron. The second is impaired absorption of iron, owing to achlorhydria or extreme hypochlorhydria. The third is excessive loss of iron in menstruation and pregnancy. There is no doubt that the last factor is far and away the most important, as is shown by the facts that the

complete syndrome of idiopathic hypochromic anæmia, with glossitis, koilonychia, splenomegaly and microcytosis, rarely if ever occurs in the male, and that in the female the disease spontaneously disappears after the menopause. We are therefore not justified in regarding idiopathic hypochromic anæmia as a disease of the stomach, but must regard it as a disease of the reproductive epoch.

GASTRITIS.

In the last few years, as a result of the opportunity of examining portions of the fresh stomach removed by the surgeon, the introduction of methods of preserving the stomach from degeneration after death and the perfection of the gastroscope, much interest has been taken in the subject of gastritis. Hence gastritis, which was at one time an unorthodox diagnosis, has become rather too fashionable. People seem to be in danger of forgetting that gastritis is usually a silent lesion, and that whatever the gastroscope or the microscope may reveal, the great mass of dyspepsia is due to bad habits and disturbed emotions, and is to be treated by considering the individual as a whole and not by concentrating on the gastric mucosa. I shall always remember a man who was admitted to Guy's Hospital after trying to commit suicide by drinking lysol. His acute symptoms subsided within a few days, but three weeks later he vomited up most of the lining of his stomach. In that intermediate fortnight he had had no pain whatsoever, and in fact he told me that it was one of the happiest periods of his life—which had certainly been an unhappy one. He ultimately developed great contraction of the stomach, from which I think he died about a year later. There is no justification for regarding patients with low acidity as suffering from anacid gastritis, or patients with hyperchlorhydria as suffering from pre-ulcerous gastritis, or for treating them by diet and lavage, unless there is strong collateral evidence, for I have already pointed out that these are normal variations in the gastric secretion.

With the skilled assistance of Mr. H. W. Rodgers we have been able to inspect a large number of stomachs through the gastroscope, and it is my impression that a visible gastritis is less frequent in this country than on the Continent—perhaps because of differences in diet. Dr. H. A. Magnus has at the same time been studying the histology of material obtained at operation and autopsy, and he has found that a pyloric gastritis, often undetectable by the gastroscope, is very common, but that inflammation of the body of the stomach is unusual. It is very desirable that we should correlate the macroscopic and microscopic appearance of the

stomach with the symptoms and with the gastric secretion. Stomachs obtained at operation or seen through the gastroscope are not a fair sample of the population, and the ideal thing would be to secure that in as many as possible of the patients who come to autopsy the notes record the presence or absence of digestive symptoms and the results of fractional gastric analysis. I often think that if ward clerks realized how valuable their notes may be for investigations of this kind, they would make them more complete than they do now.

For a simple account of gastritis I refer you to Knud Faber's lectures on "Gastritis and its Consequences", which were delivered at Guy's Hospital in 1934 at the invitation of the University of London. He divides chronic gastritis into a diffuse pangastritis which leads to atrophy and achlorhydria, and a juxta-pyloric gastro-duodenitis, which tends to erosion and ulceration, and is more likely to be accompanied by increase than decrease in the gastric secretion. Thus the pyloro-duodenal area, which is so different in function from the body of the stomach, reacts separately in disease. We probably make too much of ingested irritants as a cause of gastritis, for the stomach was designed to withstand considerable external insult. Few men abuse their stomachs more shamefully than Alexis St. Martin, but a temperate way of living soon restored his mucous membrane to normal. The stomach is much more susceptible to influences from within the organism, and it is the hematogenous toxins of the exanthemata, of acute rheumatism and influenza, and possibly of focal sepsis, which sow the seeds of chronic gastritis. Although I have indicated my own belief that gastritis is usually a silent lesion, it is of immense clinical importance in view of its possible relationship to that common and fatal disease, carcinoma of the stomach. It is largely because it may be a pre-cancerous lesion that we are making such efforts to simplify the diagnosis of gastritis, and that we are following up large series of patients with the diffuse pan-gastritis of idiopathic hypochromic and pernicious anæmia.

PEPTIC ULCER.

I have already demonstrated that the results of test-meals in large series of cases of peptic ulcer so closely overlap the normal, that it is difficult to explain the disease as due to a variation in one of the known constituents of the gastric juice, unless we are to lay greater stress than seems justified on the continuous nature of gastric secretion in that disease. We are in very much the same dilemma as we were in regard to pernicious anæmia before Castle and Meulengracht so

changed our outlook, and I do not think we shall solve the problem of peptic ulcer without some new knowledge of the same type. Peptic ulcer occurs only in situations where relatively undiluted gastric secretion is present, and for all practical purposes true achlorhydria excludes the diagnosis of simple peptic ulcer. Peptic ulcers occur in the stomach and first part of the duodenum; rarely in the oesophagus and small intestine when heterotopic gastric fundus mucosa occurs in these situations; in the jejunum and the ileum when the gastric juice is diverted there by anastomotic operations. It is remarkable how short is what one might call the striking distance of the juice, inasmuch as duodenal and jejunal ulcers occur only within a few inches of the stomach. The power of the juice to produce ulcers is lost before the acidity can have been greatly reduced. Indeed, as I have already indicated, I am very doubtful whether the acid is the principle in the juice that is responsible for the formation of ulcers. It is true that ulcers occur only in the presence of gastric juice, and that the pain of gastro-duodenal ulceration is relieved dramatically and constantly by strong alkalis such as sodium bicarbonate and magnesium oxide. On the other hand, fractional test meals show that the acidity of ulcer patients who have had a gastro-enterostomy is almost as high as that of the general population, and large gastric ulcers heal as a result of duodenal feeding or jejunostomy—procedures which leave the juice unneutralized. I believe that healing in all these procedures is the result of rest. X-rays and gastroscopy show that peristalsis diminishes in the pyloric antrum after gastro-enterostomy, and the musculature may become atrophic.

Ideas of this kind, plus the realization of the difficulties and dangers of neutralizing the gastric acidity, are probably responsible for the decline in favour of the treatment of peptic ulcer by massive doses of alkalis. Dr. W. Oakley has shown that we cannot safely give more than 20 gm of sodium bicarbonate or equivalent alkali a day. Theoretically this should neutralize 9 gm. of hydrochloric acid or 3 litres of juice. Ten 5-oz. feeds of milk neutralize another 1.5 litres, so that altogether our alkaline diet should neutralize 4.5 litres of juice. How is it that we do not succeed in maintaining neutrality, even allowing a generous margin over the normal 3 litres of juice? One reason is that secretion persists during sleep, when it is impossible to neutralize it, except by continuous drip feeding through a nasal tube—a method which has been used in America, but which reduces the medical treatment of ulcer to an absurdity. In the waking hours milk and alkalis are quickly evacuated by the stomach, and three-quarters of an hour after a milk feed, free hydrochloric acid may

reappear in high concentration. The dose of alkali required to neutralize a given volume of gastric juice is always larger than the calculated chemical equivalent, owing to the reversible nature of the reaction. Moreover, the stomach seems to try and counteract the neutralizing action of alkalis by secreting more gastric juice, so that in the end the acidity may be higher with alkalis than without.

Various efforts have been made to overcome these difficulties. Hurst gives milky feeds hourly and alkali midway between feeds, but Emery suggests that it is better to make the feeds from a dried milk with which alkali has been incorporated. Others have suggested the use of slowly-acting neutralizing or adsorbent agents such as kaolin, aluminium hydroxide and magnesium trisilicate. I do not think the treatment of gastro-duodenal ulceration can advance far along these lines, and at present on the Medical Unit we do not prescribe alkalis unless pain is present, and never after hæmorrhage or in pyloric stenosis. Rest to the mind and the body is an essential, but it is rarely possible to keep patients in bed until their ulcers are healed, and if there is no pain and no blood in the stools, I like to give a diet of sufficient caloric content for the patient to be up part of the day or to go to a convalescent home. It has been said that peptic ulcers occur most commonly in those who drive vehicles, those who drive others, and those who drive themselves, and drugs of the barbiturate group help to relax tension. Belladonna and atropine, especially in the homœopathic dosage commonly employed, are of no value in easing spasm or diminishing secretion. The aims in composing a diet are to give foods which are non-irritating, and to ensure that the stomach is not empty or the ulcer exposed to undiluted gastric juice and the pangs of hunger. Milk forms the basis of the diet, and in order that it should not be too rapidly evacuated it should not be citrated, and feeds should be thickened with gruel or *puvés* or given semi-solid as custards, blancmanges and junkets. Salt is allowed to taste but not to excess. It is just as grave a reflection on treatment for a patient with ulcer to feel hungry as for a patient with fever to have a dry tongue and feel thirsty, and to prevent this the diet should be adequate, and 5-oz. feeds may be given hourly. Cod liver oil before meals three times a day exercises the inhibitory action of fat on gastric secretion, and supplies vitamins A and D; other oils are used if it is not tolerated. Orange and tomato juice supply vitamin C, and marmite (given in milk), vitamin B. If there is anaemia, 30 gr. of iron and ammonium citrate are given thrice daily. Foci of infection are removed, but as imperfect mastication is just as harmful as

septic absorption, every effort is made to preserve serviceable teeth.

LOSS OF GASTRIC JUICE.

In severe cases of gastro-duodenal ulceration systemic changes may occur, which have an immense influence on the vitality and resistance of the patient, and therefore on the risks of operation. It is only severe cases which require operation, and apart from perforation, no case of ulcer should undergo operation without a preliminary course of observation and treatment in a medical ward. It may be much more helpful for a patient to go to a convalescent home before operation than afterwards, for a man needs to be made fit to stand a big gastro-intestinal operation, and unless perforation or gross obstruction has occurred, there is no urgency. A considerable proportion of cases of peptic ulcer in the hospital classes ultimately require operation. If operation is restricted to those cases in which it is really essential, major procedures are required. The only way to reduce the mortality of these procedures is for physician and surgeon to co-operate, and to regard operation as an incident, albeit an important incident, in a disease process of unpredictable duration. With such co-operation the mortality of gastric surgery would be reduced as dramatically as that of thyroid surgery.

The bodily changes to which I have referred are brought about by malnutrition and avitaminosis; by the vomiting of gastric juice; by hæmorrhage; and by the therapeutic use of alkalis. Malnutrition and avitaminosis lead to wasting and loss of resistance to infection. I have already indicated that a single day's secretion of gastric juice constitutes a significant proportion of the total fluid and chlorine in the body. Repeated vomiting therefore leads to dehydration, to loss of mineral salts from the body, and to alkalosis owing to the unbalanced loss of acid. Hæmorrhage leads to anaemia and dehydration. Alkaline treatment leads to alkalosis. The main effects of these combined onslaughts on the body are wasting, dehydration, alkalosis and loss of mineral reserves, and for reasons not well understood these effects lead to uraemia and death. There is no short cut to their repair, and a patient who has become cachectic as a result of peptic ulceration needs many days of careful treatment before he is fit for operation. Mr. R. T. Payne, in a recent paper at the Paget Club, showed that the mortality of gastrectomy at this Hospital was high, and that it had not diminished in recent years. Deaths were not due to technical errors, but to pneumonia and lack of healing power in the tissues, and I think that these complications would be greatly diminished by more prolonged pre-operative treatment.

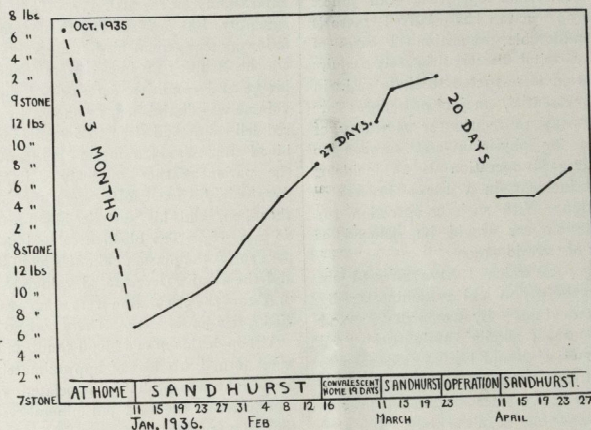
The following case illustrates the lack of resistance in some of these patients:

A man of 52 who had had symptoms of duodenal ulcer since 1929 developed pyloric stenosis at the beginning of 1936. He had suffered from copious and projectile vomiting for two months before admission to the Medical Unit, and had been performing gastric lavage for one month. His general condition appeared satisfactory, blood-pressure 105/110, blood-count normal, blood urea 47 mgrm per cent., alkali reserve 62 vols. carbon dioxide per cent., plasma chlorides 577 mgrm. per cent. While, however, his best weight was 10 st. 10 lb., his present weight was only 8 st. 2 lb. After further gastric lavage he was transferred to the Surgical Unit for gastro-enterostomy on the fifth day. The operation went very smoothly, but on the fourth day after the operation following an aperient his bowels were opened four times. On the fifth day his bowels were opened nine times, and his general condition deteriorated rapidly. The blood volume was diminished, as shown by the fact that the red cell-count had risen to 6.8 millions per c.mm. The blood urea was 320 mgrm. per cent. Next morning the patient rather suddenly collapsed and became dyspnoeic, his extremities were blue and cold, his face shrunken, and his systolic blood-pressure was below 60 mm. Hg. The blood urea had risen to 440 mgrm. per cent.; the plasma chlorides had fallen to 483 mgrm. and the alkali reserve to 28 volumes per cent. Efforts to restore the circulation were of no avail and the patient died a few hours later. There was no autopsy.

Although this man's blood count and blood chemistry were normal, his loss of approximately 25 per cent. of his weight was probably associated with such a great diminution in the fluid and mineral reserves of the body that he was unable to cope with a moderate diarrhoea, and quickly succumbed to uraemia and acidosis. In the following case perseverance with pre-operative treatment in the face of considerable difficulties was probably responsible for the success of the operation when it was finally performed.

Geo. F., æt. 54, had been under treatment for a gastric ulcer for three years. As the ulcer grew larger on out-patient treatment, he was admitted to Rahere Ward in September, 1935, and had a month's treatment with careful diet and histidine. The ulcer crater appeared smaller at the end of this time, but he soon broke down on returning home. In November his pain became very severe, changing to attacks of severe gripping colic that doubled him up. He had much vomiting, and finally, at the beginning of December, hæmatemesis and melæna which brought him into Sandhurst Ward. His pain was severe enough to suggest a leaking perforation, but there were so signs

of this. He was in miserable physical condition, the hæmoglobin was only 40 per cent., blood urea 80 mgrm. per cent., alkali reserve 76 vols. per cent. Following our current practice we gave a fairly full fluid diet right away, relieving his pain at first with morphia and nembutal. Later it was possible to give alkalis in sufficient dosage to relieve the pain, but avoid the alkalosis to which he was prone. X-ray examination, which was not practicable till the middle of January, showed an enormous gastric ulcer, but in view of his poor physical state and the presence of chronic bronchitis, Prof. Ross and I thought we should postpone operation if it was at all feasible. By the third week of February he had improved sufficiently to go to a



convalescent home at Bognor for a month. When he came back in March the change in his general condition and the diminution in the crater of the ulcer were equally remarkable. Under local anaesthesia Prof. Ross successfully performed a partial gastrectomy—the ulcer was now about 1 cm. in diameter—and apart from a little bronchitis after the operation convalescence was uninterrupted. In the figure I have charted his fluctuations in weight during this period, to demonstrate that both relapse of the ulcer and operation are accompanied by loss of weight, and to suggest that operation should not be undertaken until the patient is on the upgrade.

In the assessment of the patient's condition the general appearance is of considerable value, but more precise data are provided by the hæmoglobin content of the blood, the blood chemistry and the loss of weight. Of the chemical changes in the blood the most constant

is an increase in the blood urea; sodium and chlorine may be diminished and the alkali reserve increased. I attach great importance to loss of weight, as this is the best indication of loss of fluid, minerals and nutritional reserves. It is gauged by comparing the patient's best weight with his present weight. A loss of 25 per cent. in the body-weight usually indicates a considerable cachexia and contra-indicates operation. The hæmoglobin level should be raised above 85 per cent. before operation is undertaken, but it is obvious that the systemic changes I have described cannot be remedied by the transfusion of blood alone, even the massive transfusions which are now coming into fashion. To restore the fluid and mineral reserves of the body is a

difficult task, and whenever possible it should be done by a course of dietetic treatment, whereby the organism can select the materials it requires. Infusions of saline may help, but are rarely sufficient in themselves to repair in a short time the complicated humoral changes. Alkalosis may be corrected by the oral administration of acid sodium phosphate, 30 gr. four-hourly. Ammonium chloride should not be used, as it increases the dehydration, and in any event the blood must be tested at frequent intervals to avoid overdosage. Of course patients should not be allowed to get as ill as in the following case, which illustrates the difficulties in trying to restore the internal milieu to normal:

A man of 60 had had dyspepsia suggestive of duodenal ulcer since 1932. X-ray examination in 1933 had not revealed an ulcer, but he was treated by diet and an alkaline powder, which was prescribed in a dosage of 60 gr. *t.d.s.* Three weeks before admission he began

to suffer from attacks of giddiness, and ten days later nausea, hiccough, vomiting and constipation set in. He ceased to take alkalis, but his condition deteriorated, his output of urine diminished and he grew drowsy and stuporose. On admission to Sandhurst Ward in January, 1935, he was obviously uræmic and the blood urea was 200 mgrm. per cent. It was decided that this was a gastric and not a renal uræmia, as the urine contained only an inconstant trace of albumen and no casts, the blood-pressure was only 150/82, and the alkali reserve was 90 vols. carbon dioxide per cent. He was treated with fluids, acid sodium phosphate, and later ammonium chloride, the urine volume increased to a satisfactory level, and his mentality cleared. Unfortunately we pushed the ammonium chloride too far, so that he developed acidosis and relapsed into coma and died. The last examination of the alkali reserve showed 40 vols. per cent., but as we did not hear the result till some hours later we probably depressed it much lower than this. Efforts to change the alkali reserve in dehydrated patients are fraught with danger and need very careful control. Autopsy showed an ulcer which had narrowed the duodenum so much that it admitted only the tip of the little finger, and chronic focal nephritis.

In another year I hope to discuss our observations on hæmatemesis and melæna, in which humoral changes are present in an aggravated form. Enough has been said to prove that in peptic ulceration we must not limit our gaze too closely to the stomach and duodenum, for the loss or neutralization of the gastric secretion produces widespread changes in the organism, and these secondary phenomena may be a greater menace to life than the actual ulcer.

L. J. WITTS.

ADVICE TO A DRESSER.

"Ye have read, ye have heard, ye have thought," he said, "and the tale is yet to run:
"By the worth of the body that once we had, give answer—
what ha' ye done?"—KILRING.

GOOD advice is like a bottle of medicine; it may never be taken, but if it should be it will probably do no harm, and it may occasionally do good. These remarks are addressed to every dresser in the knowledge that they may be read by a few and will be of real value to still fewer; but when these conditions are understood and accepted by both parties, no blame can be imputed either to the writer or to the majority of his audience.

YOUR FIRST APPOINTMENT.

Surgery is a craft, and the way to learn it is through apprenticeship to a master, by watching him at the bedside and in the operation theatre and then going away and trying to do likewise. From him you must learn how to take a history and how to elicit physical signs, but remember that it is only by practising these methods over and over again that you will train your own powers of observation. This is what one of our most renowned clinical teachers meant when he said to some *habitués* of the back row, "Feel it, gentlemen, feel it; you cannot learn by smell alone!"

Errors of diagnosis are attributable, not to ignorance, but to imperfect clinical examination. By the time a man becomes qualified there can be few diseases of which he has never heard, and if he makes sure of his physical signs he is almost certain to be able to interpret them correctly. He makes mistakes either because he has got the signs wrong, or more commonly because he has never thought of looking for them. The thorough examination of any part of the body must be orderly so that you may know when you have completed it, and you should try from the very beginning to be methodical in your clinical work. Your efforts in this direction will be greatly aided by the Little Grey Book.

Next you must learn to write a concise description of what you have observed. When Bacon wrote, "Reading maketh a full man; conference a ready man; and writing an exact man", he laid stress upon the importance of writing as an aid to memory. But note-taking has the added virtue that it makes you more accurate in your clinical examinations, for it is only when you try to write down the details of a history or of certain physical signs that you realize how many features can be missed at the bedside. You should try to make your notes brief yet comprehensive, using simple expressions and avoiding terms which imply a diagnosis and make you jump to an unwarranted conclusion. Always bear in mind the value of recording the absence as well as the presence of relevant symptoms and important signs.

You are certain to find much of interest in the operation theatre, but the cases which are commonly considered the most exciting are not necessarily the most instructive. You cannot see too many of the lesser operations of surgery, for you may be expected to perform them yourself in general practice, and the same applies to emergency operations. The profit to be derived from watching an artist or a craftsman at work depends upon knowing what to look for, and, in watching a surgeon, you should observe how closely his methods conform to the fundamental principles of

good technique—the maintenance of asepsis, gentleness in handling the tissues, and the effective control of hemorrhage.

From what has already been said you will have gathered that you will learn more in your early days from your patients than from your books, for the best test of a man's knowledge of surgery will always be what he has done or seen, rather than what he has heard or thought or read. But pathology is a subject you must add to anatomy and physiology in order to understand the science of surgery, and I would advise you to read *Surgical Pathology* by Bowlby and Andrews and *Tumours* by Bland-Sutton. Men may tell you that these books are out of date, but heed them not. They maintain their perennial freshness, and are a perpetual delight to the reader because they are models of pure English, and whereas the former is of special value to Bart.'s men because it is written about the specimens in our own Museum, the latter is important because it shows how much can be learnt about disease in man by considering the fowls of the air and the beasts of the field.

THE OUT-PATIENT DEPARTMENT.

As a ward dresser you have the opportunity of making a complete study of a number of cases, but in the Out-Patient Department you can make a less complete study of a much larger number. The examination of your patients is incomplete in that you are obliged to concentrate your attention particularly upon the local diseases of which they complain, and the time at your disposal is insufficient for detailed inquiry into all the systems of the body, and for the pathological investigations which are carried out in the wards. But the examination of the local lesion must be performed with the utmost care, and the practice and experience gained by the examination of many patients should so improve your clinical faculties as to ensure that accuracy shall not be sacrificed to speed.

Whereas in the earlier period of your training you should resist the temptation to make a diagnosis until you can arrive at your conclusion by a deliberate process of deduction from the observed facts, you should now train yourself to diagnose at sight. This method is of course more risky, and its value depends on the subsequent inquiry to prove or disprove the correctness of your first impressions; but provided you take the trouble to discover your mistakes, you will learn more by making them than by reserving judgment in order to avoid them.

It is a mistake to neglect cases in the Out-Patient Department which at first sight appear trivial. You must remember that in practice the majority of your

patients will suffer from minor maladies which seldom reach the wards of a teaching hospital, and it is at this stage of your career that you must make yourself familiar with the manifestations and the treatment of these common complaints.

Your cases in the Out-Patient Department should also stimulate you to read one of the standard systems of surgery. The benefit reaped from reading a surgery book right through is not commensurate with the labour entailed, but to refer to a good text-book for further information about cases you have seen will clarify obscurities and amplify your knowledge, and will help to fix important facts in your memory. You will probably find that writing down a short *résumé* of what you have been taught and what you have read will help you to co-ordinate and remember the information you have collected from various sources.

YOUR LAST APPOINTMENT.

It is a popular fallacy that a man who is doing his "second-time" dressership just prior to the final examination in surgery should not take cases in the wards. Some consider it beneath their dignity to write notes and do dressings, while others regard it as a waste of time. Wisdom and humility always go hand in hand, and the truth is that when you are nearly qualified you can learn more than ever before by studying your patients, though from a rather different point of view. In your earlier days you must necessarily concentrate your attention upon methods of examination, for accurate diagnosis must precede rational treatment. But you must remember that although to you it is a matter of the first importance to give the patient's disease a name, he is much more interested in what you are going to do for him and whether he is going to lose his job as the result of it, while his relations and friends will want to know whether the disease is likely to shorten his life. It is during the latter part of your out-patient work and while you are doing this final clinical appointment that you must devote special attention to these details of therapeutics and prognosis, and when you have finished your examination of a patient you must make a habit of asking yourself what you are going to do for him.

Study therefore your patients' temperature charts and their blue-boards, and attend the Follow-up Department. You must become familiar with the odd things a chart may show after an operation even when there is no cause for alarm, and you must learn to recognize its danger-signals and know how to search the patient for the source of the trouble. The blue-board will stimulate your interest in your patient's food—a matter about which you will be expected to

give detailed and authoritative advice in the first house you enter as the doctor; and from it you must also learn the few drugs which are necessary to prepare patients for operation and to alleviate their suffering afterwards. In the Follow-up Department you will learn the limitations of modern surgery—a matter which you can discover in no other way, and which you must know if you are to advise your future patients whether to submit to operation or to "dree their weird".

Yet I know that even if I could speak with all the tongues of men and angels there would still be many unconvinced of the folly of reading in the library while the wards and out-patient departments are open. There is plenty of time for books when the wards are closed, but even then the Museum is a more profitable place to work in. You should persist in the habit of reading up your cases in text-books of surgery and pathology, but I want you to realize how valuable the *Museum Catalogue* may be in linking up clinical pictures with pathological processes, thus clarifying your ideas of disease as a whole.

Let me assure you that, in spite of what you might be led to assume from its popularity, axillary absorption is a very slow process, and a man must walk about with a book under his arm for many weary months before he can convince even the examiners that he knows the requisite minimum about clinical surgery. Kipling taught us a lesson which you would do well to lay to heart when he told how "the God that he took from a printed book" failed to get Tomlinson into either Heaven or Hell. So shall reading without clinical experience fail to help you either in your examinations, or in the more serious problems which await you in practice. After your studentship is over you will come to rely not on what you have heard or thought, but upon what you have seen with your own eyes and done with your own hands, and this experience can be gained only from continual contact with sick men and women.

J. PATERSON ROSS.

PITFALLS IN THE DIAGNOSIS OF TOXIC GOITRE.

THE incomplete forms of toxic goitre rival almost any disease in difficulty of diagnosis; their signs and symptoms may exhibit a striking similarity to those of other clinical entities. This may often not be recognized; consequently partial thyroidectomy may be recommended in cases in which, on closer observation, it is very doubtful whether the

diagnosis of toxic goitre is correct. The commonest condition to be confused with mild toxic goitre is the so-called neuro-circulatory asthenia, or cardio-vascular neurosis, the underlying pathology of which is considered to be a derangement of the function of the autonomic nervous system—the "autonomic imbalance" of Kessel and Hyman (1). In fact these authors have gone so far as to say that the only difference between toxic goitre and "autonomic imbalance" is the absence of a raised basal metabolic rate in the latter. It is proposed in this paper to discuss various points which may be of assistance in differentiating between the two diseases, but it must be admitted that in some cases this is not always possible. Reference will also be made to several other conditions which may occasionally be mistaken for toxic goitre, and to one or two conditions which may be mimicked by atypical forms of toxic goitre.

Neuro-circulatory asthenia and neurasthenia. The writer has recently studied the symptomatology of all those cases admitted to the wards of the Medical Unit during the last five years, amounting to 25 in number, which presented features almost indistinguishable from those of mild toxic goitre, and which were diagnosed as neuro-circulatory asthenia, cardio-vascular neurosis or neurasthenia. At the same time analysis was made of the signs and symptoms of an equal number of the cases which presented similar features to the former group and in which the diagnosis of toxic goitre was made.

The signs and symptoms which occurred in both groups consisted of nervousness, a change in disposition, periods of faintness and giddiness, headaches, sweating, hot flushes, a feeling of warmth, dyspnoea on exertion, palpitations, præcordial pain, tiredness, irregular or scanty menstrual periods or amenorrhœa, loss of weight, enlargement of the thyroid, tremor and tachycardia. The symptoms which were commonest in the two groups, occurring in more than half of the cases, were nervousness, dyspnoea, palpitations, tiredness, enlargement of the thyroid and tachycardia, whereas præcordial pain and giddiness were rare occurrences. Changes in disposition, faintness, sweating, hot flushes and a feeling of warmth occurred about equally in the two groups. Headache was far more frequent in neuro-circulatory asthenia and neurasthenia than in toxic goitre, being present in 17 of the 25 cases, compared with 5 of the 25 cases of toxic goitre. It was frontal, vertical, occipital or temporal and was usually throbbing in character. Menstrual disturbances occurred in about half of the cases of toxic goitre and in only one-quarter of the cases of neuro-circulatory asthenia. The more important signs and symptoms which may or may not

have a bearing on diagnosis will be briefly discussed individually.

Last of weight.—In the early cases of toxic goitre this symptom may not be present, but in the analysis of the cases under discussion it was found to be far more common in toxic goitre than in neuro-circulatory asthenia or neurasthenia. It occurred in 15 of the patients with toxic goitre and in only 6 of those diagnosed as neuro-circulatory asthenia or neurasthenia. The loss of weight in toxic goitre occurred in spite of the appetite being good, whereas in neuro-circulatory asthenia this symptom was frequently associated with a poor appetite and may have been partly due to this cause.

Exophthalmos.—The presence of exophthalmos is strong evidence in favour of the diagnosis of toxic goitre, but it must be borne in mind that some patients may have normally prominent eyes and inquiry should be made concerning this. Such prominence of the eyes occurred in two of the cases diagnosed as neuro-circulatory asthenia. However, in mild toxic goitre exophthalmos is often absent; it was evident in only 11 of the 25 cases diagnosed as such. Careful observation may discover a slight stare or a glistening of the sclera which is unusual in normal persons, and the patient should be asked whether her friends have remarked upon such a condition. The stare in mild cases of toxic goitre is important and should be carefully considered. If it be established, it may be a deciding factor in favour of the diagnosis of toxic goitre. It was present in 8 of the cases of toxic goitre in this series.

Goitre.—Simple enlargement of the thyroid gland may occur in a patient with neuro-circulatory asthenia or neurasthenia as in any other person. It cannot be too strongly emphasized that the presence of an enlarged thyroid does not necessarily clinch the diagnosis of toxic goitre in patients who present symptoms suggestive of toxicity. In the present series enlargement of the thyroid gland was evident in 21 cases of toxic goitre, and in 16 of those diagnosed as cardio-vascular neurosis, neuro-circulatory asthenia or neurasthenia. If a history can be obtained that the thyroid enlarged at about the same time as the other symptoms appeared, it is suggestive that these may be due to toxic goitre. On the other hand, patients may have thyroid intoxication with no enlargement of the thyroid, a possible explanation of this being that a high iodine intake with the food and easy absorption from the gut enables the thyroid to secrete increased amounts of thyroid hormone without the necessity of enlarging in the process. If thyrotropic hormone of the anterior pituitary be injected into guinea-pigs the thyroid will become enlarged and hyperplastic, and the basal metabolic rate will rise in consequence of increased secretion of thyroid hormone.

If, however, iodine be given at the same time as thyrotropic hormone, hyperplasia and enlargement of the thyroid will not take place, but the basal metabolic rate will still rise, in some cases even higher with than without iodine.

Tremor.—Tremor of the fingers of the outstretched hands may be present in both diseases, but it was twice as frequent in toxic goitre (14 cases) as in neuro-circulatory asthenia (7 cases). In toxic goitre the tremor is characteristically fine, whereas in neuro-circulatory asthenia it is usually coarse.

Tachycardia.—Little can be said concerning this sign in diagnosis. With the patient at rest the pulse-rate during sleep on the whole approaches the normal level in neuro-circulatory asthenia, whereas in toxic goitre it continues to be raised; this, however, may not always be the case. In both conditions the pulse-rate falls to a lower level after rest in bed and as the patient becomes used to ward conditions. The character of the pulse in toxic goitre is typically bounding and of good volume, whereas in neuro-circulatory asthenia the volume may be poor. The cardiac impulse was described as forcible or overacting in 14 cases of toxic goitre, but in only 3 cases of neuro-circulatory asthenia.

Previous history. With regard to the previous history of these patients, both conditions may arise following a period of mental stress, anxiety or overwork. Perhaps the patient with neuro-circulatory asthenia is more likely to have been "always delicate" or to have had "nervous breakdowns" in the past than the patient with toxic goitre, but as a similar history may be obtained in toxic goitre, it is of little help in diagnosis.

An analysis of the two groups of patients leads to the conclusion that in the differentiation of cases which present the difficulties which have been described, loss of weight accompanied by a good appetite, a slight stare or glistening of the sclera, a tachycardia with a high pulse-rate during sleep and a forcible cardiac impulse, a fine tremor and the simultaneous appearance of thyroid enlargement with the other symptoms are points in favour of the diagnosis of toxic goitre. Absence of exophthalmos and of thyroid enlargement does not contra-indicate such a diagnosis, and the presence of thyroid enlargement does not necessarily support it.

Basal metabolic rate.—The basal metabolic rate is not always an index of the degree of thyrotoxicity, and for this reason no reference has yet been made to its value in the diagnosis of the conditions under discussion. The basal metabolic rate in normal persons varies from -10 to $+10\%$ —a normal "highly strung" person may have a basal rate as high as $+15$ or $+20\%$. The occurrence of toxic goitre in a person with a normally high metabolism will cause an increase in basal

rate to a figure above the normal limit, but a person with a normally low basal rate and with an equal degree of thyrotoxicity will show a figure within normal limits. For this reason the basal metabolic rate may be of little value in differentiating toxic goitre from neuro-circulatory asthenia, for the readings in both conditions may be at a high normal level. Further, a patient with neuro-circulatory asthenia may be so nervous when the test is performed that a figure considerably above the normal limit is obtained. A considerable amount of discretion, therefore, must be used in interpreting the basal metabolic rate. A low figure, *i. e.* one below or just above zero, is in favour of the case not being one of toxic goitre.

It is probable that toxic goitre and neuro-circulatory asthenia are closely related, and in borderline cases it may be impossible to come to a definite decision; in such cases conservative measures of treatment should always be undertaken and the patient kept under observation. A few months later the evidence in favour of a diagnosis of toxic goitre may be less indefinite.

The following summaries of case-reports briefly illustrate some of the points under discussion:

(1) Female, *æt.* 21. Family nervous and "highly strung"; at puberty patient had a goitre which disappeared when she was aged 18. About two years before admission she became miserable and nervous, with palpitations, dyspnoea on exertion, frontal headaches, occasional præcordial pain, irregular menstrual periods, some loss of weight, anorexia and dysphagia. On examination, no exophthalmos; slight tremor of fingers; thyroid moderately enlarged; pulse-rate 100-110, settling to 80-90 on rest in bed; basal metabolic rate $+53\%$ (accuracy of reading doubtful). Diagnosis: Neurasthenia.

(2) Female, *æt.* 35. In the past had occasional "breakdowns"; work monotonous. Six months' history of nervousness, fainting attacks, palpitations, sweating, hot flushes, a feeling of warmth, menses slightly irregular; no loss of weight; no exophthalmos; coarse tremor; no thyroid enlargement; pulse-rate 90-100; basal metabolic rate $+3\%$. Diagnosis: Neurasthenia. The diagnosis in this case depended on the basal metabolic rate.

(3) Female, *æt.* 29. Never robust; in the past many "nervous breakdowns"; much quarrelling at home. For the last 15 years patient has been excitable, emotional, introspective; palpitations; headaches; no loss of weight; menses regular; ? slight exophthalmos; no tremor; very slight thyroid enlargement; pulse-rate 80-100; basal metabolic rate $+14\%$. Diagnosis: Neurasthenia. A border-line case.

(4) Female, *æt.* 24. One year's history of fainting

attacks, which were her chief complaint; attacks began with stabbing pain over the præcordium, followed by numbness of the legs, a tight sensation over the face, giddiness and unconsciousness, which might last for a quarter to two hours; patient had four such attacks. Dyspnoea on exertion; occasional præcordial pain while sitting down; palpitations at night; appetite varied, epigastric fullness after food, flatulence and heart-burn; twitching of arms and legs while in bed; sweating and hot flushes; slight loss of weight. On examination no exophthalmos; no tremors; skin warm and moist; pulse-rate 80; thyroid slightly enlarged. The diagnosis of neuro-circulatory asthenia was made. Six months later patient began to tire easily; sweating marked; marked tachycardia on slight exertion; slight stare, but no definite exophthalmos; slight tremor, thyroid slightly enlarged; pulse-rate 100; basal metabolic rate not estimated. Diagnosis: Toxic goitre.

(5) Female, *æt.* 52. Six months' history of nervousness, dyspnoea on exertion, palpitations, occasional headaches, some loss of weight; appetite good; menopause four years previously; no exophthalmos; slight tremor; slight thyroid enlargement; pulse-rate 80-120, during sleep 80-100; basal metabolic rate $+58\%$. Diagnosis: Toxic goitre.

(6) Female, *æt.* 51. Always "delicate"; six years' history of depression, nervousness, dyspnoea on exertion, palpitations, tiredness, loss of weight; appetite good; frontal headaches; præcordial pain occasionally; no exophthalmos; fine tremor; thyroid enlarged; pulse-rate 90-100, during sleep 90; cardiac impulse forcible; basal metabolic rate $+38\%$. Diagnosis: Toxic goitre.

(7) Male, *æt.* 31. One year previously had "influenza" followed by weakness, tiredness and lack of energy; no dyspnoea; occasional palpitations; no sweating, no hot flushes; appetite good, but during the last four months lost 2 st. in weight; no nervousness; exophthalmos; skin warm and moist; no tremor; thyroid diffusely enlarged; pulse-rate 80-120, during sleep 80-90; basal metabolic rate $+21\%$. Diagnosis: Toxic goitre.

Of the various conditions which may be confused with toxic goitre, the menopause, arterio-sclerosis and pulmonary tuberculosis should be mentioned, and in a few cases toxic goitre may bear a close resemblance to Addison's disease.

Menopause.—A woman, *æt.* 46, had a ten months' history of a tight feeling in the neck, tiredness and palpitations; no nervousness, no sweating, no hot flushes, but a feeling of warmth; frequent frontal and vertical headaches; the menses were becoming irregular; no loss of weight. On examination, no exophthalmos;

pulsation at the root of the neck, but no thyroid enlargement; skin warm and moist; fine tremor of the fingers; pulse-rate 90-120, during sleep 90. At first the diagnosis in this case was toxic goitre, but later when the basal metabolic rate was found to be -2 and -1% on two occasions it was considered that her signs and symptoms were manifestations of the menopause.

Arterio-sclerosis.—The symptoms of the following case, at first thought to be due to toxic goitre, were ultimately considered to be the result of arteriosclerosis. It is well known that arteriosclerosis and hypertension may produce a clinical picture similar to neurasthenia, and on this account, especially if associated with thyroid enlargement, may be mistaken for toxic goitre.

The patient was a female, *æt.* 51, with one year's history of palpitations, dyspnoea on exertion, hot flushes, occasional headaches, dyspepsia; no nervousness, no loss of weight. On examination: Anxious type; no exophthalmos; slight enlargement of the thyroid; pulse-rate 80-90; cardiac impulse forcible; blood-pressure 200 systolic, 112 diastolic; basal metabolic rate in a surgical ward $+31\%$, but later after the patient was transferred to a medical ward -15% .

Pulmonary tuberculosis.—Patients in whom the predominant and sometimes only feature is tachycardia frequently cause some difficulty in diagnosis; in such cases pulmonary tuberculosis should always be seriously considered. The writer was asked to see a female patient who was thought to be suffering from mild toxic goitre. *Æt.* 25, she had one year's history of palpitations, sweating, occasional slight cough, but no sputum, loss of weight, appetite moderate, menses irregular; she was always of a nervous disposition. On examination: No exophthalmos, coarse tremor, thyroid slightly enlarged; pulse-rate 90; there were doubtful signs at the right apex, but an X-ray of the chest showed a tuberculous lesion in this position.

Addison's disease.—In addition to the incomplete forms of toxic goitre there are several peculiar types which may give rise to difficulty. One of these is the so-called adrenal type, termed by some writers "apathetic hyperthyroidism" (2), the clinical features of which may be highly suggestive of Addison's disease. That a brownish yellow pigmentation sometimes occurs in toxic goitre is well known, and frequently in toxic goitre asthenia is a marked feature. It is when pigmentation and asthenia occur together, in addition to mental apathy instead of the more usual restlessness and nervousness, that confusion is likely to arise. In this type, which occurs in patients of middle age or past middle age, there may be no exophthalmos and little staring of the eyes, the thyroid may be small, the pulse-rate is usually not higher than 100-120 and the cardiac

impulse is not forcible. The skin is relatively dry and cool, unlike the warm moist skin of the more usual variety, and tends to be pigmented. There is a considerable degree of asthenia, and the mental condition appears to be one of repose or apathy. Sometimes, however, the information may be obtained that although the patient is seemingly reposeful her emotions are "pent up". In elucidation of such a case a raised basal metabolic rate is in favour of toxic goitre.

Therapeutic test of iodine.—In cases of difficulty the therapeutic test of the administration of iodine may be of assistance (3). The patient should be confined to bed, and after a preliminary rest period of about two weeks should be given Lugol's solution, \mathcal{N} v, three times daily. If the patient has not a nodular goitre and if she has not received iodine recently, there will be a considerable fall in pulse-rate after iodine administration if she is suffering from toxic goitre, but not if she is suffering from some other disease.

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A. W. SPENCE.

PERFORATED PEPTIC ULCERATION.

THE perforation of a peptic ulcer into the general peritoneal cavity is an event which, unless recognized early and dealt with promptly by surgical means, inevitably leads to death. After perforation the patient may live for 72 hours or longer, and during this period presents a constantly changing clinical picture. The fact that the clinical picture is dynamic rather than static is at times overlooked, and this alteration corresponds to the peritoneal and systemic pathological changes which follow the abdominal catastrophe. In general the abdominal catastrophe is so dramatic and so acute that the doctor is likely to be called to the patient shortly after its occurrence. In these circumstances recognition of the true state of affairs should not give rise to serious difficulty. On the other hand, the patient may come under observation during any of the subsequent phases between perforation and death, and unless the changing clinical picture is remembered it is still possible for diagnostic errors to occur.

This transition from normal health to the moribund stage associated with a Hippocratic facies is a gradual one, but it is possible to divide this downward progress into various phases. These inevitably tend to overlap, but for purposes of description may be considered as follows: the actual moment of perforation, and the stages of chemical peritonitis, reaction, bacterial peritonitis, and, finally, paralytic intestinal obstruction.

THE MOMENT OF PERFORATION.

Pathologically, the perforation of a peptic ulcer usually represents the perforation of a chronic ulcer as the result of an acute exacerbation of the ulcerative process. Occasionally it occurs as a complication of acute ulceration, but this is very rare.

Clinically, the moment of perforation gives rise to sudden, intense upper abdominal pain which rapidly becomes generalized, and on account of its severity leads to collapse. The patient usually falls to the ground and is unable to move to assist himself. Few acute abdominal conditions are so dramatic and so sudden in their onset as perforation of a peptic ulcer—an event which may in the space of a few seconds bring an apparently healthy individual to helplessness and anguish. Acute pancreatitis is the only other acute abdominal condition which may at times give rise to a closely similar clinical picture.

The physical signs following perforation will be considered under the next section dealing with chemical peritonitis.

THE STAGE OF CHEMICAL PERITONITIS.

As the result of perforation of the stomach or duodenum, gastric or duodenal contents are poured into the peritoneal cavity. The insult to the peritoneum produced in this way is primarily a chemical one, and arises from the presence of hydrochloric acid and other digestive juices. At this stage the peritonitis is a chemical irritation rather than a bacterial phenomenon.

The stage of chemical peritonitis generally lasts for about six hours before passing gradually into the stage of reaction. During this time the patient suffers intense generalized abdominal pain. Nausea and vomiting are both exceptional. The patient lies motionless on the couch, usually with his legs drawn up, and is terrified to carry out any movement. The face is pale, the lips are blanched and the skin generally is cold and clammy. The temperature during this stage is subnormal, and may often be as low as 96° . On the other hand, despite the profound collapse and the almost shock-like condition which is present, the pulse shows surprisingly little alteration. A slight increase

usually occurs, but the rate rarely exceeds 90 per minute, and is often less than this. The respiratory rate is almost always increased owing to the absence of abdominal and diaphragmatic movements. Though the clinical condition bears some resemblance to true surgical shock, there is a fundamental difference in the fact that the pulse-rate is only slightly increased. The term "peritoneal shock" may be used to describe the clinical condition.

On examination of the abdomen at this stage retraction may be present, and this is especially likely to be the case with perforation of a gastric ulcer where a good deal of wasting has taken place. No abdominal movement occurs with respiration. On palpation there is generalized rigidity, which is invariably board-like. Anything more than the lightest pressure produces exquisite pain. On percussion two things may be made out. The first is the diminution or even the complete absence of the liver-dullness owing to the presence of gas in the peritoneal cavity, and the second is the presence of dullness in the flanks or hypogastrium on account of the collection of fluid at these sites. No attempt should be made to elicit shifting dullness in this or any other acute peritoneal condition on account of the painfulness of this manoeuvre, its uncertainty, and the risks of spreading infection to other parts of the peritoneum.

THE STAGE OF REACTION.

This stage represents the transition period between the stage of chemical peritonitis and that of bacterial peritonitis. Pathologically, it corresponds to the very early stage of bacterial peritonitis, and on the systemic side to the gradual transition from the stage of "peritoneal shock" to that of the toxæmia of bacterial infection.

The length of the stage of reaction shows considerable variation but rarely exceeds six hours. The most striking feature of this phase is the apparent improvement in the general condition of the patient—a feature which may lead to diagnostic difficulty. The patient experiences rather less spontaneous abdominal pain and feels generally better. He still lies completely motionless, however, and afraid to move. Instead of the blanched, ashen face of the previous stage, the lips and cheeks show signs of returning colour so that he actually looks better than he did some hours before. The temperature gradually returns to normal, the pulse shows very little change in frequency and the respirations remain slightly raised.

The abdominal physical signs show practically no alteration from those of the stage of chemical peritonitis. The retraction and immobility, the board-like rigidity,

the generalized tenderness and the alteration of the liver-dullness are all present. On percussion there may be an increase in the areas of dullness owing to the further exudation of peritoneal fluid.

The diagnostic difficulties in connection with this stage of the disease arise partly from the fact that the patient himself feels better and has rather less abdominal pain, partly from the fact that he looks better, and partly from the fact that his temperature and pulse show little variation from the normal. In these three respects his clinical condition shows considerable alteration from that of the preceding stage. On the other hand, the abdominal physical signs show scarcely

obstruction. Bacteria multiply in the peritoneal cavity; the exudate is increased and becomes more frankly purulent, the peritoneal surfaces become hyperæmic and glued together by a variable amount of fibrinous exudate. At the same time the intestines become distended with gas and fluid and the intestinal movements diminish.

Although it is true that patients with peritonitis have severe abdominal pain, it is also true that patients with a perforated peptic ulcer get the most intense pain during the hours immediately following the perforation, and that with the passage of time this pain gradually diminishes so that the stage of paralytic

Summary of Physical Signs in Various Stages.

	"Chemical peritonitis."	"Reaction."	"Bacterial peritonitis."	"Intestinal obstruction."
<i>Facies</i>	Ashen, anxious, cold and clammy	Looks better and of more normal colour	Cheeks flushed. Skin dry and hot. Tongue furred	Hippocratic, with sunken eyes, pinched nose and cold, clammy skin
<i>Temperature</i>	Subnormal	Approximately normal	Moderate fever	Falling and becoming subnormal
<i>Pulse</i>	Slightly increased, rarely above 90	As in previous stage or slightly increased	Rising	Increasing in frequency and becoming thin and thready.
<i>Respiration</i>	Thoracic in type, slightly increased in rate	Still thoracic and slightly increased in rate	Moderately increased in rate	Shallow and increasing in rate.
<i>Vomiting</i>	Nausea and vomiting usually absent	Absent	Vomiting commencing; gastric or duodenal in type	Progressive in amount and frequency and becoming feculent.
<i>Abdominal pain</i>	Intense	Intense	Present and generalized but not as intense as in previous stages	Diminishing.
<i>Appearance of abdomen</i>	Retracted	Still retracted	No longer retracted. Commencing distension	Progressive distension.
<i>Abdominal movements</i>	Absent	Absent	Absent	Absent or paradoxical.
<i>Rigidity</i>	Board-like	Board-like	Generalized but not board-like	Diminishing and eventually disappearing.
<i>Tenderness</i>	Exquisite and generalized	Exquisite and generalized	Generalized	Gradually diminishing.
<i>Liver-dullness</i>	Diminished or absent	Diminished or absent	Diminished or absent	Diminished or absent.

FIG. 1.

any appreciable alteration. Few surgeons can have escaped being called to patients at this stage who have been put to bed without an exact diagnosis having been made. The stage of reaction is the stage of deception. The patient, on his journey from the preceding shock-like stage to the succeeding stage of bacterial peritonitis, passes for a few hours through a phase which in some respects brings him nearer to the normal. Mistakes will not occur if this phase of illusion is remembered, and adequate attention paid to the history of the case and especially to the abdominal physical signs.

THE STAGE OF BACTERIAL PERITONITIS.

The stage of bacterial peritonitis begins about 12 hours after perforation, and lasts for 24 hours or more until succeeded by the stage of paralytic intestinal

obstruction may be almost painless. Abdominal pain is still present during the stage of peritonitis and is usually severe, but not as severe as during the hours immediately following perforation. The patient lies motionless in bed, but is no longer so terrified at the thought of even the slightest movement. Nausea and vomiting usually occur with the development of bacterial peritonitis. The facies at this stage are typically peritonitic. The eyes are bright, the cheeks flushed, the skin dry and the lips and tongue parched. A variable degree of fever is present, and the extent of this depends on the antecedent general condition of the patient. With patients in a good general condition the febrile reaction is marked, whilst in those who are wasted it may be comparatively slight. Throughout this stage the pulse gradually rises and the respirations remain increased.

Abdominal physical examination shows certain differences between this and the preceding stage. As the result of the accumulation of gas and fluid in the intestines the abdomen begins to get distended and, on inspection, the retraction which was formerly present has disappeared. Abdominal distension continues to increase until death. There is still no abdominal movement on respiration, and, on palpation, generalized rigidity is still present but is no longer board-like. It is the presence of generalized abdominal rigidity which limits for a time the distension. Tenderness is still present, but this also gradually tends to lessen. The diminution or obliteration of the liver-dullness still persists.

THE STAGE OF INTESTINAL OBSTRUCTION.

The stage of intestinal obstruction begins about 36 hours after perforation and ends in the patient's death, usually at about 72 hours. This stage represents the paralytic stage of general peritonitis, and is clinically very similar to the terminal stages of intestinal obstruction from other causes. The intestinal paralysis is progressive, and the intestines become increasingly distended with gas and fluid. Pathologically there is a fall in the blood chlorides and a rise in the blood urea, following the loss of fluids from the body as the result of the profuse vomiting.

During this stage, spontaneous abdominal pain gradually diminishes. This is probably due to the dulling and exhaustion of nervous centres as the result of prolonged and intense peritoneal stimulation, and in part due to the gradual passing off of abdominal rigidity. It is during this stage that the patient begins to develop the characteristic Hippocratic facies, with the sunken eyes, the pinched nose and ears, and the ashen, clammy skin. This Hippocratic facies implies impending death, and the transition from the preceding peritonitic stage to the typical obstructive phase is a gradual one. Vomiting during this stage is frequent, profuse and usually without nausea. The patient turns his head to one side, and the intestinal contents simply pour forth without any obvious muscular effort or retching. As regards the actual material vomited, this is gastro-duodenal contents in the earlier stages, whilst in the later stages it becomes frankly feculent. During the early part of the stage of intestinal obstruction a moderate degree of fever may still be present. On the whole, however, this gradually subsides, and during the terminal phase of his illness the patient has a subnormal temperature, which may be as low as 95°. At the same time the pulse shows a steady increase in frequency—an increase which began during the stage of reaction, was progressive throughout the stages of

chemical and bacterial peritonitis, and in the obstructive stage may reach 140 to 160 per minute. The full bounding pulse of the peritonitic stage gradually gives way to the thin, thready, running pulse of the obstructive stage. At the same time there may be considerable increase in the frequency of the respirations, which become short and shallow partly on account of hypostatic changes in the lungs.

Abdominal examination shows progressive distension due to the collection of gas and fluid in the underlying bowel. There may be some movement of the abdominal wall with respiration, but this may be of a paradoxical

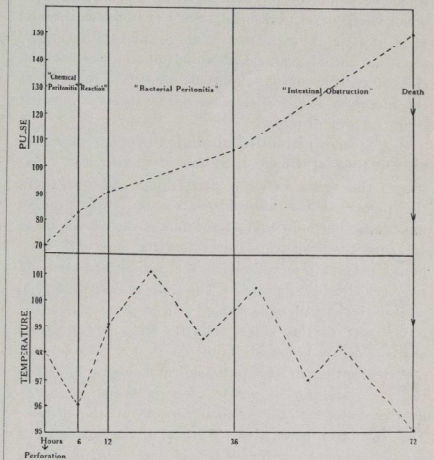


FIG. 2.—Diagram showing the general course of the temperature and the pulse in the various stages following perforation of a peptic ulcer into the general peritoneal cavity.

nature. On palpation, rigidity diminishes throughout this stage, and the generalized rigidity of peritonitis gradually disappears and is replaced by a flaccid abdominal wall. Similarly, tenderness also diminishes, and in the terminal phase of the disease may completely disappear. Dullness in the flanks and in the hypogastrium increases as the result of accumulation of fluid.

* * *

In taking the history of a patient with a suspected perforation of a peptic ulcer, inquiry will naturally be made as to the history of any antecedent ulceration. In many cases it is found that there has been an aggravation of abdominal symptoms and the associated

dyspepsia in the period immediately preceding perforation.

Although perforation usually takes place into the general peritoneal cavity, in a few instances it may be into the lesser sac. On the whole, however, ulcers of the posterior wall of the stomach show a marked tendency to fixation to the posterior abdominal wall, and in consequence, though they frequently give rise to gastric hemorrhage, perforation is a rare complication. When the lesser sac of the peritoneum is involved in this way as the result of a perforation of a gastric ulcer, the abdominal symptoms may not necessarily be as acute or the physical signs be so generalized as when the general peritoneal cavity is involved. Some of the patients with this type of perforation may, after an initial acute abdominal phase, present the clinical picture of a subphrenic abscess. A detailed consideration of these lesser sac perforations is omitted from the present paper.

Prognosis in perforated ulceration depends primarily on the time at which operation is carried out. The longer the delay between perforation and operation, the higher is the mortality-rate. In cases coming under observation within a few hours of the development of acute symptoms, prognosis is good, but with each hour's delay after perforation the patient's chances of recovery steadily diminish. The stage of early bacterial peritonitis is still compatible with recovery, but the latter part of this stage and the stage of intestinal obstruction are uniformly fatal.

A realization of the pathological changes following the perforation of a peptic ulcer is essential to the understanding of the clinical aspects of the disease. The fact has been stressed that a patient with a perforated peptic ulcer does not long remain in an unchanged condition. With the object of simplifying the recognition of these changes the main features of the various stages have been stressed. The rapidity with which the patient passes from one stage to the next depends upon many factors, of which his general condition and resistance are probably the most important. On this account the actual duration of the various stages is of no great significance and may show very wide variations. In the stage of chemical peritonitis there should rarely be any doubt as to the diagnosis. It is in the stage of reaction which follows that a more serious diagnostic difficulty may be encountered. This stage of illusory and transient improvement has been discussed, but it is well to remember that during this stage the abdominal physical signs do not admit of any serious doubt as to the true state of affairs. The stage of bacterial peritonitis should not give rise to serious difficulty in diagnosis,

but the condition may have to be differentiated from general peritonitis due to other causes. The final stage of the disease has to be differentiated from acute intestinal obstruction due to other causes, but the history, sequence and rapid progress of the case usually make the diagnosis clear.

Fig. 1 shows in diagrammatic form the essential features of the disease during the various stages, and Fig. 2 shows the general course of the temperature and the pulse.

REGINALD PAYNE.

STUDENTS' UNION.

CRICKET CLUB.

The following matches have been played since May 24th:

- v. Romany C.C. Lost by 34 runs. Romany 234 (Rutherford 4 for 47, Harmer 5 for 97); St. Bartholomew's Hospital 200 (North 46, Harold 42, Harmer 40).
- v. Leavesden Mental Hospital. Lost by 4 wickets. St. Bartholomew's Hospital 189 (North 49, Brown 33); Leavesden 206 for 7 wickets.
- v. Croydon. Lost by 1 wkt. St. Bartholomew's Hospital 156 (Brown 45, Little 37); Croydon 104 (James 6 for 38).
- v. Wanderers' C.C. Drawn. Wanderers 300 for 4 wickets declared; St. Bartholomew's Hospital 181 for 3 wickets. (Johnstone 83, Heyland 73).

PAST V. PRESENT.

Played at Winchmore Hill on May 24th. The Present won by 5 wickets.

PAST.			
Boney, b Mundy	5	Hunt, lbw, b Nicholson	24
Bourne, c Johnstone, b Mundy	39	Wilson, c Slowe, b Mundy	39
Mundy	6	Maley, b Anderson	25
Wells Cole, c Wheeler, b Harmer	9	Hay-Shunker, not out	13
Gilbert, c Anderson, b Nicholson	49	Extras	19
Capper, b Nicholson	13	Total (for 8 wickets, dec.)	202

Dransfield and Howell did not bat.

PRESENT.

Heyland, not out	86	Maidlow, b Wells-Cole	17
Johnstone, b Maley	25	Harmer, not out	28
Wheeler, b Maley	0	Extras	5
Brown, b Hay-Shunker	10	Total (for 5 wickets)	212
North, b Hay-Shunker	41		

Mundy, Slowe, Nicholson and Anderson did not bat.

ST. BARTHOLOMEW'S HOSPITAL v. MIDDLESEX HOSPITAL.
2nd Round Inter-Hospital Cup.

Played at Winchmore Hill on June 10th. Won by 181 runs.

Heyland, lbw, b Gethen	26	Harmer, c Abraham, b Gethen	44
Johnstone, b Skea	48	Hunt, not out	63
Wheeler, b Muir	0	Mundy, c Miller, b Abraham	11
Brown, b Thompson	0	Rutherford, not out	23
North, b Gethen	8	Extras	10
Maidlow, c Davies, b Thompson	32	Total (for 9 wickets, dec.)	280
James, c Thompson, b Muir	7		

MIDDLESEX HOSPITAL.

99 all out (James 4 for 41, Harmer 3 for 8).

LAWN TENNIS CLUB.

1ST VI.

1st Round Inter-Hospital Cup.

Played on Friday, May 22nd, at Winchmore Hill, St. Bartholomew's Hospital by University College Hospital by 9 matches to nil.

Although U.C.H. did not win a match, we saw several close encounters. E. Corsi gave a most instructive exhibition of singles play when he beat J. F. Stokes 6-0, 6-2. W. K. Frewen just managed to beat A. L. Cochrane 6-3, 5-7, 8-6 after a long struggle. P. J. Hardie dropped the second set to G. H. Pearce before he got into his full stride, to win 6-2, 2-6, 6-1. H. R. Barnett beat J. R. Macleod 6-4, 5-7, 7-5, and G. L. Way beat H. M. Sinclair 6-2, 6-4. Thus, at the end of the singles Bart's were leading by 5 matches to nil, and all the doubles which were played also went the same way.

E. Corsi and W. K. Frewen beat J. F. Stokes and A. N. Cochrane 6-2, 7-3; beat J. H. Macleod and H. M. Sinclair 6-0, 6-1. K. G. Witt and P. J. Hardie v. G. H. Pearce and H. A. Burt 7-0, 7-5, 9 all (unfinished). G. L. Way and H. R. Marnett beat J. F. Stokes and A. L. Cochrane 7-3, 6-2; beat J. R. Macleod and H. M. Sinclair 6-2, 6-4.

PAST V. PRESENT.

On Saturday, May 23rd, the Past were defeated by the Present by 3 matches to 6. In a very enjoyable match E. Corsi and W. K. Frewen beat J. Beattie and C. H. Evans 6-0, 6-1; beat J. H. Hunt and H. E. Archer 6-1, 6-3; beat O. S. Tubbs and R. Marnett 0-1, 0-1.

R. C. Witt and P. J. Hardie beat J. Beattie and C. H. Evans 6-2 6-1; beat J. H. Hunt and H. E. Archer 3-6, 9-7, 6-2; lost to O. S. Tubbs and R. Marnett 2-5, 2-6.

H. R. Marnett and M. H. Desmarais beat J. Beattie and C. H. Evans 9-7, 5-7, 6-3; lost to J. H. Hunt and H. E. Archer 6-0, 5-7, 4-6; lost to O. S. Tubbs and R. Marnett 5-7, 0-6.

SWIMMING CLUB.

Inter-Hospital Water-Polo League.

Results:

- v. St. Thomas's Hospital; away. Won, 11-3.
- v. St. Mary's Hospital; home. Won, 8-3.
- v. Dental and Charing Cross Hospital; away. Won 7-0.
- v. University College Hospital; home. w.o.
- v. Guy's Hospital; away. Lost, 3-5.
- v. London Hospital; home. Won, 13-0.

The results speak for themselves. All of the games were won easily with the help of Sutton, Newbold, Norton and McKane, who were the principal scorers. The unfortunate lapse against Guy's was due to the weak team we fielded, owing to the demands of county matches on some and lack of enthusiasm among other members of the Club.

Other Fixtures.

Results:	Polo.	Swimming.
v. Leisburys; away	Won, 3-2	Won.
v. Old Millhillians; away	Won, 5-1	Lost.
v. St. Paul's School; away	Won, 6-3	Lost.
v. Epsom College; away	Scratched.	
v. Cambridge Tadpoles; away	Lost, 2-6	Won.
v. St. Mary's Hospital; away	Lost, 3-6	Lost.

Owing to the late start of the season occasioned by making new bath arrangements only five matches have been played, three being scratched. The swimming has been fair. We beat the Tadpoles 17-14; Newbold and Pratt came first and second in the 100 yards, Singer second in the 50 yards, and Evans won the diving.

Lack of training has lost us the swimming on several occasions. With the better facilities offered to members now at St. Mary's, where we have the bath once a week entirely to ourselves, more keenness would obviate these failures.

COLLEGE APPEAL FUND.

SUBSCRIPTIONS TO DATE.

Staff	£	s.	d.	*
Demonstrators	13,404	1	4	(78)
Students	1,774	17	0	(72)
Old Bart's men:	1,224	13	1	(324)
† Bedfordshire	45	18	6	(9)
Berkshire	123	3	0	(16)
‡ Buckinghamshire	82	4	0	(15)
‡ Cambridgeshire	194	6	0	(18)
‡ Cheshire	6	16	6	(3)
‡ Cornwall	22	12	0	(8)
Cumberland	5	0	0	(1)
Derbyshire	19	11	0	(4)
‡ Devonshire	575	1	0	(54)
‡ Dorset	77	11	6	(14)
‡ Durham	17	7	0	(4)
Essex	267	3	6	(23)
‡ Gloucestershire	257	5	6	(20)
Hampshire	1,517	4	6	(59)
‡ Herefordshire	17	12	0	(4)
Hertfordshire	91	18	0	(19)
Huntingdonshire	5	5	0	(1)
Ile of Wight	191	13	0	(13)
‡ Kent	588	5	0	(72)
‡ Lancashire	127	14	0	(10)
‡ Leicestershire	142	0	0	(8)
‡ Lincolnshire	61	9	0	(8)
‡ Middlesex	497	14	0	(34)
‡ Norfolk	278	6	6	(24)
‡ Northamptonshire	59	14	6	(6)
‡ Northumberland	101	1	0	(2)
‡ Nottinghamshire	24	3	0	(5)
‡ Oxfordshire	231	15	0	(22)
Rutland	1	1	0	(1)
Shropshire	38	1	0	(10)
‡ Somersetshire	2,837	6	4	(28)
Staffordshire	194	18	0	(16)
‡ Suffolk	334	0	6	(26)
Surrey	243	18	6	(22)
Sussex	752	4	6	(63)
‡ Warwickshire	214	19	0	(24)
Westmorland	2	10	0	(1)
‡ Wiltshire	1011	12	0	(13)
‡ Worcestershire	161	1	6	(25)
‡ Yorkshire	330	3	0	(29)
Wales	69	12	0	(20)
London	6,851	5	2	(228)
Channel Islands	40	0	0	(4)
Scotland	15	5	0	(5)
Abroad	119	1	0	(13)
South Africa	376	18	6	(30)
Canada	114	3	6	(8)
East Africa	57	12	0	(10)
West Africa	146	0	0	(5)
India	207	12	0	(13)
Ireland	25	4	0	(4)
North Africa	1	0	0	(1)
North Borneo	10	10	0	(1)
Australia	122	2	0	(6)
China	52	8	4	(9)
Siam	10	0	0	(1)
France	30	0	0	(1)
British West Indies	93	8	0	(7)
Straits Settlements	7	1	0	(3)
New Zealand	6	1	0	(3)
Services	654	14	6	(49)
Others	71,377	9	7	(568)
Lord Mayor's Appeal	17,950	16	0	
Funds of College	8,000	0	0	
Value of Building	25,000	0	0	
Loan	20,000	0	0	
Stock Sold	4,061	0	0	
Total	£178,793	9	4	

* Number of Bart's men subscribing. † Number of Bart's men in County. ‡ Counties with Secretaries.

TIMES OF ATTENDANCE IN X-RAY DEPARTMENT: A CORRECTED LIST.

	Monday.	Tuesday.	Wednesday.	Thursday.	Friday.	Saturday.
Diagnostic	Dr. Loughborough at 9.30 a.m. Dr. Sparks at 1.30 p.m.	Dr. Finzi at 9.30 a.m. Dr. Stone at 1.30 p.m.	Dr. Stone at 9.30 a.m.	Dr. Loughborough at 9.30 a.m. Dr. Stone at 1.30 p.m.	Dr. Sparks at 9.30 a.m. Dr. Loughborough at 1.30 p.m.	Dr. Sparks at 9.30 a.m.
Therapeutic	Dr. Finzi at 1.30 p.m. Dr. Levitt at 2.30 p.m.	Dr. Levitt at 1.30 p.m.	Dr. Levitt at 9.30 a.m.	Dr. Levitt at 1.30 p.m.	Dr. Levitt at 9.30 a.m. Dr. Finzi at 1.30 p.m.	—

CORRESPONDENCE.

JOHN MELLY.

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

Sir—It appears to me fitting that the work and self-sacrifice of John Melly should be commemorated in this Hospital by some form of memorial, and I should like to suggest that the matter should be considered by the authorities. I am certain that many of his friends, both medical and others, would be glad to contribute to such a memorial. Should this already have been taken in hand I must apologize for troubling you.

Yours, etc.,

Westfield, West Hill,
Harlow-on-the-Hill;
June 4th, 1936.

O. R. TRIDELL.

THE MESSAGE DEPARTMENT.

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

Sir, It would appear that some of your readers have interpreted my article on the Message Department as a history of that Department. This was far from being my intention when I wrote the article. A history of the Department would have to include its shifting of position from the old Surgery, where it started, to the new Out-Patient Quarters (now the X-Ray Department), and thence after long-drawn-out negotiations to its present locale in the Medical Out-Patient Department. This site, intended to be temporary, has remained permanent for more years than I care to recumber, and is likely to last out my time. And I should also, in an historical summary, have mentioned more of the staff of the Department. From 1908 onwards we have had a sister-in-charge of the Department, first Miss Vergette, who was responsible for its organization, and who (with two or three nurse-pupils) had also to treat all the in-patients; later Miss McCulloch Smith, who now has charge of the fully trained staff. Lieut. Thom also had male assistants and successors, and at one time we had blind pupils from St. Dunstan's attending. But as I have already said, these historical details were not really within the scope of my article, which was intended to be a guide to the present-day student, and to help him to understand the position and training of the massage profession.

Yours, etc.,

R. C. ELSLIE.

1A, Portland Place, W. 1;
May 26th, 1936.

THE TEACHING OF THERAPEUTICS.

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

Sir—A certain gentleman has put in a plea for more space in our clinical lectures to be devoted to treatment. Although a student myself I cannot support this plea. May I point out to him that the basic function of this Hospital, from the teaching point of view, is to teach diagnosis rather than treatment? As we all know, or will very soon find out, rational treatment is quite impossible without accurate diagnosis. Therefore it neither surprises me nor worries me that our lecturers spend thirty-five of their allotted forty minutes on the latter subject.

When we reach the stage of medical practice we can "look up" the question of treatment in a great many of our cases; whereas it is a very different matter to obtain a diagnosis from any book. It is essential that we should spend by far the greater part of our time here in developing "clinical sense" and learning the art of diagnosis. It is in the very best interests of our patients, even if we come to regard treatment as a mere after-thought.

I remain, Sir,

Yours faithfully,

C. M. DICKINS.

REVIEWS.

SYMPTOMS AND SIGNS IN CLINICAL MEDICINE: AN INTRODUCTION TO MEDICAL DIAGNOSIS. By E. NOTLE CHAMBERLAIN, M.D., M.Sc., M.R.C.P. With a chapter on "The Examination of Sick Children", by NORMAN B. CAPON, M.D., F.R.C.P. (Bristol: John Wright & Sons, Ltd., 1936.) Pp. 424. 282 illustrations, of which 17 are in colour. Price 25s.

When the student begins his study of clinical medicine, he is frequently beset with the difficulties of what questions he should ask the patient and what signs he should look for in the elucidation of the diagnosis. This book amply supplies his needs. The first chapter describes the method of obtaining a history from the patient, and contains a valuable table setting out the line of investigation the medical man should adopt in endeavouring to determine the cause of the patient's complaints. Subsequent chapters deal in more detail with the symptoms and signs appertaining to systemic disease. The tedium, however, of memorizing symptoms and signs is relieved at the end of each chapter by a brief description of the commoner and more important diseases of that particular system, whereby the student may learn how his findings may be pieced together in arriving at a diagnosis. Mention is also made of the special laboratory and instrumental investigations which may be necessary in the complete examination of the case, and those simpler ones which may be carried out by the general practitioner. The value of the book is greatly enhanced by the excellent illustrations and radiograms, which show better than words can describe the methods of examination and the diseased states which may be encountered.

A MANUAL OF PRACTICAL OBSTETRICS. By O'DONEL DROWNE, M.B., B.Ch., B.A.O., F.R.C.P.I., I.M., M.C.O.G. (Bristol: John Wright & Sons, Ltd.) Pp. 363. 10 plates, 236 illustrations. Price 20s.

The first thing which strikes one about this volume is that it is small. It has been kept so purposely, for it is intended to be of practical assistance to the student and the practitioner. The book is well printed and clearly illustrated, and the majority of the matter contained is tabulated so that it can easily be used for reference. The diet charts and other lists will be useful to the practitioner. There are opinions in the book which are at variance with the London teaching, notably the advocacy of induction of labour at the thirty-sixth week in contracted pelvis in primipara, the application of the forceps to the breech, and the encouragement given to packing the uterus in cases of post-partum haemorrhage. There are other smaller points which will probably mean that the book will be more widely used in Dublin than in London.

1. **MINOR SURGERY AND THE TREATMENT OF FRACTURES.** By GWYNNE WILLIAMS, M.S., F.R.C.S., Twenty-first edition. (Messrs. J. & A. Churchill, 1936.) Price 10s. 6d.
2. **ELEMENTARY SURGICAL HANDICRAFT.** By J. RENFREW WHITE, Ch.M., F.R.C.S., F.A.C.S. (Messrs. J. & A. Churchill, 1936.) Price 8s. 6d.

The new edition of Mr. Gwynne Williams's excellent little book appears under a slightly different title, and the inclusion of the section on the treatment of fractures will be of great value to the house surgeon. All common fractures are briefly but adequately dealt with, and the modern methods of plaster technique and skeletal traction are a feature. One is, however, a little disappointed that no mention is made of the three-handkerchief method of treating fractures of the clavicle, although Sayie's method is described at some length. The chapter on anaesthetics has been very ably written by Dr. H. N. Webber, and he contributes much useful information on basal narcotics and methods of local anaesthesia. Interest is added by a short note on the original author and his successors, together with a portrait.

In comparison with this popular book, Mr. Renfrew White has not been so successful in his unenviable task of trying to impart a knowledge of bandaging and other minor surgical procedures, due partly to the poor and inadequacy of the illustrations, and partly to the rather bewildering variety of methods, many of which are unlikely ever to be used. The mechanical tourniquets described in the chapter on haemorrhage, for instance, hardly find a place in modern surgical practice.

PRACTICAL POINTS IN ANAESTHESIA: A CLINICAL HANDBOOK FOR STUDENTS AND GENERAL PRACTITIONERS. By H. K. AGNEW, M.B., L.R.C.P. (Lond.), D.A. (R.C.P. & S. Eng.). With a CHAPTER ON LOCAL ANAESTHESIA by H. T. SIMMONDS, B.Sc., M.B., Ch.B. (Vict.), F.R.C.S. (J. & A. Churchill, 1936.) Price 7s. 6d.

This little book is a reprint of a series of articles published in the *Manchester University Medical School Gazette*, and is intended for the beginner.

With this object in view the book is intentionally elementary, theoretical considerations are minimized, and practical points emphasized by paragraph headings in black type.

The early chapters are the best part of the book, and those on pre-operative considerations, induction, maintenance and complications of anaesthesia are clearly written, and contain many helpful hints on the difficulties that may be encountered and how they may be overcome.

The chapter on nitrous oxide is definitely inadequate for the needs of the modern student. The account of nitrous oxide-oxygen anaesthesia is sketchy, while there is no mention whatsoever of the use of nitrous oxide (without oxygen) for minor operations or for dental work. The author apparently subjects all his dental cases to a C.E. mixture. Surely one of the most frequent anaesthetics the general practitioner is called upon to give is the straightforward dental gas?

The chapter on Local Anaesthesia is good, but why include in a book of this type such detail as an account of splanchnic block anaesthesia?

This is nevertheless a book which the student can read with advantage to himself and increased safety to his patients, and could well be perused in a corner of the anaesthetic room while waiting his turn "at the chin".

"HERO-DUST." By JAMES KEMBLE, Ch.M., F.R.C.S. (London: Methuen, 1936.) Price 6s. net.

I must confess some little disappointment with Mr. James Kemble's new book, *Hero Dust*, in which he carries on the same line of thought which made his *Idols and Invalids* such an amusing and authentic piece of historical indirection. For although he ostensibly sets out to deal with his diverse characters—Mary, Queen of Scots, Epicurus, Catherine the Great, John Milton, Beau Brummell, and Omar Khayyam—in the same way as before, laying the responsibilities for their historical acts upon their disordered physiologies, the potted history is rather too generous, and the pathology, in several cases, all too thin.

Beyond recording the fact that Epicurus had a vesical stone and Beau Brummell died of a stroke, he makes no attempt to link their destinies with their diseases. And it is difficult to see why

Omar, who had a perfectly clean bill of health, and died a centenarian, is there at all, unless it is for an exposition of the *Rubaiyat*, which has been done before and done better.

Nevertheless the book is well written, and even if the author's humour becomes at times a shade facetious, it is often amusing—two qualities not to be sneezed at in these days of literary incompetence and incontinence.

A MANUAL OF EMERGENCIES—MEDICAL, SURGICAL AND OBSTETRIC: THEIR PATHOLOGY, DIAGNOSIS AND TREATMENT. By J. SNOWMAN, M.D., M.R.C.P. Third edition. (John Bale, Sons & Danielsson, 1936.) Price 10s. 6d.

The author's most laudable object may be gathered from the title of this book: a book of pocket size, intended to contain all the emergencies with which the general practitioner is likely to be faced. Important differential diagnoses are given in tabular form and prescriptions are both numerous and detailed. Heavy type is well used to catch the hurried eye. A suggestion for further improvement would be the inclusion in the index of important symptoms as an aid to diagnosis. This book is certainly unique in its scope and should continue to be of great service both to "housemen" and general practitioners. The third edition contains many recent advances in treatment.

ELEMENTARY ZOOLOGY FOR MEDICAL STUDENTS. By L. A. BORRODALE, Sc.D. Third edition. (Oxford Medical Publications, 1935.) Pp. 429. Price 10s. 6d.

This new edition of a text-book with so well-established a reputation will receive a welcome in many quarters. The careful revision which it has received has improved the volume considerably, and has brought its contents more completely into line with the "agreed syllabus" in biology of the Universities of Oxford, Cambridge and London. In this respect it forms a zoological counterpart to the *Elements of Plant Biology* by Tansley and James, which was reviewed in our last issue. We can assure our readers that the work is eminently suitable for those preparing for the First Medical Examination.

AN INTRODUCTION TO HYGIENE. By W. ROBERTSON, M.D., D.P.H., F.R.C.P. (Ed.). Second edition. (E. & S. Livingstone, 1936.) Pp. xv + 314. Price 8s. 6d.

In his introduction Dr. Robertson says "Books act as guides", and certainly this book should be sufficient to guide a student through the university qualifying examinations. Out of his wide experience, both as medical officer of health and lecturer and examiner in the subject, has come a concisely written book dealing in an easily understood manner with the various aspects of preventive medicine. There is also some very good advice in the introduction to those about to embark on a medical career. Apart from minor faults, such as an annoying habit of splitting infinitives and a reference to Hunterian sore as soft, this is a book to recommend for any medical man's library. The book is well produced, the print is large and clear and the paragraphs are well emphasized, so that it is easy to see the subject-matter at a glance.

THE CHEMICAL CONTROL OF CONCEPTION. By JOHN R. BAKER, M.A., D.Phil. (Chapman & Hall, 1936.) Pp. x + 173. Price 15s.

In this small book Mr. Baker has presented the results of many years' well thought out and carefully controlled experiments. First he describes how a physiological solution in which the tests could be performed was obtained; and how cavity sperms, which he used in most of the tests, were found to respond to widely varying types of stimuli in an almost identical manner to human sperms. Many substances, mostly of a complicated formula developed from already accepted spermicides, were tested and the criteria of their potency described in detail. Several of the common suppositories and pessaries sold as contraceptives were also tested, with rather depressing results. A chapter is added on the pathology of contraception by H. M. Carleton, and tables are appended comparing the results of the tests. Altogether a very excellent book, although rather for the biochemist or specialist than for the average doctor.

EXAMINATIONS, ETC. University of Cambridge.

The following Degrees have been conferred :

- M.D.**—Bourne, W. A., Burrows, H. J.
M.B., B.Chir.—Gordon, C. J., Martin Jones, J. D.
M.D.—Patterson, J. H., Tracey, J. B.
B.Chir.—Black, K. O., Briggs, W. A., Darmady, E. M.

University of London.

Third (M.B., B.S.) Examination for Medical Degrees, May, 1936.
 Honours.—*Clarke, E. P.

* Distinguished in Surgery.

Pass.—Anderson, C., Beach, H. L. W., Hartsilver, J., Kanaar, A. C., Martin, J. R. M., Ogilvie, J. D., Oliver, W. A., Roberts, J. C., Sheehan, D. J., Taylor, G. R.

Supplementary Pass List.

- Group I**—Feanley, J. D. O.
Group II—Barnard, E. J. W., Brentnall, G. C., Brown, K. P., Cochrane, J. W. C., Gibson, R. E., Grundy, T. N., Leask, L. R., McGladdery, J. P., Roberts, J. L. D., Rotter, K. G., Samuel, D. M.

University of Witwatersrand.

The following Diploma has been conferred :

D.P.H.—Clark, B. M.

CHANGES OF ADDRESS.

- CAMMIDGE, P. J.**, 85, North Gate, Regents Park, N.W. 8. (Tel. Primrose 6211.)
DE CAUX, F. P., 30, Green Street, Mayfair, W. 1. (Tel. Mayfair 7177.)
ECCLES, W. McADAM, 104, Bryanston Court, Upper George Street, W. 1. (Tel. Paddington 7400—unaltered.)
HARRIS, CHARLES F., The Warden's House, St. Bartholomew's Hospital Medical College, Charterhouse Square, E.C. 1. (Tel. Clerkenwell 4616.) [31, Weymouth Street, W. 1. (Tel. Langham 1723)—unchanged.]
MASTERMAN, E. W. G., English Mission Hospital, es Salt, Trans-Jordan.
PRATT, ELDON, 3, Dorchester Mansions, Manor Road, Bournemouth.
SHORE, T. W., "Dunrobin", Vapron Road, Plymouth. (Tel. Plymouth 5176.)
TAYLOR, G. C., 3, Kingsdale Road, Berkhamsted, Herts.

APPOINTMENTS.

HUNT, W., M.R.C.S., L.R.C.P., appointed Certifying Factory Surgeon for the Carlton District, Nottingham.
SHARP, B. BUCKLEY, M.D., M.R.C.P., appointed Honorary Consulting Physician to Acton Hospital.

BIRTHS.

- ARCHDALE-SMITH.**—On May 21st, 1936, at 31, Brunswick Road, Hove, to Peggy (*née* Lacey), wife of David Archdale-Smith, M.B.—a son.
DAY.—On May 22nd, 1936, at 17, Chapel Field East, Norwich, to Dr. and Mrs. George Day—a son.
GARSON.—On June 3rd, 1936, at 66, Rodney Street, Liverpool, to Nan, wife of Philip Garson—a daughter.
HOBBS.—On June 12th, 1936, at Old Court, Ealing, to Agnes, wife of Dr. A. N. Hobbs, 30, Woodville Road, W. 5—a son.
HOSFORD.—On May 27th, 1936, at Cairnton, Stormont Road, Highgate, to Nora (*née* Randall), wife of K. W. P. Hosford, F.R.C.S.—a daughter.
JORY.—On June 3rd, 1936, at 2, Broadlands Road, Highgate, to Daphne, wife of Norman Jory, F.R.C.S.—a daughter.
PERROTT.—On June 5th, 1936, at Suffolk House, Stanmore, to Louie, wife of Dr. G. F. Donaldson Perrott—a son (John Anthony).

- KADCLIFFE.**—On May 24th, 1936, at 102, Rockingham Road, Kettering, to Phyll, wife of Frank Radcliffe, M.B., F.R.C.S.—a son.
SAWLE THOMAS.—On June 9th, 1936, at 20, Devonshire Place, W. 1, to Maryon, wife of J. Sawle Thomas, M.R.C.S. Eng.—a daughter.
TANNER.—On May 30th, 1936, at the Melvin Nursing Home, Newton Abbot, to Nancy (*née* Thynne), wife of Dr. Guy Montague Tanner—a son.
WILKIN.—On June 11th, 1936, at 50, London Road, Gloucester, to Margaret Annette (*née* Graham), wife of W. J. Wilkin, F.R.C.S.—a daughter.

MARRIAGES.

- FURBER—CRAWFURD.**—On May 30th, 1936, at St. Peter's, Earley, Reading, Lionel Brian Furber, son of Dr. and Mrs. Furber, of Twyford, Berks, to Gwendolen Mary Payne Crawford, daughter of Lt.-Colonel and Mrs. Crawford, Merrows, Westcote Road, Reading.
HUDSON—ADLINGTON.—On June 9th, 1936, in London, Bernard Hudson, M.D., M.R.C.P., of Davos, Switzerland, to Laura Almon, younger daughter of Mr. and Mrs. Adlington, of Bath.
LOCKETT—BRADING.—On June 6th, 1936, at Emmanuel Church, Croydon, Dr. John Morton Lockett, M.R.C.S., L.R.C.P., eldest son of Mr. and Mrs. A. W. Lockett, of Croydon, to Barbara Cicely, youngest daughter of Mr. and Mrs. L. H. Brading, of Sutton, Surrey.
MAXWELL—EVANS.—On June 4th, 1936, at St. Bartholomew-the-Great, Smithfield, quietly, by the Rt. Rev. Bishop Paget, James Maxwell, M.D., F.R.C.P., to Elizabeth Nan Evans.
PATTERSON—YEAMES.—On June 10th, 1936, at Helen's Bay Church, by the Rev. L. Martin, B.A., Dr. Joseph Henry Patterson, elder son of the Hon. Mr. Justice D. C. Patterson and Mrs. Patterson, Gabuille, to Hélène Sobolevski, second daughter of Mr. and Mrs. Yeames, Old Mill House, Helen's Bay, co. Down.
ROBERTS—JOHNSON.—On June 10th, 1936, at St. Mary's, Dunmow, by the Rev. E. Noel Mellish, V.C., M.C., Vicar, Arthur Michael, elder son of the late Arthur H. Roberts, West Malling, Kent, to Freda Mary, youngest daughter of the late Walter Johnson, of Terrington St. John's, Norfolk.
SLOT LEWIS.—On May 29th, 1936, Gerald Slot, M.D., of 117A, Harley Street, W. 1, to Mary Lewis, of 2, Wellington House, Regent's Park, N.W. 8, daughter of the late Mr. and Mrs. J. A. Munton, of Idle, Yorkshire.

DEATHS.

- COPE.**—On June 5th, 1936, Albert Ernest Cope, M.D., B.S., D.P.H., late of 66, Belgrave Road, Westminster, aged 68.
DAVIES.—On June 12th, 1936, suddenly, in London, Jenner Conway Davies, M.B., B.Ch., M.R.C.P., youngest son of the late Dr. G. A. Davies, of Newport, Mon., and Mrs. Davies.
GILMOUR.—On June 10th, 1936, at The Cedar House, Woodbridge, Percy Graham Gilmour, M.R.C.S., L.R.C.P.
HURBLEY.—On June 2nd, in St. Bartholomew's Hospital, William Holdsworth Hurbley, of 28, Chestnut Road, S.E. 27, aged 70.
NELSON.—On June 24th, 1936, at St. Bartholomew's Hospital, Henry Philbrick Nelson, M.D., F.R.C.S., beloved husband of Kathleen Nelson, aged 34.
WORTH.—On June 24th, 1936, at Bar Helford Passage, Falmouth, Claud Worth, F.R.C.S. (late 34, Harley Street).

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, E.C. 1.
 The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, M. G. J. WILLIAMS, M.B.E., B.A., at the Hospital.
 All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.

St. Bartholomew's Hospital



JOURNAL.

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

Vol. XLIII.—No. 11.]

AUGUST 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Mon., Aug. 3.	—Bank Holiday.
Tues., " 4.	—Prof. Witts and Prof. Paterson Ross on duty.
Thurs., " 6.	—Cricket Tour. Match v. Bridport. Bridport.
Fri., " 7.	—Dr. Hinds Howell and Mr. Harold Wilson on duty.
Fri., " 7.	—Cricket Tour. Match v. Cambridge Sou'westers.
Sat., " 8.	—Honiton.
Mon., " 10.	—Cricket Tour. Match v. Somerset Stragglers.
Tues., " 11.	—Taunton.
Tues., " 11.	—Dr. Gow and Mr. Girling Ball on duty.
Wed., " 12.	
Thurs., " 13.	—Cricket Tour.
Fri., " 14.	
Sat., " 15.	
Fri., " 14.	—Dr. Graham and Mr. Roberts on duty.
Tues., " 18.	—Dr. Geoffrey Evans and Mr. Vick on duty.
Fri., " 21.	—Last day for receiving matter for the September issue of the Journal.
Tues., " 25.	—Prof. Witts and Prof. Paterson Ross on duty.
Fri., " 28.	—Dr. Hinds Howell and Mr. Harold Wilson on duty.

EDITORIAL.

THE tragedy of Nelson's death has evoked expressions of sympathy from far and wide, and tributes to his memory appear in our columns this month. But there is also a tribute to which we can add our contribution in the Nelson Memorial Fund, of which there has already been notice in the Press. That notice, however, has purposely been given only limited publicity, and it is to be hoped that those who held him in high esteem and saw in him a great figure in the future of thoracic surgery, will take the opportunity of helping, however little, towards assuring the education for his children which he would certainly have given them. The fund, as we go to press, has reached over £3000, but no doubt there are still many who will help to increase it. In this his home, indeed, it is pleasing to think that we are able to avail ourselves of the opportunity of so doing.

The University of London Centenary Celebrations coincided with a *Conversazione* held on July 2nd to commemorate the opening of the new Medical College. The delegates in fact were invited to attend at the request of the University, and many were among the 700 guests present. A Reception in the College Hall at 9-9.30 by Lord Stanmore preceded demonstrations in the various departments as indicated:

PHYSICS DEPARTMENT.

F. L. HOPWOOD, D.Sc. (Professor of Physics).

IN LECTURE THEATRE at 11 p.m.

Demonstration on artificial production of radio-active substances.

IN PHYSICS LABORATORY—

1. Methods of detecting and measuring weak ionizing radiations.
2. Radium appliances used in the Hospital.
3. Singing flames.
4. Experiments illustrating short-wave diathermy.
5. Periodic precipitation and Liesegang's rings.
6. Experiments with liquid air.

IN RESEARCH LABORATORY—

1. Experiments with ultra-violet light.
2. Optical illusions.

PHYSIOLOGY DEPARTMENT.

H. HARRIDGE, F.R.S., M.D., M.R.C.P. (Professor of Physiology).

IN THE LECTURE THEATRE at 10.30 p.m., a short lecture on illusions of colour.

IN THE EXPERIMENTAL LABORATORY.—Microscopic specimens of—

1. Lungs of man and various animals.
2. Blood-counts.
3. Differential blood-counts.
4. Various tissues and glands.
5. Reaction time of man.
6. Determination of horse-power of man.

IN THE RESEARCH LABORATORIES.—Demonstrations on—

1. Respiration.
2. Colour-blindness tests.
3. The singing electric arc.
4. Artificial respiration, Bragg's method.
5. Ophthalmoscope.
6. Experiments on colour vision.

BIOCHEMISTRY DEPARTMENT.

T. A. WORMALL, D.Sc. (Professor of Biochemistry).

IN THE BIOCHEMISTRY LABORATORY.—Demonstrations on—

1. The effect of pH on surface tension.
2. Gas analysis.
3. CO in tobacco smoke (reversion of spectroscope).
4. Snake venom on blood-clotting rate.
5. The tensile strength of fibrin filaments.
6. Various colour reactions.
7. Crystals under polarized light.
8. Brownian movement.

IN THE PHARMACOLOGY LABORATORY.

- Exhibits to illustrate recent advances in treatment:
1. Liver therapy in pernicious anaemia.
 - a. Vitamins.
 3. Oxygen in treatment.

IN THE PHARMACOLOGY LECTURE THEATRE.

Cinematograph film on the use of prostigmin in myasthenia gravis.

ANATOMY DEPARTMENT.

H. H. WOOLLARD, M.D., D.Sc. (Professor of Anatomy).

IN THE LECTURE THEATRE at 9.45 p.m., a demonstration of the cinematograph films:

1. Development of the sea urchin.
2. Development of the frog.
3. Circulation of the blood.

IN THE PROSECTORIUM.—Demonstration of dissections.

IN THE DEMONSTRATORS' ROOM—

- (a) Preparations of the human brain.
- (b) Tissue cultures.

IN THE X-RAY ROOM.—Demonstration of living anatomy.

IN THE RADIOGRAPHIC ROOMS.—Demonstrations of X-ray films.

IN THE PROFESSOR'S ROOM.—Phenomena of sensation.

IN THE NEUROLOGICAL LABORATORY.—Demonstration of lymphatics.

IN THE HISTOLOGY LABORATORY.—Demonstration of important phenomena of embryology.

IN THE DISSECTING ROOM.—EXHIBIT of the anatomical features of anthropoids, fossil and primitive man, and European races.

BIOLOGY DEPARTMENT.

W. A. CUNNINGTON, M.A., D.Sc. (Lecturer in Biology).

BIOLOGY LABORATORY—

1. Demonstration of pond life.
2. Rotation of cytoplasm in a leaf.
3. Demonstration of section-cutting by microtomy, paraffin wax method.
4. Demonstration to illustrate alcoholic fermentation as used in the process of brewing.
5. Museum specimens and microscopic slides.
6. Insectivorous plants; the sensitive plant.

There was dancing in the College Hall and a Buffet in the Marquee, and members of the staffs of all the teaching hospitals of London were invited. The occasion, in fact, was an official one marking the opening of the College, and thus preceded the gathering at which all old Bart.'s men will get a similar opportunity of seeing over it. We refer, of course, to the Old Students' Dinner on October 1st, when, we are informed by the Dean, the Minister of Health, Sir Kingsley Wood, will be the chief guest, and Sir Charles Gordon-Watson will be in the Chair.

The College, we should mention, will be open during the preceding afternoon for old Bart.'s men to see, now that it is completed.

* * *

Following upon the suggestion that an annual exchange of visits should be made between the Association of Surgeons of Great Britain and Ireland and the Academie de Chirurgie of France, forty French surgeons visited London at the beginning of last month. After spending the morning of Monday, July 6th, at the Royal College of Surgeons, our distinguished visitors were entertained at this Hospital in the afternoon.

Accompanied by Sir Holburt Waring and other members of the Council of the Royal College of Surgeons, they were met by the Dean at the Medical College, Charterhouse Square, where lunch was served in the College Hall. After a short tour of the Anatomy Department, the party proceeded to the Hospital and was distributed among six theatres, in which Dr. Barris, Sir Harold Gillies, Mr. Geoffrey Keynes, Mr. J. B. Hume, Mr. Rupert Corbett and Mr. S. L. Higgs were operating.

Dr. Levitt demonstrated a group of patients after treatment by X-rays for carcinoma of the œsophagus, and the visitors were then conducted to the Pathological Department, where Dr. Canti's film of glioma-cells growing in tissue culture was shown by Dr. Bland. In the Museum the specimens of historical interest had been collected and arranged by Dr. Magnus, and exhibits illustrating some of the work of the Surgical Professorial Unit were also on view.

Tea was provided by the Governors, and was served by the Nursing Staff in the Great Hall, and special mention should be made of the valuable assistance rendered by the gilled nurses and students who acted as interpreters. Our guests departed well satisfied with what they had seen, and we count it a privilege that this Hospital should have been chosen as the first to offer them hospitality on their inaugural visit.

* * *

The eighty-seventh anniversary of the birth of Sir William Osler was celebrated at a meeting of the Osler Club of London at the Langham Hotel on Monday, July 13th. Lord Horder delivered the ninth Oslerian Oration on "Subacute Septic Endocarditis", published in full in the *Lancet* (July 25th, 1936). About forty members and guests of the Club were present, with a generous proportion of Bart.'s men, including Sir D'Arcy Power and many of Lord Horder's most recent House Physicians. The orator, having traced the part played by Osler in developing the clinical picture of the disease, referred briefly to his own observations, and attempted a synthesis of the pathogenesis of the disease. He concluded with a stimulating account of the possibilities

of treatment, both curative and prophylactic. The discussion was opened by Prof. Paterson Ross, and continued by Dr. Robb-Smith, Prof. John Beattie, Dr. G. F. Brock, Prof. Leonard Findlay, Drs. J. D. Rolleston, H. W. Rodgers, Stephen Taylor, E. R. Cullinan and E. T. C. Spooner. Lord Horder, in summing up, dealt in his best "clinic" manner with the points raised by these speakers, and the meeting concluded with a characteristic speech from Dr. W. R. Bett.

* * *

We congratulate Lord Horder on his appointment as Physician-in-Ordinary to His Majesty's Household, Sir Thomas Dunhill as Surgeon, and Dr. Arnold Stott as Physician to the Household.

* * *

We note with the greatest pleasure Prof. Kettle's election as a Fellow of the Royal Society. It is a well-deserved tribute from his scientific colleagues, which will delight his many friends in the Hospital and medical world in general.

* * *

We congratulate Mr. J. P. Hosford on his election as Assistant Surgeon.

* * *

We also congratulate Dr. A. W. Franklin on being elected Assistant Physician to the Children's Department.

* * *

In view of the Old Students' Dinner being held on October 1st, the meeting of the Bart.'s Golfing Society is postponed—in all probability until the next day. An announcement, however, will appear in our next issue.

OBITUARIES.

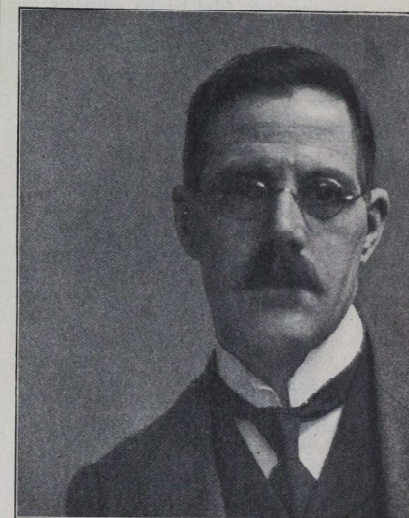
DR. W. H. HURTLEY.

HAST and present students will have heard with deep regret of the death on June 2nd of Dr. William Holdsworth Hurtley, who was head of the Chemistry Department of the Medical College for thirty years.

He was born in 1865 at Armley near Leeds. His father was a farmer, but Hurtley did not want to follow this profession and was assisted by his mother in the choice of a career. He went first of all to the Leeds Church Middle Class School, and obtained a junior and later on a senior scholarship at the Yorkshire College (now the University of Leeds), where he had a distinguished career, as he was first of his year in Greek, mathematics and chemistry. He graduated at London University with a B.Sc. in 1888. He was for a few years science master at his old school, but then

came to London as a tutor in chemistry at the University Tutorial College. He took his D.Sc. degree in 1901, and was the Medallist of the City and Guilds of London.

In 1899 he was appointed Demonstrator of Chemistry at St. Bartholomew's when Prof. Chattaway was Lecturer. He succeeded him as head of the Department in 1906, and was finally appointed Reader in Chemistry at London University in 1919. During the whole of his long association with the Medical College Hurtley endeared himself to all with whom he came in contact. His integrity, courtesy and modesty and the way in



which he would devote his whole energies to assist a colleague or student impressed everyone. He was an excellent teacher, taking great pains in the preparation of his lectures and demonstrations, with the result that his audience understood him very easily. Although his teaching duties were always exceedingly arduous, he nevertheless carried out much important research. He was diverted from pure chemistry to biochemistry by the late Sir Archibald Garrod, and collaborated with him in his work on cystinuria and alkaptonuria in a couple of important papers. He also did much work on the excretion of beta-oxylbutyric acid in diabetes mellitus. His study of the estimation of iodine in the blood led to the development of a standard method. Recently he had developed methods of preparing large

quantities of some bile acids hitherto obtainable only in minute quantities, and had succeeded in discovering and isolating a new member of this group.

Hurtley was exceedingly well read, but was especially interested in Old Testament history. He served on the General Literature Committee of the Society for the Propagation of Christian Knowledge. He had decided to resign at the close of the summer session, and had been nominated as a Governor of the Medical College. Unfortunately he fell ill in February with bronchitis and eventually died in the Hospital. The funeral service was held in St. Bartholomew-the-Less, and the church was completely filled by his colleagues and students. His three children, one son and two daughters, are all graduates of London University, and are either teaching or doing research work. To them and to his widow we offer our sincere sympathy in their great loss.

Mr. H. P. NELSON.

(An Address delivered at the Memorial Service in the Church of St. Bartholomew-the-Great by Mr. J. E. H. Roberts.)

It was less than two months ago that Nelson gave an address at the memorial service to his friend, John Melly. That address was not only a tribute to Melly, but it revealed in Nelson a man of sensitive feeling, a man who admired the devotion to duty, the disregard of personal danger and discomfort, and the deep religious feeling which Melly showed.

Nelson himself was a man of a most original mind, a tireless worker, a brilliant surgeon, who had devoted himself to the improvement of the surgery of the chest, and who at the early age of 35 had already attained a standing in his profession which in my experience was unique in so young a man.

But he had other qualities. He had a genius for friendship, and whether in this country or in America his friends were legion. They knew him as Tim Nelson. Last year, when I was in America, I was astonished that so many came to me to make affectionate inquiries as to his well-being, and that he had managed to impress his personality on so many people in so short a time.

He was a loyal colleague, and lately had begun to aid a yet younger generation of thoracic surgeons by putting opportunities of work in their way, and wisely advising them.

Nelson was not content to regard his patients as offering merely surgical problems: he followed them out of hospital into their home lives, and saw that arrangements were made for their well-being until they were able to return to work.

His mind was robust, and a few hours after the removal of his arm he was full of plans for remaking his life, and facing the problem of how to make use of his special training and experience now that he could no longer operate. At the London Hospital, where he had so recently begun a new career, at the Brompton Hospital and at Papworth, he leaves a gap which from a professional point of view it will be difficult to fill.

But at Bart.'s, where he had been trained and worked so long, it is natural that we shall miss him most of all,



Elliott & Fry.

especially for his ingenuity, his rages at injustices and wish to right them immediately, his delight in a new thing, and his interest in the details of craftsmanship. Still more it is the man whom we shall miss, and the friend who delighted in hospitality and good taste.

APPRECIATIONS.

I have been invited to add a few words to Mr. Roberts' appreciation of "Tim" Nelson. Seeing him as I did from time to time during his rare moments of leisure, I am in a good position to do so. But perhaps the word

"leisure" has been badly chosen, for amongst the snapshots of Tim that pass through my mind when I think of him at Amberley, there are very few that are suggestive of leisure. I see him stripped to the waist digging in the site of the new swimming-pool, struggling with a great railway sleeper that is to shore up an embankment, or nailing down the boards of the roof that we have constructed to the children's outdoor sleeping quarters. Only rarely can I catch a glimpse of him stretched on the grass for half an hour's sleep after a bathe in the river, or preparatory to undertaking some new adventure in building or carpentry. For to Tim everything in life came in the guise of a new adventure. What to another man might have appeared an irksome problem was for him an opportunity of finding a new and exciting way through a difficulty. The best way of doing a thing, the most efficient manner of organizing work, the most practical method of carrying out a scheme, provided grist to a brain that turned unceasingly. Without such material he would have been restless, but fortunately it was always available.

"What are you writing?" I asked him one day when I found him engrossed in the throes of composition—writing did not come easily to him.

"It is a letter to Gordon Selfridge, about his luncheon department," he answered. "The way it is run is absolutely disgraceful, and compared with similar places in America, still in the Dark Ages. If he'd only give me the job of organizing it, I could save him twenty per cent. of its costs and make it twice as efficient. But I don't know how to word my letter."

It was clear that he did not, for had Mr. Gordon Selfridge received that surprising communication there would have been little chance of Tim's earning his attention. I pointed out to him that elderly successful men in prominent positions responded better to flattery than to undiluted truth. The letter was amended.

The uncompromising honesty and passion for efficiency that were amongst Tim's chief assets provided also his greatest difficulties. He was astonished that anyone could be content with any work but the best, and in the earlier days of his career he often antagonized by his outspokenness those whom it would have been wiser to treat with diplomacy. To him nothing was worth doing that was not done well, and more than once my contributions to the various carpentry works on which we were jointly engaged were ruthlessly rejected. Although in time he learned diplomacy, he learned it with difficulty and always under a kind of inner protest. Sometimes it was the only means of obtaining certain requirements that were essential to efficiency, and therefore had to be employed, but always with the feeling that it was a pity.

His abruptness lay only on the surface, and beneath was an understanding, a kindness and a willingness to help that are seldom found in one so young. There are those who still retain in their mind's eye pictures of Tim wheeling coals to their home in a perambulator because they happened to be short of fuel, or his making their beds and preparing their food because they were ill and unable to afford the expense of a nurse, and of his coming late at night to see them when their condition did not in the least warrant an emergency visit.

In spite of the rate at which he lived, Tim always had time for putting himself out in the service of his friends and patients. Small wonder that enough seats could not be found for all those who wished to attend the memorial service at St. Bartholomew-the-Great.

K. W.

As we sit by the Fountain waiting for the time to pass we shall see him again in our mind's eye coming through the arch, his head strained a little forward and his gait quick and impatient with the distance he had to go. In his hand would be a dark brown leather case and under his arm a pile of notes or brown X-ray envelopes, and as he passed you in the Square he would give you a quick glance and a smile and be gone, leaving you with an impression of a pale face and keen eyes, of determination, and of a feeling of impatience that time was so short. But there was nothing unmethodical and no impetuous unreason about him. Few men carried common sense and method so far as he did. Why, he would even stand on a chair to put on his trousers, especially if they were black, so that the ends would not pick up dust from the floor. From such little things to the whole planning of his work there was nothing haphazard. His system of keeping notes and follow-up records was an example not only of his keenness and industry, but of the orderly working of his mind. When this was combined with such directness, honesty and sympathy with others as he had, it is easy to see why Tim was always fighting to put something right, or get something done better than it had ever been done before. He hated that ubiquitous self-satisfied complacency that shelters the inefficient behind tradition, or makes a religion of sentimentality. He would blurt out the most tactless truths with little regard to the harm it may have done him. But he took no pleasure in merely selfish criticism, and if you took him your complaints of other people he might ask you if you were sure it was not your own fault, and then give you his advice, careful, surprisingly mature, inspiring, and always kind. He would not tell you an article was bad without sitting up late into the night rewriting it with you. His help was always sincere, and he gave it

with a fresh robust generosity which brought new energy and ambition to the dulllest moments.

He used to surprise his patients, and their doctors too, by his lack of the usual soft accompaniments of good medical salesmanship, but they soon realized that they had been in the presence of a great and unforgettable man, by whose rare honesty and clear advice it was difficult not to be impressed.

After a hard day's work he would take you in his car, driving hard and always crossing if the lights were yellow, and in a few minutes, when you were standing on the edge of the swimming-bath, he would come out and dive straight in. After the swim you would go home with him to dinner, an unexpected guest, but you would always feel welcome. It was late already, but you stayed later, and by the fire after dinner he would talk of plans and schemes of how things might be done better, of mistakes he had made and seen, and how to avoid them; of clinics in many countries and what was to be learned from them. Often he would champion the less known men, and never was he impressed by mere reputation and virtuosity. It was a great privilege to know Tim, whose kindness and generosity were so spontaneous, and who lived a life full of energy and courage according to a faith which was firm. When you closed his gate and saw him wave good-bye from the top of the steps before his door you went home full of inspiration, and, when the morning came you took courage from it.

H. W. R.

GOLD IN THE TREATMENT OF THE RHEUMATIC DISEASES.

(A paper read before the Paget Club.)

MY remarks are based on a survey that I made some six years ago, of other people's work in Berlin and Paris, and my personal experience of more than one hundred rheumatic patients who have come under my care since that time and have been treated with gold.

- (A) Principles of treatment.
- (B) Indications for the use of gold salts and the selection of cases.
- (C) Choice of gold preparations.
- (D) Reactions and toxic manifestations.
- (E) Clinical results.

(A) THE PRINCIPLES OF TREATMENT.

Treatment by gold salts is a form of chemotherapy. Certain of the chemical substances injected in chemotherapy not only destroy the infecting organisms, but

hasten the metabolic processes in general and have a peculiar influence in increasing the metabolism of the mesenchymal tissues of the body and, to some extent, increasing in a selective manner the defence mechanism which is, in part, specific for each infection.

Direct histo-chemical methods have shown that chemical drugs are deposited in the cells and fibres of the connective tissue, and that the mesenchyme participates in the reaction to infection and the process of repair. The reaction to the disease process results in the resorption of the toxic products, and in subsequent fibrosis of the mesenchymal tissue.

The mesenchymal tissues form one of the most important sites in which rheumatic lesions tend to become localized—as is evidenced in the pathology of rheumatic fever, rheumatoid arthritis and muscular rheumatism. This, in brief, forms the basis for the treatment of the rheumatic diseases by metallic compounds.

Some ten years ago compounds of gold began to be used in the treatment of the rheumatic diseases. Feldt first prepared organic compounds in which the metal was combined in a complex form with carbon. These he termed "aurothio-salicylic acids". To certain of these the trade name of "solganol" and "solganol B" (Schering) were given. Feldt showed (in experimentally produced infections in animals) that these gold salts had but little action if injected at the time of the inoculation of bacteria, but that they could arrest the infection if injected some time after the original inoculation—suggesting that they acted by stimulating the defence reaction rather than by a direct bactericidal effect.

In 1926 clinical trials were carried out in Germany by Feldt, Umber and others on the action of these gold salts in the rheumatic diseases. In France, in 1929, Forestier published his first report on the results with "alochrysin lumiere", a French gold preparation. Since then, gold has come to be used widely in the therapeutics of the rheumatic diseases.

(B) INDICATIONS FOR THE USE OF GOLD SALTS.

Under the popular general term "rheumatism" are included substantially different diseases. Thus, such widely different conditions as rheumatic fever, lumbago, myalgia, sciatica and chronic joint conditions—rheumatoid arthritis, osteo-arthritis and gout—are found classified as rheumatism. The careful choice of cases suitable for gold treatment is important, and, as a basis for selection, I shall refer you to the nomenclature which some of us prepared, and which has been accepted by the Committee on Chronic Rheumatic Diseases (of which I am a member) set up by the Royal College of Physicians:

- (a) Rheumatic fever—acute and subacute.
- (b) Chronic or subacute arthritis.
- (c) Non-articular rheumatic affections, such as fibrositis, panniculitis and neuritis.

It is to the chronic or subacute forms of arthritis to which particularly I would draw your attention. Two great types of chronic arthritis form the essential basis of this classification.

One is the proliferative or ankylosing type—the form usually known in this country as the *rheumatoid type*. The essential characteristic anatomical change is a proliferation of the synovial membrane and of the perichondrium of the articular cavity, and formation of granulation-tissue in the form of a thin pannus, creeping over, invading and replacing joint cartilage, leading to fibrosis and joint deformity. This type may be divided in accordance with the presence or absence of known or specific aetiological or associated factors.

The other is designated the degenerative or non-ankylosing type, being generally known as the *osteo-arthritis type*. The primary pathological change is the degeneration of the articular cartilage with exposure of the underlying bone, usually affecting areas of contact subjected to greatest strain, weight or movement. Sometimes this is associated with compensatory overgrowth of cartilage or bone on the outer areas of opposing articular surfaces, forming lipping or osteophytes. It may be of known aetiology, secondary to trauma, congenital malformations, or to arthritis of the rheumatoid type, or associated with disordered metabolism, as the climacteric, gout, hæmophilia, or associated with organic disease of the nervous system, as in Charcot's joints, or of unknown aetiology, as in the so-called senile variety.

The main, if not the only, suitable cases for treatment are included in the rheumatoid type of arthritis. This is subdivided as follows:

Rheumatoid type:

a. Specific causation: Known aetiology.

Gonococcal, tuberculous, syphilitic arthritis and arthritis following other specific infections—such as scarlet fever, dysentery, pneumonia, etc.

b. Non-specific causation: Unknown aetiology.

(i) With known associated factors:

- (a) "Focal" arthritis, including so-called "multiple infective" and metastatic arthritis—typical foci for which are the teeth, tonsils, nasal sinuses, urogenital tract (such as pelvic infections), gastro-intestinal tract (gall-bladder), etc.

The various forms of streptococci and staphylococci may be considered as the more common of the infecting organisms.

(b) "Still's disease."

(ii) With no known associated factors:

(a) "Rheumatoid arthritis." That form of chronic, slowly progressing, polyarticular arthritis, which occurs much more frequently in women than in men, and commonly manifests itself in women in the third and fourth decades of life, which may be arrested in any of its early stages, or continue with exacerbations and remissions for years, finally leading to severe and permanent crippling, and—

(b) "Spondylitis-ankylopoetica," which probably is but one form of the rheumatoid type, but one which (on account of its localization) shows certain pathological changes which do not justify its inclusion as a subdivision of rheumatoid arthritis.

In my opinion, the presence of the rheumatoid type of arthritis—in any of its forms or in any stage of its evolution—is a strong indication for gold treatment. My own series of cases includes young women suffering from the first or early stage of rheumatoid arthritis; the second or "active" stage, in which, in addition to painful and tender, swollen joints, the skeletal muscles have become wasted and joint deformity has commenced; and the third stage, in which the disease appears to have become arrested, and the signs are, in great part, the residua of past infection, and the form which appears at about the time of the menopause—in which in addition to swelling of the knees, other mesenchymal changes, such as panniculitis, varicosities, etc., may be marked (in this group there are dangers to which I will refer later), and spondylitis-ankylopoetica in young men.

Contra-indications.

Unsuitable cases.—Any form of the osteo-arthritis type of arthritis, such as osteo-arthritis of the hip and spine in men, and osteo-arthritis of the knees and hands in (as Heberden's nodes) middle-aged and elderly women, are in my opinion definitely unsuitable for treatment, as can be understood from the principles of treatment and pathological changes in the joints to which I have referred.

Although, in common with others, I have treated patients showing the articular manifestations of rheumatic fever, and those with persistent muscular rheumatism, which appears to be associated with an infective focus, I do not consider that, in the present state of our knowledge, gold treatment is indicated in these cases.

Peculiar Contra-indications.

The presence of disease conditions, such as Bright's disease, diabetes, congestive heart failure, blood disorders (such as hæmophilia), are absolute contra-indications.

The presence of marked debility, raised blood pressure and hepatic disorders make very careful clinical and laboratory investigation necessary before treatment is instituted.

Selection of Patients.

Before starting treatment, in addition to eliciting a careful history and full clinical examination, it is my routine to take an X-ray of the hand, and of any particularly affected joint, to examine the urine for albumen, and to make a complete blood-count and blood sedimentation rate.

The blood sedimentation rate is of particular value, both as an aid to diagnosis, and in following the course of the disease and the response to treatment. Unfortunately, for the diagnosis and treatment of the rheumatic disease, we have not as yet any specific reaction comparable to the blood Wassermann test in syphilis. The blood sedimentation rate, however, although a non-specific reaction, is of value both in diagnosis (particularly in the differentiation of the rheumatoid and the osteo-arthritis types of arthritis) and in prognosis. In general, in every patient with the rheumatoid type of arthritis, in its active stages, the blood sedimentation rate is permanently raised (often 25-80 mm. for the first hour, compared to the normal 3-8), whereas in the osteo-arthritis type, when not associated with some secondary infection, it is within normal limits. But the importance of this test is of much greater value as a guide to prognosis, the course of the disease, and the success or failure of treatment.

The sedimentation rate in my cases is always taken immediately before treatment is started, and then once a month until treatment ceases. In practice, if in an individual patient the rate remains raised, or falls only slightly and does not return to normal, the disease must be considered as active and progressing. In gold treatment, if at the end of six to eight weeks the sedimentation rate has not fallen, the treatment must be considered to have had as yet but little effect. If the rate, even if originally very rapid, tends progressively to become slower, it indicates that the disease process is becoming arrested, and suggests that the treatment is effective. The disease must not be considered arrested and the patient "cured" until the sedimentation rate has returned to normal, and remained within normal limits for three to six months from the time treatment has been discontinued. To achieve this,

three or more courses of treatment may have to be given, and the period of observation may be two years or more. If in routine practice after three or six months, even in the absence of clinical signs or symptoms, the blood sedimentation rate is found to be rising, a recrudescence of the disease must be suspected and treatment must be resumed. It is a failure to appreciate these points which has led to the lack of success obtained by some who apply gold treatment. Only too frequently treatment has been discontinued too soon.

C. CHOICE OF GOLD PREPARATIONS.

The only active salts appear to be those which contain a high proportion of gold combined with a sulphur radical. They can be injected either in an aqueous solution or suspended in oil. To be effective, they must be given intramuscularly, and not, as sometimes advertised, orally.

The preparation which I use is "solganol B" (aurothio-glucose), an oily suspension which is said to be absorbed more slowly than the watery forms of gold salts. Jacques Forestier uses allochrysin (an aurothiopropanal sulphate of sodium). Myochrysin and myoral are other preparations in clinical use.

The object of treatment, as I have already said, is to enable the resistance of the body to be gradually built up so as to overcome the infection. The dosage is regulated according to the activity of the disease process at the time of commencing treatment. Generally, in febrile cases with acute clinical signs a larger initial dose is given than in long-standing, seemingly inactive cases.

The method of treatment is to carry out a regular series of injections at certain intervals, during a period varying from six months to two years, the principle being similar to the treatment of syphilis with arsenic or bismuth. The dosage that I now employ is to give an initial dose of 0.01 gm. of solganol B oleosol, and then, after a week's interval, 0.05 gm., and then, at weekly intervals, 0.1, 0.1, 0.2, 0.25. The 0.25 gm. injection is repeated eight times, until the end of twelve weeks, a total of 2.5 gm. have been given. This constitutes one course of treatment. After an interval of four to eight weeks a further course of similar dosage is given. This dosage is smaller than that which originally I used, and to which I refer in my book (*The Rheumatic Diseases*). Reactions are less common with the smaller dose, and the clinical results are better.

If a definite reaction, lasting more than twenty-four hours, follows a certain dosage, there should be no increase in dosage at the subsequent injection. In

some cases the interval between the injections may have to be regulated by the reaction produced. No further injection should be given until any reaction produced by the preceding one has subsided.

The effect of treatment must be judged (in addition to clinical observation) by the blood sedimentation rate—taken at regular intervals. If after six or eight weeks there is no reduction in the sedimentation rate, larger doses may have to be used, or, in rare instances, some other gold preparation employed.

D. REACTIONS.

To obtain good results from the treatment, it is not necessary to get any clinical reaction. Reactions, however, occur, and may be classified as (1) Local, (2) Focal, and (3) General.

In my experience, local reactions do not occur if the local site is massaged for a short time immediately after the injection.

Focal reactions are uncommon (less than 5% of cases) if the smaller dosage is used. They consist in a transient increase in the pain and swelling of the affected joints, lasting some twenty-four hours, and are usually relieved by aspirin. They do not indicate any alteration from the routine dosage.

General reactions are also uncommon. They consist in increase of pain and a rise of temperature of 1-2° F. If general reaction occurs, it is my practice not to increase the dose at the subsequent injection.

Both focal and local reaction tend to become less frequent as treatment continues.

Toxic Manifestations, or Complications of Gold Therapy.

These are very important, unfortunately not uncommon, and may be serious and even fatal. These may be divided into effects on—

- (a) The skin and mucous membrane.
- (b) The liver and the kidneys.
- (c) The central nervous system.
- (d) The hæmopoietic system.

The complications have proved fatal only when the hæmopoietic system has been involved.

(a) *Skin reactions* are common, occurring in some 5-10% of my cases. They consist of generalized erythematata, papular eruptions, and exfoliative dermatitis. They may occur at any time during the treatment. In one case of my own, a severe papular eruption occurred after the second injection. In another, a severe exfoliative dermatitis occurred some six weeks after the first course of treatment was finished.

Early and localized skin reactions do not usually indicate cessation of treatment. Generalized reactions,

in my opinion, always indicate a temporary pause. The exanthemata usually disappear within a few days. (Asmolsyn, adrenalin and hypophysin seems to be a useful antidote: 1 c.c. is given on the appearance of the first toxic signs.)

Reactions in the mucous membranes usually affect the mouth: a metallic taste is a warning symptom, which, when ignored, has been followed by a severe ulcerative stomatitis. Small erosions in the buccal mucous membrane, conjunctivitis and diarrhoea (which may be due to a reaction of the mucous membrane of the bowel) have occurred in my own cases. Treatment should always be discontinued.

In the hope of preventing skin reactions, calcium gluconate may be given—10 c.c. of a 10% solution with each gold injection—and when such reactions have occurred, sodium thiosulphate given intravenously.

(b) *The liver and kidneys.*—Albuminuria is detected not infrequently in the routine weekly examination of the urine. I always stop treatment until the albuminuria has disappeared, and discontinue treatment permanently if casts and red cells are present.

(c) *The central nervous system.*—In one of my cases complete 8th nerve deafness occurred, which still persists two years later.

(d) *The hæmopoietic system.*—The most serious complications affect the hæmopoietic system. Purpura hæmorrhagica and agranulocytosis and aplastic anaemia are serious and, in my own experience, have occurred and proved fatal.

I have the records here of two of my cases.

The first is that of a woman æt. 42, suffering from an early active rheumatoid arthritis. After five injections of solganol B (0.65 gm. total) she developed suddenly a sore throat, a temperature of 102° F. and a faint generalized erythema. Her white cell-count fell to 2000 per c.mm., with an eosinophilia of 7%. Following blood transfusion and pentanucleotide injections, the white cell-count gradually returned to 5000 per c.mm., and she has now (six weeks later) made a satisfactory recovery.

The other case is that of a woman, æt. 52, suffering from a mild rheumatoid type of arthritis, associated with the menopause. After four weekly injections of solganol B (0.65 gm. total) she developed a diffuse hæmorrhagic purpura, and subsequently a right pneumonic consolidation and a subarachnoid hæmorrhage. She died, and a careful post-mortem examination was made for me by Dr. Barnard, which will be reported elsewhere. In addition to multiple gross hæmorrhages, minute hæmorrhages were visible in all the small joints of the body. There was also evidence of syphilitic aortitis.

Such accidents are as likely to occur in seemingly mild cases after only one or two injections as in severe cases after two or three series of injections. It is only by careful clinical observation, coupled with routine blood sedimentation-rate tests, urine tests, and blood examinations (to watch especially for a diminution in the total white cell-count and an increase in the eosinophil percentage—usually to 7% or over), that one can be forewarned.

In my experience, it has been in the seemingly most unlikely cases that these unpleasant complications have arisen. It is therefore important to warn both the patient and the general practitioner of the possibility of their occurrence, and also never to leave the injections to be given by a nurse.

(E) CLINICAL RESULTS.

If gold treatment is applied in carefully selected cases the clinical results are good. Clinical improvement usually shows itself by an early relief of pain on movement and at rest, a gradual increase of painless movement of the affected joints, and, later, a diminution of the joint swelling. Also, there is seen a gradual improvement in the general health of the patient, an increase in appetite and in strength, an improvement in colour, and a gain in weight. The temperature, if raised, tends to settle, and there is an improvement in the pulse-rate and the blood-count. The blood sedimentation rate gradually returns towards normal, and in certain instances I have had radiographic evidence of an increase in bone density. The extent of the improvement naturally depends largely on the condition of the patient at the commencement of the treatment.

In early cases, in the first stage of the rheumatoid type of arthritis, a complete "cure" may follow with full restoration of function. If treatment is started when the disease has already reached the second or third stage—when pannus formation, cartilage erosion, periarticular fibrosis and deformity has already occurred—the results necessarily are less spectacular. The infective process may be arrested and pain and joint swelling relieved, but the destroyed joints cannot be repaired by means of gold treatment alone.

The hospital patients under my care have usually been confined to bed during the period of treatment. Chemotherapy was combined with rest, adequate diet and physiotherapy. In several instances gold therapy proved an invaluable prelude to orthopaedic treatment.

There are so many factors to be taken into consideration that a presentation of detailed statistics will not, I think, help you in visualizing the results.

In general, of my cases, half have responded well to


treatment, and the "disease" has become arrested. The restoration of function has been dependent upon the original amount of joint damage. To achieve these results, the length of the treatment varied from three months to two years.

Exacerbations have been uncommon when a full course of treatment has been given. It is my impression that patients with spondylitis ankylopoetica do not respond so well as those with true rheumatoid arthritis. Also, in the rheumatoid type of arthritis that occurs about the time of the menopause—in which mesenchymal changes (such as panniculitis and varicosities) are marked—and in which the blood sedimentation rate may be only slightly raised or even normal, complications are more frequent than in any other type.

In conclusion, my personal experience of gold treatment has led me to believe that in selected cases, particularly those of the rheumatoid type of arthritis, a course, or several courses, of gold injections, when given under strict medical supervision, controlled by frequent blood examinations and associated with other general dietetic and physiotherapeutic measures, is a very valuable method of treatment.

FRANCIS BACH.

FURTHER DEVELOPMENTS IN GAS AND AIR ANALGESIA IN LABOUR.

N May, 1934, there was published in the *St. Bartholomew's Hospital Journal* a brief account of our work at the Wellhouse Hospital, Barnet, on gas and air analgesia in labour. Further developments of this work will, I think, be of interest to St. Bartholomew's men, because it was largely owing to the pioneer work of a St. Bartholomew's anaesthetist, Mr. Boyle, with gas and oxygen analgesia in labour that gas and air came into use at all.

American anaesthetists showed, about 1917, that good results could be obtained from the use of *gas and oxygen* in labour; pain was relieved without danger to mother or child and without hindrance to the normal course of labour. In this country we were greatly indebted to Mr. Boyle for calling attention to the great advantages gas and oxygen had over all other methods for use in maternity work. Gas and oxygen indeed was so successful after its introduction into England and became so generally employed by well-to-do women, who could afford to have an anaesthetist present at their confinements, that this led to the demand that something more should be done for poorer women. This demand was voiced very strongly by a body of people who were

desirous of improving our maternity services, and who had collected money for research work to be done, and who had formed what is now known as the National Birthday Trust Fund.

Their first experiments were made with chloroform capsules—small crushable glass capsules containing Mxx of chloroform which were crushed and placed under a mask when necessary, the mask being given to the patient, so that she could inhale from it chloroform vapour when in pain. Very extensive experiments were carried out with these capsules and good results obtained, although many obstetricians and anaesthetists were not altogether in favour of the use of chloroform in any form in maternity work. This work, however, attracted much attention, and led to a discussion being held on the whole question of relief of pain in midwifery by the Association of Anaesthetists in October, 1933. It was at this discussion that Dr. Minnitt, of Liverpool, showed a machine that he had devised for the *self-administration* of a mixture of nitrous oxide and air.

Nitrous oxide and air was a compromise between nitrous oxide and oxygen and pure nitrous oxide gas, because it was felt that nitrous oxide and oxygen could never become available for all women because of technical difficulties, and nitrous oxide by itself was not altogether safe. What Dr. Minnitt desired to obtain was some method of giving relief in labour which could be used by anyone, because such a large number of confinements in this country are attended only by midwives, and even many women who engage a medical practitioner cannot afford to pay for the attendance of an anaesthetist as well.

Dr. Minnitt adapted the McKesson nitrous oxide apparatus for his use by making air-holes in the machine so that the patient inhaled a mixture of nitrous oxide and air of such strength that she never became unconscious. This apparatus was automatic in action, so that the patient could administer nitrous oxide and air to herself. Dr. Minnitt's method became known as *self-administered gas and air analgesia*.

THE METHOD EMPLOYED.

She is given a rubber face-piece and told to apply this closely to her face and inhale from it when in pain, laying it aside when the pain passes away. Since she never loses consciousness she is able to do this with ease. Dr. Minnitt started his experiments at the Liverpool Maternity Hospital in the autumn of 1933, and shortly afterwards at the Wellhouse Hospital; we co-operated with him by using gas and air analgesia in the maternity wards. The combined results of these two experiments were given in May, 1934, at the Royal

Society of Medicine and attracted much attention. Since that time many other hospitals have adopted the use of gas and air analgesia, and the National Birthday Trust Fund has given great assistance so that further experiments with this method have been made.

It was claimed that gas and air analgesia had certain advantages over all other methods of giving relief in labour. It could be used by anyone. The patient was given satisfactory relief from pain, although the absolute relief obtained with gas and oxygen could not be promised in every case. It was absolutely safe to both mother and child, and labour was not prolonged from its use.

Gas and air analgesia began to come into general use in hospitals and nursing homes, but there was a regulation made by the Central Midwives Board that the use of anaesthetic agents was outside the province of the midwife and this regulation hindered its extended use. The National Birthday Trust Fund then made an appeal to the Central Midwives Board to alter their regulation, and after some discussion it was decided that the British College of Obstetrics and Gynaecology should carry out an investigation of various methods of giving relief in midwifery to see what method or methods might be safe for midwives to use, the cost of this investigation to be financed by the National Birthday Trust Fund. A large number of patients in different hospitals were given analgesia in labour by various methods and a careful study made of the results, and a report has recently been issued by the College. As a result of this investigation the College are not in favour of the use of chloroform, but they have decided that the investigation has proved that the administration of gas and air by the Minnitt apparatus is safe for use by midwives in hospital provided that a recent examination by a medical practitioner has revealed no contra-indication thereto.

The College find that—

(1) Gas and air analgesia is a safe method of giving relief in labour, that labour is in no way prolonged and there is no increase in forceps deliveries and that there is no harm to the baby, and they recommend its use for midwives in hospital, but they advise these midwives should have a special training before using gas and air analgesia.

(2) Gas and air analgesia was found to give satisfactory relief from pain in a high proportion of cases, although they recommend that one other responsible person should be present in addition to the midwife in charge of the case.

(3) Criticism was made as to the bulk and weight of apparatus and to its mechanical unreliability; and the initial cost of the apparatus and the nitrous oxide gas are thought to be a handicap to its general use.

This report of the College of Obstetrics and Gynæcology is so important that it is worth our while to study it in detail.

1. *Safety*.—It is indeed pleasant to read that the administration of gas and air is considered safe for use by midwives in hospital, because the whole future of the relief of pain in midwifery depends on the midwife being allowed to make use of some approved method for the benefit of her patients. The College do not at present advocate midwives being allowed to use gas and air analgesia for their own patients in domiciliary midwifery, but have suggested further investigation shall be carried out to see whether this very important step can be taken. It is, of course, of the utmost importance that this further investigation shall be made, because both in hospital and in private practice the midwife is occupying a more important position, and there are many thoughtful people who consider that if we are to have safer and better midwifery we must leave the cases more and more to the midwife. The midwife and the midwife alone can give sufficient time to the case, and it is just this matter of time that is so all-important.

2. *Training of midwives in use of gas and air*.—The recommendation of the College that the use of gas and air should be restricted to those midwives who have been specially trained in its use seems a reasonable precaution, but I feel that they are unduly pessimistic in their assumption that it requires considerable experience to learn the essentials of obstetrical analgesia. After nearly three years of personal experience I feel that there is really nothing in the technique of administration of gas and air or in the care of the apparatus which cannot be learned by any intelligent layman in ten minutes, but it does require experience to know just when to start the gas if the best results are to be obtained.

3. *Must the midwife have an assistant?*—The report suggests that one other responsible person in addition to the midwife should be present when gas and air is being used, and in my opinion no one can fill this place better than an intelligent relation or friend in domiciliary midwifery. During the time I have been using gas and air in my private practice I have made a special point of getting some female relation into the room, to see that there is no deception about the analgesia, as it were, and I have got this relation to take charge of the administration, change the cylinders and generally look after the machine. I have never had any difficulty when I have done this, and I have found that it is a plan which works well, and the presence of a relation in the room often calms an excitable or restless patient.

4. *Apparatus*.—The College criticize the bulk, weight

and cost of the apparatus, and we must admit that gas cylinders are heavy, apparatus is costly and the price of gas no small consideration, but we need not despair; with a little ingenuity all difficulties can be overcome.

We have had in use at the Wellhouse Hospital and at the British Hospital for Mothers and Babies an apparatus consisting of a cheap metal stand holding two gas cylinders joined by a coupling, and on to this coupling the actual mechanical part of the machine is attached by means of one nut and screw, so that it is only the work of a few moments to separate machine from stand and cylinders. The apparatus is designed for domiciliary midwifery and we consider that as gas cylinders can be hired at very reasonable terms, the cylinders and stand can be sent to the patient's house before the confinement is due and the midwife need only bring the machine, which weighs only a few pounds and is easily portable. By carefully screwing tight all joints much gas can be saved, and in order to reduce the cost of gas we have recently been trying the value of partial rebreathing on gas and air machines which seems to work well: we use a 500 c.c. rebreathing bag; no ill effects have been observed and much gas is saved.

As regards the cost of the apparatus this has already been reduced, and there are, in addition, two new gas and air machines on the market costing £12 12s. and £11 11s. respectively, and there can be little doubt that others will follow.

5. *Relief of pain*.—The British College of Obstetrics and Gynæcology's results are not so satisfactory as regards relief from pain as those obtained at many hospitals; they find that 77% of cases were successful in a series of 3589 cases.

At the Wellhouse Hospital and the British Hospital for Mothers and Babies we have obtained a higher percentage of success, but then our nursing staff, who now take charge of most of the cases, have taken infinite pains to obtain good results, though from our own experience we can understand why failures do occur and what are the commonest causes of these.

Success or failure with the gas and air depends partly on the method, partly on the patient, partly on the administration, partly on the machine. With two human and one mechanical factor there is much opportunity for error, and if we study these factors in detail we shall see why some failures do occur.

CAUSES OF FAILURE TO OBTAIN ADEQUATE RELIEF FROM PAIN: THE METHOD ITSELF.

A. Gas and air analgesia consists in administering to the patient, or rather persuading the patient to administer to herself whilst in pain, a mixture of nitrous oxide and

air, and in order to obtain absolute safety, it is necessary that the percentage of nitrous oxide in air shall never be sufficient to be in any way harmful to the most susceptible patient, so that it will be obvious that unless this percentage be increased for the least susceptible patient, this latter will receive insufficient gas.

Because the object is to produce some method of giving relief which can be made use of by persons having no knowledge of anaesthesia, this varying of percentages is just what cannot be done, so that the least susceptible patient has to put up with her pain; but failures from this cause should not exceed 5%. Certainly a way out of the difficulty can be found by means of pre-medication with sedative drugs, but the British College of Obstetrics and Gynæcology were not out to test the value of pre-medication; so we must forgive them for a certain number of failures in their attempts to obtain relief with gas and air alone.

THE PATIENT.

B. In analgesia, as in all matters medical, the patient is the most difficult problem, and I think that many physicians have retired from practice, not because they were tired of medicine, but because they were tired of patients. So with analgesia—it is of no use our being satisfied with the amount of relief given if the patient is not.

I recently gave gas and air for twenty-four hours to a somewhat temperamental young woman, who started her gas with the first pain, took the machine to bed with her, taking a few breaths with each pain, sleeping soundly between them until the second stage was reached, when she gave herself almost a continuous analgesia until the baby was born. I felt well satisfied that this had been one of my best cases, but not so the patient, who considered gas and air analgesia of no value. I have become wiser since, and always allow the patient a few good pains before starting the gas, and I think it is a good plan to let the patient know what severe labour pains are like.

Then we have the patient who will never be satisfied; she is determined to have full anaesthesia with forceps delivery, and she tells us she has not the strength to hold the face-piece on her face, and if it is held on for her will not breathe but tells us she is suffocating. These patients can sometimes be managed by a particularly gifted nurse (one of our Sisters can do it), but must as a rule be numbered among our failures. Some patients will not co-operate at all and simply refuse to breathe in the gas, and with these patients very little can be done.

ADMINISTRATION.

C. The method of breathing-in the gas and the time of starting the administration are two important points to consider if failures are to be avoided, and if the administration is started rather late in labour when the "pushing-down" stage has been reached, for example, difficulty may be experienced in persuading the patient to take several deep breaths of gas before "pushing down", and if this is not done, little relief can be expected. The patient should always be made to take four or five breaths of gas and then push down—more breaths and push again, and so on.

Another common cause of failure is an ill-fitting face-piece, or the application of the face-piece to the face in the wrong way.

THE PERSON IN CHARGE OF THE ADMINISTRATION AND THE MACHINE.

D. These two factors must be considered together.

The College consider that "as the apparatus is now constructed, leakage may occur in many places unless constant attention is given to minor adjustments", but, as with all things mechanical, good results depend on careful usage.

The apparatus used by Minnitt and tested by the British College of Obstetrics and Gynæcology is an adaptation of the McKesson nitrous oxide apparatus. It is an extremely simple machine, and if reasonable care is taken in its use, mechanical troubles will be few. At the Wellhouse Hospital and at the British Hospital for Mothers and Babies, little trouble has been experienced with apparatus.

In a mechanical age, when we are all used to complicated machinery in everyday life, the gas and air machine presents no terrors to its users, and a midwife who can care for an Austin Seven, or a woman who can look after a vacuum cleaner, can certainly be trusted to manage a gas and air machine. The user and not the machine is the important factor, and it is our experience that if the administrator is careless and allows the gas cylinders to become empty without noticing this or fails to screw them firmly on to the apparatus, bad results will be obtained, while the good midwife obtains good results.

The particular findings and conclusions in the British College of Obstetrics and Gynæcology report, themselves of importance, are something of a mild triumph for the supporters and advocates of gas and air analgesia, but the really outstanding feature is that there has been a report at all, that the leading authoritative obstetrical body in this country has realized that advocates of analgesia had a case to test and have tested it.

Ever since the day when Simpson first showed that the pains of labour could be alleviated by means of chloroform, we have been practically at a standstill because Simpson's teaching was misunderstood and is misunderstood to-day, as the British College of Obstetrics and Gynaecology's report on chloroform analgesia very well shows.

Obstetrical attendants have never, as a whole, learned the art of chloroform analgesia, with the result that many sad accidents have occurred, and the use of anæsthetic agents in small doses during labour has fallen into some disrepute. The investigation has been an extremely severe one, but has justified the claims of the "analgesists" that relief could be given in labour with safety, and although gas and air is by no means perfect, it does at least enable us to make much headway in solving a problem which has baffled us for so long.

JOHN ELAM.

STUDENTS' UNION.

CRICKET.

ST. BARTHOLOMEW'S HOSPITAL v. MIDDLESEX HOSPITAL and Round Inter-Hospitals Cup.

Played at Winchmore Hill on June 10th. Won by 161 runs. Winning the toss Mundy batted first on a true, hard wicket. Heyland and Johnstone again gave us a good start, though both were at times lucky. At 63 Heyland was bowled for a pathetic and valuable 26. Wheeler joined Johnstone, but at 83 the latter was bowled by Skea, who during this over had the misfortune to strain a muscle which prevented him taking any further part in the match. Johnstone scored 48.

Brown, North, Wheeler and James were quickly in and out, and lunch and the President, Mr. Boyle, arrived with the score 102 for 6. After lunch Maidlow and Harmer brought about a recovery, adding 23 before Maidlow was caught off a full toss for 32. Harmer left at 180 for a hard hit 44, which included 7 fours. Hunt then saw the ball incredibly clearly and hurried the score along, making 63 and being undefeated when Mundy declared at 280 for 9.

Middlesex were given 20 minutes' batting before tea and these proved disastrous to them. They lost Thompson their Captain, who last year made a century against us, for 0, Harmer holding a catch in the slips off James in the second over. Riddell then touched one swinging away from Mundy and Hunt made sure of it behind the wicket—7 for 2. Mundy and James continued to bowl steadily and wickets fell, mostly to James, who in all took 4 for 41. Harmer then relieved Mundy and captured 3 for 8.

Middlesex were all out for 99, and so we reversed our defeat of last year.

ST. BARTHOLOMEW'S HOSPITAL v. ST. MARY'S HOSPITAL. Semi-final Inter-Hospitals Cup.

Played at North Wembley on July 1st. Won by 109 runs. The Hospital batted first on a slow, wet wicket, and lost Johnstone with only 1 run scored. Brown and Heyland batted carefully and well, but Morrison was swinging the ball a lot, keeping an excellent length, and it did not surprise us when he was rewarded with another wicket, clean bowling Heyland for 14. Brown meanwhile was playing an invaluable innings, one which we've waited for all the season. Wheeler stayed with him, scoring a patient 23 before being bowled by one that didn't rise. Maidlow and Grant got in front of straight balls when each had looked set, and then Brown was out for 60. 128 for 7. This certainly didn't seem good enough. Hunt, who hit everything, and Mundy then made things look better, and put on 68 before Hunt was bowled for 38. The innings closed for 200, and we went into the field keen, but rather wishing we'd been able to make more of the golden opportunity of beating St. Mary's without Owen Smith.

Sheersone played a stroke at Mundy's second ball for which he must still be kicking himself, and we had their most dangerous man back in the pavilion for 0 runs. Mundy continued bowling splendidly, and was rewarded at 37 when Grant held Morrison at mid-off. The fielding was excellent, nothing being given away, and the Hospital got on top thanks to two admirable catches by James. These were the most two wickets and the score was 54 for 4.

Rutherford was bowling extremely well, and Mundy kept going at the other end. Wickets fell regularly, and St. Mary's were all out for 0.

Mundy took 5 for 45, and Rutherford 4 for 18. Both bowled grandly.

The final against St. Thomas's Hospital will commence on September 5th, and will be played to a finish.

HOCKEY CLUB.

The Annual General Meeting of the Hockey Club took place on Friday, May 15th, 1936, and the following elections were made:

President. Dr. A. E. Gow.
Vice-Presidents. T. H. Just, Esq., Dr. Geoffrey Evans, Dr. J. H. Hunt, H. B. Stallard, Esq.
Captain of 1st XI.—A. D. Messent.
Hon. Sec. of 1st XI.—R. Heyland.
Hon. Match Sec.—M. F. Moore.
Captain of 2nd XI.—P. Jayes.
Hon. Sec. of 2nd XI.—F. O. Evans.
Captain and Hon. Sec. of 3rd XI.—J. S. Lillierap.
The following Honours were awarded for the season 1935-36:

W. A. Oliver.	A. H. Masina.	E. J. Griffiths.
A. D. Messent.	I. M. Lockett.	T. M. C. Roberts.
R. Heyland.	C. Perkins.	R. A. House.
J. R. Winter.	M. E. Moore.	

LAWN TENNIS CLUB.

ST. BARTHOLOMEW'S HOSPITAL v. GUY'S HOSPITAL.

On Thursday, June 10th, at Honor Oak Park, St. Bartholomew's Hospital were beaten by Guy's Hospital in the second round of the Inter-Hospitals Cup by 3 matches to 9. We unfortunately won only one out of six singles; E. Corsi, however, had an excellent match against H. G. N. Cooper before he was eventually beaten 2-6, 5-7.

In the doubles Guy's Hospital only required to win four of the remaining nine matches, which they managed to do with the loss of only two matches. Results:

E. Corsi lost to H. G. N. Cooper, 2-6, 5-7; W. K. Frewen lost to K. Chartkavmj 0, 6, 2-6; P. J. Hardie lost to E. P. O. Watson 1-5, 4-6; G. L. Way lost to H. R. S. Harley 2-6, 3-6; R. C. Witt lost to R. S. Stevens 1, 6, 3, 6; J. D. Waring beat W. Hughes 6-2, 6-4; E. Corsi and W. K. Frewen lost to H. G. N. Cooper and H. R. S. Harley 2-6, 5-7, and also beat R. S. Stevens and W. Hughes 6-4, 8-6; P. J. Hardie and G. L. Way lost to K. Chartkavmj and E. Watson 3-6, 4-6, and also lost to H. G. N. Cooper and H. R. Harley 4-6, 1-6; R. C. Witt and J. B. Waring lost to K. Chartkavmj and E. Watson 4-6, 2-6, and also beat R. S. Stevens and W. Hughes 6-2, 8-6.

ST. BARTHOLOMEW'S HOSPITAL v. CHISWICK PARK B.

At Winchmore Hill on Saturday, June 20th, St. Bartholomew's Hospital were beaten by 3 matches to 5 by Chiswick Park B. Results:

W. K. Frewen and J. J. Slowe beat 1st pair 6-3, 5-7, 6-2; lost to 2nd pair 4, 6, 4, 6; lost to 3rd pair 4-6, 3-7.
R. C. Witt and J. B. Waring beat 2nd pair 7-5, 0-6, 8-6; beat 3rd pair 6, 3, 6, 4.
G. L. Way and B. Acharya lost to 1st pair 4-6, 6-8; lost to and pair 6-4, 2-6, 3-6; lost to 3rd pair 4-6, 7-5, 7-9.

CHISWICK PARK v. ST. BARTHOLOMEW'S HOSPITAL.

On Wednesday, June 24th, at Chiswick Park the match was left unfinished, Chiswick Park were leading by 4 matches to 2. Results:

P. J. Hardie and R. I. G. Coupland	lost to W. Evans and K. Smith 1-6, 2-6, and also beat Turner and Robertson 9-7, 6-4;
B. Alexander and H. Knowles	lost to W. Evans and K. Smith 2-0, 5-7, and also lost to M. Stewart and L. Hare 3-7, 1-6; G. L. Way and B. S. Acharya
lost to M. Stewart and L. Hare	6-3, 6-8, 6-8, and also beat Turner and Robertson 6-3, 6-3.

STAFF COLLEGE v. ST. BARTHOLOMEW'S HOSPITAL.

On Saturday, July 11th, the Staff College beat the Hospital by 5 matches to 4 after a most enjoyable encounter. Results:

G. L. Way and J. B. Waring	beat G. O. Jameson and G. C. Evans 6-2, 2-6, 6-4, lost to I. R. Campbell and A. J. Capel 4, 6, 3-6, and beat H. P. Mackley and G. K. Bourne 6-4, 6-3.
H. Knowles and B. Alexander	lost to G. O. Jameson and G. C. Evans 2-6, 1-6, beat I. R. Campbell and A. J. Capel 6-4, 8-6, and beat H. P. Mackley and G. K. Bourne 6-3, 6-2.
R. H. Dale and R. L. Benson	lost to G. O. Jameson and G. C. Evans 0-6, 0-6, lost to I. R. Campbell and A. J. Capel 1-6, 1-6, and also to H. P. Mackley and G. K. Bourne 3-6, 2-6.

GRASSHOPPERS v. ST. BARTHOLOMEW'S HOSPITAL.

On Sunday, July 5th, the Grasshoppers Club were at home to the Hospital 1st VI, and after a most pleasant afternoon's tennis the Hospital lost by 6 matches to 3. Results:

E. Corsi and G. L. Way	lost to K. H. Bowen and W. Edwards 6-3, 5-7, 4-6, lost to S. Jagger and E. Snell 4-6, 4-6, and beat J. C. Roe and K. Fitzgerald 8-6, 6-3.
J. H. Hunt and C. A. Hinds-Howell	lost to K. H. Bowen and W. Edwards 4-6, 4-6, lost to S. Jagger and E. Snell 1-6, 1-6, and beat J. C. Roe and K. Fitzgerald 6-3, 0-6, 6-4.
P. J. Hardie and M. H. Desmarais	lost to K. H. Bowen and W. Edwards 5-7, 2-6, lost to S. Jagger and E. Snell 5-7, 1-6, and beat K. Fitzgerald and J. C. Roe 6-2, 6-4.

MELBURY CLUB v. ST. BARTHOLOMEW'S HOSPITAL.

On Wednesday, July 8th, the Hospital were beaten by the Melbury Club at Kensington by 3 matches to 6. Results:

W. K. Frewen and J. B. Waring	beat J. H. Hunt and C. A. Hinds-Howell 7-5, 3-6, 6-4, lost to W. S. Maclay and I. C. Duthie 4-6, 4-6, and beat R. J. W. Halliday and G. S. Parbury 6-4, 6-4.
P. J. Hardie and R. I. G. Coupland	lost to I. H. Hunt and C. A. Hinds-Howell 6-4, 4-6, 6-4, lost to W. S. Maclay and I. C. Duthie 3-6, 6-4, 2-6, and beat R. J. W. Halliday and G. S. Parbury 6-1, 3-6, 8-5.
G. L. Way and M. H. Desmarais	lost to J. H. Hunt and C. A. Hinds-Howell 4-6, 6-4, 0-6, lost to W. S. Maclay and I. C. Duthie 1-6, 6-0, 1-6, and lost to R. J. W. Halliday and G. S. Parbury 5-7, 6-8.

SECOND ROUND OF THE JUNIOR INTER-HOSPITALS CUP.

On Friday, July 3rd, at Winchmore Hill the 2nd VI beat Guy's Hospital in the second round of the Inter-Hospitals Cup by 8 matches to 7. After a very close encounter we won four of the six singles and four of the nine doubles. Results:

B. Alexander	beat Marley 7-5, 6-4; H. Knowles beat Southwell 6-4, 3-7, 7-5; B. S. Acharya beat Archer 6-3, 6-4; G. S. Williams lost to Chapman 1-6, 0-6; L. H. Cane lost to Stoddard 3-6, 5-7; P. F. Barwood beat Zorab 6-3, 6-1.
B. Alexander and H. Knowles	lost to Marley and Southwell 4-6, 5-7, beat Chapman and Zorab 9-7, 6-1, and beat Archer and Stoddard 6-1, 6-1.
G. Williams and P. F. Barwood	lost to Marley and Southwell 1-6, 5-7, lost to Chapman and Zorab 1-6, 4-6, and lost to Archer and Stoddard 3-6, 2-6.
B. S. Acharya and L. H. Cane	lost to Marley and Southwell 5-7, 0-6, beat Chapman and Zorab 6-4, 7-5, and beat Archer and Stoddard 8-6, 2-6, 6-1.

CORRESPONDENCE.

A PLURAL LIVING.

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

SIR,—Mr. Vick's brief history of the College gives me, with your leave, an opportunity of acknowledging Bart's hospitality to an old Guy's man in 1902. I must be the only Guy's man to have lived both in Bart's and Guy's Colleges. After house appointments, Gordon-Watson, R. W. Jameson and I were in the first batch of Civil Surgeons to go out to the South African War in 1899. As a result Gordon-Watson and I on our return took rooms together in London, S.W., to work at Bart's for the Fellowship. Within a few weeks of the examination we were turned out of our rooms by a

grasping landlady, who hoped—as it proved, in vain—to make a fortune out of visitors for King Edward VII's Coronation. In the emergency Bart's College received us both, and I had the privilege of living with the residents under Dr. Calvert, as Dean, and making many friends with them and with the junior staff. I was even allowed to set for a week or so as an assistant ophthalmic house surgeon in the holiday season—a rare experience for an ex-house physician of Guy's. Gordon-Watson, of course, passed his Fellowship, and I had to go back to Guy's before passing in the following year. But nothing will ever lessen my respect and friendship for Bart's, or my congratulations on a College which will now be as superior as the old College was terribly inferior—in material respects—to that at Guy's.

Yours truly,
Francis Fremantle.
Bedwell Park,
Hatfield, Herts;
July 20th, 1936.

TEACHING OF THERAPEUTICS.

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

SIR,—In the July issue of *St. Bartholomew's Hospital Journal* appears a letter from a student, Mr. Dickens, who seems to belittle the need for a painstaking teaching of "Treatment". Rational treatment without accurate diagnosis is, I admit, impossible; nevertheless of what real value is it to the patient to have a label attached to his complaint if then his treatment is neglected? Sir, I protest that the medical care of the patient cannot be learned from a text-book, and its practice is only to be acquired by a thoughtful compounding of the experience of one's teachers with one's own observations based on sound basic knowledge of all forms of therapy. This is the art of medicine which our generation is losing amidst all the scientific and pseudo-scientific ancillaries of modern practice. Many a time is the diagnosis only too obvious, yet the advice and treatment we are called upon to give is a matter of extreme nicety of judgment.

The clinical teaching on the diagnosis of the text-book diseases and of general principles and specific remedies to be applied in their treatment is excellent. The intelligent student leaving the portals of St. Bartholomew's carries with him not only a scientific knowledge of medicine, but also much of the accumulated wisdom of our forebears from Hippocrates, carefully sifted and added to by his masters, and later to be meliorated by his own experience. But I fear he often leaves with little knowledge of minor ailments and their care, as well as of the details of treatment to be applied in other cases. Because of this want in his training he fails to obtain the full confidence of his patients and of society which he might otherwise enjoy to his own profit and to that of the community, and does not become as, completely as he might, that instrument for the comfort of the people that is his mission.

I would suggest that each student, as in past ages, should be, during part of his training, apprenticed to some respected general practitioner of ripe experience, that he might learn of him the daily care of those whose maladies require other than specific treatment. Could not men of such type be appointed as casualty physicians instead of embryonic consultants? Students might then have some opportunity for apprenticeship in the Hospital Casualty Department, which might then usefully be enlarged.

Yours etc.,
C. O. S. Blyth Brooke,
Finsbury, E.C. 1;
July 18th, 1936.
M.R.C.S., L.R.C.P., D.P.H.

REVIEWS.

A HUNDRED YEARS OF MEDICINE. By WYNNDHAM E. B. LLOYD, M.A., M.R.C.S., D.P.H. (London: Duckworth, 1936.) Pp. 344. Price 15s.

This excellent book, which is a companion volume to Duckworth's similar publications on psychology, anthropology, English government, and inland transport, though written primarily for the layman, should prove a source of interest and inspiration to every medical student. It makes a brief but comprehensive review of a very wide field, and the information is presented with sufficient accuracy and detail to provide the reader with a true and vivid picture of the astonishing changes which have taken place in the world of medicine during the past century.

The author is careful to point out that recent advances are in many instances the fruit of discoveries made in the comparatively

remote past, but honour is nevertheless due not only to the original discoverers, but also to those who had the vision and the understanding to see that the knowledge already acquired could be applied to the theory and practice of medicine. It is interesting to note how each newly-recognized factor in disease—whether chemical, physical, biological, bacterial, toxic, hormonal, metabolic, or a deficiency in the food or endocrine system—is hailed not only as the cause of some particular disorder, but as the explanation of many other diseases, including cancer. The devious ways which have been followed to reach our present position are described in the clear and entertaining style which can be achieved only by one who is himself fascinated by his subject, and the book ends on a prophetic note by attempting to forecast what the future may hold for the medical profession.

Since the author is particularly interested in the public health services, his idea that the main duty of the doctor should be to promote good health in his patients as the best method of preventing disease should be given very careful consideration; and though the lush of his contention is self-evident, it involves a radical alteration in the present-day relationships between patient and doctor, and would relegate the treatment of disease to a position of secondary importance. It may well be that if the public conscience can be quickened to desire health instead of to dread disease, the next hundred years may hold in store even more astounding changes than this book has to record.

A SHORT PRACTICE OF SURGERY. By HAMILTON BAILEY, F.R.C.S., and R. J. McNEILL LOVE, M.S., F.R.C.S. Third edition. (London: H. K. Lewis & Co., Ltd., 1936.) Pp. 991. Figs. 763. Price 28s.

Scarcely eighteen months have elapsed since the appearance of the second edition of this text-book. Nevertheless the authors feel justified in placing another edition on the market since "surgery still makes such rapid strides" and since, presumably, the second edition was such a success. And we hope it was, because in our view it contains all the surgery that need be known for the qualifying examinations, and imparts this information with a clarity seldom found in text-books.

It is a pleasure to observe that, unlike most of its colleagues, the third edition contains fewer pages than did the first edition; that in spite of this there have been added thirty-two additional figures, each worth half a page of text; and that in particular the diagrams showing the common sites of fracture in the various long bones have been greatly improved. Otherwise it is still in its original and admirable form, and to those already familiar with it, it will need no further recommendation. To those who have not yet invested in a text-book of surgery we would say this: that this is as good a book on the subject as can be bought.

EXAMINATIONS, ETC.

University of Cambridge. Third Examination for Medical and Surgical Degrees, Easter Term, 1936.

Part I.—David, J. E. A., Fraser, A. C., Hunt, R. S., Loxton, G. E., McLaren, H. C., McNeil, C., Newbold, J. C., Payne, A. M. M., Taylor, W. J., Wenger, R. A. L.
Part II.—Beckett, F. G. A., David, J. E. A., Ledward, A. D., Maddox, F. C., Masterman, E. B. Z., Newbold, J. C., Parks, J. W., Saxton, R. S., Swain, R. H. A., Williams, E. G. K.

University of London.

Second Examination for Medical Degrees, July, 1936.

Part II.—Anthony, R. H., Bassett, T. H., Baxter, E. M. E., Bintliff, C. J., Bose, C. F., Crabb, E. R. T., Elder, P. M., Elek, S. D., Evans, E. G., Fisk, G. R., Frankel, P., Gimson, P. A., Goodman, P., Howitt, J. S., Hughes, J. F., Lillcrup, J. S., Lockyer, N. S., Mackay, G. C., McShine, L. A. H., Morgenstein, A., North, J., Ohannesian, A. O. A., Post, F., Potter, F. L., Rochford, J. D., Shuttleworth, V. S., Smith, B. J. D., Snelling, M. K. J., Ware, M., Warrick, C. K.

Conjoint Examination Board.

Pro Medical Examination, June, 1936.

Biology.—Cooper, C. F., Druitt, A. W. N., Morris, D. S., Perkins, C. P.

First Examination, June, 1936.

Anatomy.—Bell, C. J., Gollidge, N. H. H., Irvine, B. A., Marrett, H. R., Ouellet, R., Roberts, T. M. C., Vincent, S. E.

Physiology.—Bell, C. J., Gollidge, N. H. H., Irvine, B. A.
Pharmacology.—Brennan, E. B., Hartill, G. G., Jackson, K. V., Knowles, H., Pallot, K. R., Quibell, E. P., Smith, J. B. G., Webb, C., Webber, R. Hanbury, Weston, J. W.

CHANGES OF ADDRESS.

CULLINAN, E. R., 10, Park Square West, Portland Place, N.W. 1. (Tel. Welbeck 1834—unchanged.)
FOOKS, Lt.-Col. G. E., I.M.S., 24, Richmond Chambers, Richmond Hill, Bournemouth.
FRANKLIN, A. W., 10, Park Square West, N.W. 1. (Tel. Welbeck 8020.) Residence: 22, De Walden Street, W. 1. (Tel. Welbeck 4942.) After August 11th.
LEONARD, Col. W. H., I.M.S., Thorngumbald, Hull.
LOWRY, E. W., Rochester, Oakwood Road, Westworth, Surrey.
ROBINSON, R. D., 1, Coombe Rise, Coombe Lane, Kingston-on-Thames. (Tel. Kingston 1924.)
THOMAS, J. SAWLE, Bucks County Mental Hospital, Stone, near Aylesbury.
WELLS, A. Q., Shipton Manor, Kidlington, Oxford.

APPOINTMENTS.

COLTART, W. D., F.R.C.S., appointed Assistant Orthopaedic Surgeon to the Nelson Hospital.
FURBER, S. E., M.R.C.S., L.R.C.P., appointed Resident Obstetric Assistant to St. George's Hospital.
THOMAS, J. SAWLE, M.R.C.S., L.R.C.P., appointed Junior Assistant Medical Officer to Bucks County Mental Hospital.

CORRECTION.

ECCLES, W. McADAM.—Tel. Paddington 7479.

BIRTHS.

BLOXSONE.—On June 26th, 1936, to Helen, wife of H. E. Bloxsome, Paiford—a daughter.
BURROWS.—On June 20th, 1936, at Deane House, Prescott Road, St. Helens, to Nancy (*née* Jackson), wife of Dr. W. R. Burrows—a son.
BURSTAL.—On July 2nd, 1936, at Broadmead, Riverhead, Sevenoaks, to Katja (*née* Krnythosch), wife of Dr. E. Worsley Burstal—a daughter.
KINGSLEY.—On June 28th, 1936, to Marjorie (*née* Hammond), wife of Dr. A. P. Kingsley, of Osborne House, Burton Latimer, Northants—a son.
WILLIAMSON.—On July 24th, 1936, to Helen Frances, wife of James C. F. Lloyd Williamson, F.R.C.S., of 34, The Drive, Hove—a daughter.

GOLDEN WEDDINGS.

HEWER—EVERARD.—On July 13th, 1886, at Highbury, London, Joseph Langton Hewer, M.D., F.R.C.S., eldest son of Dr. John Henry Hewer, to Annie Martha, eldest daughter of the Reverend George Everard, M.A. Psalm 23, 6. Present address: Firbank, St. John's Road, Sevenoaks.
MASON—ROBERTS.—On June 30th, 1886, at Grafton, Hunts., by the Rev. B. H. Puckle and the Rev. Canon Linton, John Mason, M.D., to Amy Isabella Roberts.

DEATHS.

GIPPS.—On June 25th, 1936, Alexander George Pemberton Gipps, D.S.O., F.R.C.S., Lt.-Col. R.A.M.C. (ret'd.), formerly Fleet Surgeon, Royal Navy, aged 81.
LOWE.—On July 14th, 1936, in St. Bartholomew's Hospital, Dr. Francis H. Lowe, M.R.C.S.(Eng.), of Camden Lodge, Peckham Road, S.E. 15.
WILKINSON.—On July 15th, 1936, at Weybridge, Surgeon-Captain Edgar Sheldon Wilkinson, M.B., R.N. (ret'd.).

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, E.C. 1.
The Annual Subscription to the Journal is 7s. 6d., including postage. Subscriptions should be sent to the MANAGER, Mr. C. J. WILLIAMS, M.B.E., B.A., at the Hospital.
All Communications, financial or otherwise, relative to Advertisements ONLY should be addressed to ADVERTISEMENT MANAGER, The Journal Office, St. Bartholomew's Hospital, E.C. 1. Telephone: National 4444.

St. Bartholomew's Hospital



JOURNAL.

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

VOL. XLIII.—No. 12.]

SEPTEMBER 1ST, 1936.

PRICE NINEPENCE.

CALENDAR.

Tues, Sept. 1.—Dr. Graham and Mr. Roberts on duty.
Fri. .. 4.—Dr. Geoffrey Evans and Mr. Vick on duty.
Tues, .. 8.—Prof. Witts and Prof. Paterson Ross on duty.
Fri., .. 11.—Dr. Hinds Howell and Mr. Wilson on duty.
Tues. .. 15.—Dr. Gow and Mr. Girling Ball on duty.
Fri., .. 18.—Dr. Graham and Mr. Roberts on duty.
Sat., .. 19.—Last day for receiving matter for the October issue of the Journal.
Tues., .. 22.—Dr. Geoffrey Evans and Mr. Vick on duty.
Fri., .. 25.—Prof. Witts and Prof. Paterson Ross on duty.
Tues., .. 29.—Dr. Hinds Howell and Mr. Wilson on duty.
Thurs., Oct. 1.—Old Students' Dinner, Charterhouse Square.

EDITORIAL.

NOW that the time approaches for the reopening of the Medical School, and Charterhouse Square in its new glory is to see the beginning of its first complete academic year, it is pleasant to rest and reflect in the belated glory of an English summer. We may do so in the Square in the growing shadow of the new Medical Block with the bustle of workmen busy on every side at the new X-ray Department and at the Chapel, whose tower is the site of renovation—the subject of an article we hope to publish in our next issue.

We may, on the other hand, be far from scenes so familiar, preparing to return to reopened wards, new departments, or at least another field of activity—one

closer than the last to the Mecca of Queen's Square. That, however, is a goal which for the moment can pleasantly be forgotten, perchance by a stretch of water in the cool of the evening sun, perchance in a foreign clime, undisturbed by the machinations of war, or perchance in accustomed surroundings attracted by great expanses of fairway, with at times even greater of "rough". They each have their devotees, and each for separate reasons, but at least *chacun à son goût* applies to our professional as well as our recreative activities. The latter indeed, are, in a manner of speaking, of the nature of release phenomena, be they the expressions of freedom from anything so material as that slave the telephone, or reactions from the undeniable call of duty in one direction or another. They truly play their part and play it well, when at their end it is not unpleasant to put them off for another year and return to work once more.

We would draw the attention of our readers again to the Old Students' Dinner on October 1st, when Sir Kingsley Wood will be the guest of honour, and Sir Charles Gordon-Watson will be in the chair.

The Bart's Golfing Society will hold their autumn meeting at Hadley Wood on October 2nd, and it is hoped that many old Bart's men will be able to stay on for it after the Dinner.

We wish the Hospital cricket team success in the final of the Inter-Hospitals Cricket Cup.

HEAD INJURIES.*

SEVERE injury to the head may result in fracture of the skull and damage to the intracranial contents. It is not my intention in this lecture to consider in any detail the subject of fracture of the skull, for it is already well known to you, and the damage done to the brain is so much more important. There is no denying that a fracture is of importance as an indication of the severity of the injury to the head, and therefore the likelihood of damage to the brain; but it must be clearly understood that fatal injury may be done to the brain without fracture of the skull. The most serious complication of a head injury which is directly attributable to fracture of the skull is infection of the subarachnoid space.

Injury may be done to the brain in various ways. A blow may produce contusion or laceration, either close to the point of impact or by *contre coup*. This is less common, however, than compression of the brain by œdema fluid or blood, which interferes with its function, not by destruction of cerebral tissue, but by impairment of its nutrition. The exact mechanism of concussion, the commonest of all the phenomena following a severe head injury, is still unknown, though its brief duration indicates that it must be some transitory affection of the flow of blood or cerebro-spinal fluid, or even a brief period of inhibition produced by the force of the blow being transmitted directly to the cells of the brain without producing any permanent damage to them. Stranger still are the cases in which the signs we have learnt to ascribe to "cerebral compression" occur in association with a normal or low intradural tension.

These reflections are sufficient to show the complexity and interest of the problem of cerebral damage following severe head injury, and we may now turn our attention to the examination of a patient found unconscious after an injury to his head, assuming that the other well-known causes of loss of consciousness can be excluded.

EXAMINATION OF AN UNCONSCIOUS PATIENT.

First a rough estimate of the severity of the brain injury must be made by observing the depth of unconsciousness; and by noting the depth of respiration, the blood-pressure and the pulse-rate the state of the medullary centres may be ascertained. Next one should look for signs of a localized lesion, as shown by bruising of the scalp, the size and reaction of the pupils, movement and tone in the limbs, and alterations in the superficial and deep reflexes.

These clinical methods will frequently suffice to

* A Post-graduate Lecture delivered on Saturday, June 20th, 1936.

indicate whether the cerebral or medullary centres are suffering as a result of compression, but the exact determination of the intradural tension is often a necessity, and may be carried out very easily by means of a manometer connected to a lumbar puncture needle. This process should be devoid of risk, since very little fluid need be drawn off; and if the fluid contains blood, not only are we given useful information, but the patient is given relief from the irritation which results from the presence of blood in the subarachnoid space. The intradural tension should be about 120 mm. of cerebro-spinal fluid, and readings above 150 mm. are to be regarded as abnormally high, though in severe compression the figure may rise to 300 mm. or even higher.

MANAGEMENT OF CASES OF CEREBRAL INJURY.

1. *Concussion*.—When the examination shows that the patient can be roused, and there is no sign of increased pressure, it is important to leave him to recover with as little interference as possible. He should be sheltered from any external stimulation, nursed lying flat while the blood-pressure is low and the pulse rapid, but with the head of the bed raised as soon as they return to normal. There is no need to give hypertonic saline *per rectum* or intravenously, but the old-fashioned calomel and magnesium sulphate are of great value for the relief of the mild œdema of the brain which is the common sequela of concussion.

2. *Intradural pressure increased without signs of a local lesion*.—The chief guide to rational treatment must be the intradural pressure, whether the clinical picture be one of traumatic delirium or stupor. The increase in pressure is due to venous congestion, and to over-filling of the perivascular channels with œdema fluid or blood, and it will be readily understood that the object of treatment is to reduce intradural pressure so that arterial blood may enter the capillary bed more freely. This may be achieved by raising the head of the bed on blocks, and the patient's head on pillows; by giving hypertonic saline solutions orally, *per rectum*, and intravenously when necessary; and by lumbar puncture provided that care be taken to lower the pressure gradually. Withdrawal of cerebro-spinal fluid is especially indicated if there has been hæmorrhage into the subarachnoid space, but as a rule it is to be practised only when postural and saline treatment have failed.

In the rare cases in which these simpler measures do not succeed, it is necessary to perform subtemporal decompression in order to break the vicious circle whereby œdema and venous congestion become more and more profound. This is very seldom called for, and is done, not to arrest hæmorrhage, but to promote

a better supply of oxygenated blood by lowering intradural tension.

3. *Increased intradural pressure with signs of a local lesion*.—Under these circumstances it is unwise to try to lower intradural tension by salines lest the cause of the symptoms be a hæmatoma which might increase in size if space were provided for it to do so. Blood may collect outside the dura, in the subdural space, or within the cortex of the brain itself. When localized intracranial hæmorrhage is unaccompanied by other severe injury to the brain, in addition to the evidences of the focal lesion there will be a history of a lucid interval of variable duration, followed by a steady progression in the severity of the symptoms. Such a combination of circumstances demands craniotomy as an emergency operation.

4. *Pressure not increased, but signs of a local lesion present*.—This clinical picture is comparatively uncommon, and indicates direct brain injury by laceration or severe contusion. When the intradural pressure is low, it is best to keep the patient's head level with his body, and in fact this will be found as a rule to be the only position he can tolerate when consciousness is recovered. Complete rest will usually effect a cure without any special treatment directed to the nervous system, but if there is much blood in the cerebro-spinal fluid, lumbar puncture repeated every three or four days seems to hasten recovery. It is astonishing how rapidly and completely most of these patients recover, and a good prognosis can usually be given.

SPECIAL POINTS OF PRACTICAL IMPORTANCE.

(a) *Cerebral concussion*.—In attempting to assess the severity of this condition and its prognosis, attention should be paid to the duration of the period of retrograde amnesia, which is associated with all cases of concussion. It sometimes happens that a period of twenty-four hours before the accident may be completely forgotten.

During convalescence "rest" should not mean complete inactivity, and it is important that recovery should be encouraged by allowing and even encouraging the patient to increase his output of mental and physical effort slowly but steadily, always stopping short of fatigue or headache.

(b) *Traumatic delirium*.—The term "traumatic delirium" is preferable to "cerebral irritation", since it describes a clinical state instead of hinting at its supposed cause. The condition is believed to be the result of congestion of the cerebral veins, and therefore demands treatment to relieve the increased intracranial tension, which in its turn causes the venous congestion. In addition sedative drugs will be necessary, and the choice of the best one for an individual may be a matter of

great difficulty. Morphia as a rule is useless, and furthermore it is harmful because of the tendency to alter the patient's physical signs in a misleading way: it may be impossible to say whether signs of medullary embarrassment are due to pressure or to morphia. Sedatives and hypnotics such as the bromides, luminal and paraldehyde are the most useful as a rule, and hyoscine, though less reliable, is worth trying if the others fail. It sometimes, though rarely, happens that traumatic delirium persists for days, the patient refusing food and wearing himself out with constant uncontrollable restlessness. Under such circumstances it is necessary to perform decompression to relieve venous congestion and allow œdema to subside.

(c) *Middle meningeal hæmorrhage*.—This constitutes the one real emergency in cerebral surgery. Every student knows the classical clinical picture with the comparatively brief lucid interval followed by stupor, unilateral cortical compression, and the characteristic changes in the pupils; but unfortunately the accidents which occur in rapidly-moving traffic, or involve falls from great heights, result in more extensive damage to the skull and intracranial contents. In such cases, besides a tear in the middle meningeal vessels, there is often laceration of the brain itself, perhaps with intraventricular hæmorrhage, and an extradural hæmatoma forms without the tell-tale lucid interval, and without any recognizable evidence that the brain is more compressed on one side. It is sometimes doubtful whether evacuation of the clot and arrest of the hæmorrhage would be of any avail even if the condition were diagnosed, but cases are occasionally met with, and we now have one in our wards, in which recovery has occurred in spite of accompanying cerebral damage, and in which it is certain that this happy result could not have been achieved had the extradural bleeding not been recognized.

For exposure of the middle meningeal artery, the most convenient incision is a straight one running downwards and forwards from in front of the parietal eminence to just below the centre of the zygoma. The temporal aponeurosis and muscle are split and retracted, and a hole drilled in the sub-adjacent bone rapidly exposes the clot. The bone opening must be enlarged *downwards* towards the base of the middle fossa, and when the clot has been scooped out and washed away a spatula elevating the dura will control the bleeding. If the vessel cannot be under-run on the dura it can always be controlled by plugging the foramen spinosum with Horsley's wax. There is never any need to tie the external carotid.

(d) *Subdural hæmorrhage*.—Blood may escape into the subdural space either very slowly or more rapidly, and

it thus comes about that the clinical evidences of this complication may appear within a few days of the injury or may be delayed for several weeks.

In the latter group the injury is frequently so slight that the patient fails to associate it with the subsequent symptoms of cerebral involvement, especially as the latent period may be as long as six or even twelve weeks. The patient is usually over 50 years of age, and the most common injury is a blow on the front or back of the head. The resulting force, acting in the long axis of the skull, causes a sudden shift of the brain in relation to the dura, which tends to tear the cerebral veins as they pass from the cortex to the superior longitudinal sinus.

The symptoms in this "chronic" type of subdural hæmorrhage resemble those of a cerebral tumour, but in addition to headache, vomiting, papilloedema and weakness of the legs, there are mental changes associated with a curious variability in the state of consciousness—periods of semi-consciousness alternating with intervals when the patient becomes again alert and co-operative—which is so characteristic of this lesion as to suggest the diagnosis.

A small burr or trephine-hole made in the frontoparietal region will establish the diagnosis by revealing a discoloured area of dura, which must be punctured to allow the gradual escape of the dark fluid content of the hæmatoma. Subsequently the organized fibrinous lining of the cavity may have to be removed to prevent re-accumulation of fluid, but this is not a matter of any great difficulty.

The chronic type of subdural hæmorrhage has been dealt with first because it is better recognized than the "subacute" variety, which manifests itself within a few days of the injury. The patient may be of any age, but is usually a young adult, who has suffered a severe head-wound with concussion. Recovery seems to proceed in the usual way for 48 to 72 hours, but if about that time the patient's condition seems to deteriorate he may complain of more severe headache, or may become more drowsy, his pulse-rate may tend to fall and he may vomit, and not infrequently rather indefinite signs of weakness and sensory loss down one side of the body may be observed—a subdural collection of blood must be suspected. In our experience it is a rather indefinite feeling that the patient is not doing as well as he should which places one on one's guard, and as soon as we are satisfied after a period of a few hours that the symptoms show no improvement, especially if the state of consciousness shows a considerable variation from time to time, we believe that a small exploratory opening should be made through the bone just in front of the motor area. If the dura is

discoloured it must be incised, and treacly blood will at once exude. It is rarely necessary to do more than wash away the old blood by a gentle stream of saline and leave in a small drain till the brain has expanded and obliterated the cavity. When exploration is negative the operation must be repeated on the other side.

It is wise always to explore both sides in every case of subdural hæmorrhage, whether subacute or chronic, since bleeding often occurs symmetrically. Furthermore the physical signs are sometimes most misleading, and I have seen two cases in which hemiplegic phenomena occurred only on the same side of the body as the hæmorrhage.

(c) *Subcortical hæmorrhage*.—A small hæmatoma in the substance of the cerebral cortex is a rare complication of head injury, but when it occurs it gives rise to a clinical picture which may be recognized comparatively easily. The latent period between the injury and the onset of symptoms is seven to ten days, when focal epileptic attacks, followed by paralytic phenomena, make their appearance. There is rarely any considerable increase of intracranial pressure, and the treatment is to expose the affected area by osteoplastic resection of the skull, open the dura and evacuate the clot, which may be extruded spontaneously through the softened overlying cortex.

SUMMARY.

I cannot refer in the time at my disposal to traumatic epilepsy and to the later effects of cerebral injury, but I will summarize my remarks on the management of recent injuries to the head as follows:

1. Cerebral concussion is of brief duration, and recovery therefrom should be rapid and complete.
2. If recovery of cerebral function after injury to the head is unduly prolonged, the pressure in the sub-arachnoid space should be determined without delay.
3. The use of hypertonic salines as a routine measure in cases of cerebral injury is to be condemned.
4. Hypertonic saline is of value when the intradural pressure is raised provided there is no evidence of a localized cerebral lesion.
5. Hypertonic saline may be harmful when there is evidence of a localized cerebral lesion associated with a raised intradural pressure.
6. If a localized cerebral lesion shows signs of extending, or if it is associated with progressive deterioration in the patient's general condition, operation should be undertaken without delay.
7. A non-progressive localized cerebral lesion associated with a normal or subnormal intradural pressure does not demand operation. J. PATERSON ROSS.

QUESTIONS AND ANSWERS.



FEW weeks ago, Mr. Editor, you asked me some questions about the Hospital and, as Archivist and Keeper of the Muniments, I promised to discover the answers so far as is now possible. You asked:

(1) When were the shelters in the Square erected?

Mr. Thomas Hayes, our most excellent Clerk of the Hospital, tells me the four shelters in the Square were placed there by the generosity of Mr. Ebenezer Homan. A minute of the Treasurer and Almoners' Committee of November 21st, 1805, records the payment by Mr. Homan of the balance of £419 4s. 0d., £290 having been paid on July 18th, 1805. The Treasurer was asked to write to Mr. Homan expressing the thanks of the Governors. Mr. Homan was long interested in the Hospital as a Governor. He lived at Finchley in a large house with spacious grounds. The Treasurer was Sir Trevor Lawrence, son of Sir William Lawrence, surgeon to the Hospital from 1824 until 1865, and the favourite pupil of John Abernethy.

(2) When were the trees in the Square planted?

The trees were first planted in 1850, but the present trees were planted when the shelters were built. I seem to remember them as striplings when I was appointed Assistant Surgeon.

(3) When was the Fountain built?

In 1859. The older engravings of the Square show a plain gravelled quadrangle. Sir Norman Moore in his *History* quotes the following lines from the *Poems on Classical Prosody*, by Robert Bridges, the Poet Laureate, and a former Casualty Physician:

"Altho'
Hardly can I, who so many years eagerly frequented
Bartholomew's fountain, not speak of things to awaken
Kind old Hippocrates, how'er he slumbereth, entomb'd
Near the shatter'd wine jars and ruined factories of Cos
Or where he wander'd in Thessalian Larissa."

(4) When were the Sanitary Blocks built?

The story of these blocks appears to begin on June 22nd, 1829, when the surveyor made the following report to the Treasurer and Almoners on the existing state of affairs. It is, I think, worth reproducing in full and without comment. It runs:

"JOURNAL, 1826-40, pp. 115-117.

"HOUSE COMMITTEE 24th JUNE, 1829.

"Treasurer and Almoners' Report respecting Baths and Water Closets.

"Read the following Report of the Treasurer &

Almoners to whom it was referred as to the Expediency of having baths and water closets on the different wings of the Hospital, viz. :—

"The Treasurer and Almoners beg to express their decided opinion that it would be expedient to have baths on the Landings of the several Stories and that water closets be substituted for the present privies in all the Wards they beg leave to refer the House Committee to the following Report of the Hospital Surveyor upon this subject, in which they entirely concur and strongly recommend the mode he has suggested to carry this desirable Improvement into effect, be forthwith adopted.

"St. Bartholomew's Hospital;
22nd JUNE, 1829.

"In compliance with the directions of the Treasurer and Almoners the Surveyor begs leave to report the most advisable mode in his Judgment of altering the present privies in the several Wards and of placing a warm bath on each Storey.—He begs leave to state that the privies attached to the several Wards are formed by large leaden Funnel Pipes passing thro' the different stories and emptying themselves into large cesspools below, these occasionally are extremely offensive and in the event of an epidemic disorder might be productive of great mischief to the Hospital and the Neighbourhood.

"The great Improvement that suggests itself is to let down a large Body of Water thro' these funnel pipes, as they are used from time to time by the patients and these pipes instead of emptying their contents into mere receptacles for filth, should discharge themselves into Sewers and in this manner be carried off the Hospital premises.

"To accomplish such an alteration the first consideration is to obtain a large and certain supply of Water, it must be evident that the present supply from a water Company cannot be depended upon for this purpose, for at present when there is less consumption of water than would hereafter be required it is occasionally deficient.—He begs to suggest that a Cistern Capable of holding 3,000 gallons of water should be placed in the centre of the Roof of each Wing, that they should be supplied with water obtained by boring at the Back of the South Wing and thrown from thence into these Cisterns by a Small Steam Engine of Two Horse power which would not be of the least annoyance to the Hospital that over each set of the closets at the extremities of the Wings there should be placed a Cistern capable of holding 500 gallons and on each floor over every double closet a cistern to hold 100 gallons that a valve apparatus be fixed in each closet to be opened by the weight of the patient sitting down and closed on his rising up, being what is termed an Ordinary Self-Acting Closet.—The water does not pass into the pan until the Patients have been seated a few seconds the Soil and Water are intended to pass into the Present Funnel pipes which are of quite sufficient dimensions and substance to be used as they are and being carried down into a main drain, an air-trap is proposed to be fixed at the bottom of each pipe to prevent any effluvia arising from the drain or any sudden rush of Air to the closet above, when opened upon this System a large body of Water might be occasionally let down these pipes from the upper Cisterns to carry off any accumulation of Soil or any other matter in the pipes.—Thus will every Ward be provided with a water closet well and abundantly supplied with water, and in the several wards a small space might be screened off near the Water Closets in which the Patients might wash themselves having a false Floor lined with Lead with Water laid on it. The Cisterns are proposed to be placed under cover and as much sheltered as possible from the external Air. The Service will be so constructed as to be always empty after supplying the Cisterns in order to prevent the water freezing, which may be an objection to the System of Water Closets in an Establishment of this kind, but at Bethlem Hospital were they have been in use ever since the Hospital has been erected, no inconvenience has been experienced from this circumstance."

"BATHS.

"The Present Hot and Cold Baths now in the Basement Story of the South Wing are extremely dirty and objectionable, the Hot Bath being of Wood lined with Lead can never be properly cleaned, He begs leave to suggest that on the Landing of each Floor a Warm Bath be fixed formed of Copper well painted supplied from the large Cisterns in the Centre of the Wings, The Water from which is intended to be let down to a Common Steam Boiler on the Ground

Floor and after passing thro' the Boiler and becoming heated it will rise to the Bath on each Floor and which may therefore be always ready for use.

"The Present Pumps on the Landings of the Staircases are intended to be removed as the noise made in working them is extremely prejudicial to the Patients and the Present cisterns are proposed to be supplied by the New Engine.

"The Surveyor does not recommend the present supply of Water from the New River Company being discontinued, but it should be kept for the use of the Laundry Medical Buildings Officers Houses &c.

"With regard to an Estimate of the Expence of the foregoing Works it is extremely difficult to ascertain it with any certainty but the following sums may be considered as the probable Cost

	£	s	d
" Steam Engine and Well	1,000.	0.	0.
" The Plumbers Work including closets &c.	1,500.	-	-
" Woodwork to Cisterns alteration of Roof &c.	500.	-	-
" No. 11 Copper Baths & Boiler	300.	-	-
" Alterations of Cesspools New Drains &c.	1,000.	-	-
	£4,300.	0.	0.

"Which Report was approved and left to the Treasurer and Almoners to carry the whole or any part thereof into effect."

The present Sanitary Blocks were built between 1874 and 1878. On May 12th, 1874, the surveyor reported to the House Committee that "the W.C. and other accommodation is decidedly defective and objectionable". Plans were approved "for enlarging the projections at the ends of the Wings to provide outside every ward, a bath, lavatories, slop sinks, urinals etc in addition to the two W.C.'s". The annexe to the West Wing was built in April, 1875: to the East Wing in February, 1876, and to the South Wing in 1878. The whole cost appears to have been about £14,000 to £15,000.

I wrote to "Sister Eyes"—Miss Davies—asking her what she remembered when she was a probationer. She has a good memory and was appointed Sister-in-Charge of the Eye Wards when they were opened in 1870 and were placed under the care of my father and Mr. Bowater J. Vernon. Writing from Newcastle Emlyn, Carnarvonshire, she says: "The W.C.'s in the Abernethy block were at the Smithfield end of the wards.

"I cannot quite remember how we got hot water, whether there were boilers at the back of the fireplaces, but we had a bathroom and so did Lucas and Casualty. The heating stove for them was on the Casualty floor. The bathman bathed the male patients in the bathroom under the old out-patient room across the Square." "The old out-patient room across the Square" was situated where is now the ramp leading to the kitchen entrance. The bathman, as I remember him, was a small man who dragged a large bath into the ward by a long handle, filled it with water and stood by the patient whilst the house surgeon tried to reduce a

strangulated hernia by taxis before sending for his surgeon. The assistant surgeon was not allowed to operate and the surgeon, summoned by a written note delivered by his box carrier, arrived in a hansom cab. I still remember the pained look on Sir William Savory's face at 3 o'clock one snowy morning. The patient was lying on the table in the old operating theatre awaiting his arrival and examination showed that the hernia had reduced itself. The box carrier, too, had his likes and dislikes: "Mr. Savory is a very arbitrary gent. He says I stink and makes me ride on the step of the cab whatever the weather; now there's Mr. Marsh he always says 'Come inside, Tom, it's raining'."

"Sister Eyes" continues: "I think the dinner tins were carried from the ground floor by the nurses, but this I am not quite sure of." The Kitchen was below Hailey and it is for this reason that the back ward is higher than the front. The routine was for the porters to carry the dinners to the ground floor in each block and then shout through the speaking-tube "Dinner!" when the nurses came down and carried the tins up. There were, of course, no lifts until many years afterwards.

(5) How was the Hospital supplied with water?

The water supply was a constant source of trouble. The original supply was perhaps obtained from one of the numerous springs which abounded in the "No-man's Land" granted to the Hospital by Henry I in 1123. These have long since disappeared with improved drainage of the sandy soil upon which the Hospital is built, but one still remains in the forecourt of the General Post Office, within a hundred yards of the out-patient entrance. It is a spring of clear water at the base of the bastion of the Roman Wall.

When the East Block of the Hospital was built in 1739 there was some difficulty with the subsoil water. Advantage was taken of it to make a small swimming-bath lined with Dutch tiles. The bath still remains, but it is now fed by the Metropolitan Water Board. On June 13th, 1558, it was ordered by the Governors that "a copy of the book taken out of Doomsday for the water to make a breviate [abstract] out of it to show it to the my lord Chancellor", and on March 11th, 1559, "A box was delivered to Mr. Wathers containing writings concerning the water that should come from St. Bartlemy to the hospital, one under the seal of King Henry vith (1421-1471), the other an indenture between the prior of St. Bartholomew's and the master of the Hospital of St. Bartholomew". A careful search through the Doomsday Book of the Hospital by Miss Gweneth Hutchings and myself has failed to discover either of these documents, and shows that many

pages have been mutilated. It seems probable, therefore, that the originals were literally abstracted and were handed over to Mr. Wathers, who was no doubt a counsel learned in the law.

The water supply came from a conduit at Islington, which was carried by pipes of lead to a cistern in St. Bartholomew Close, whence it was distributed by a pipe to the Hospital. The upkeep of the supply was a constant source of trouble until, on November 25th, 1660, "The countess of Holland desired the Governours to join with her in demolishing the Conduit in St. Bartholomew the Great and taking up the leaden pipes from Canonbury conduit which for many years have been no way useful". Sir Hugh Myddelton, it will be remembered, opened the New River Water supply at Clerkenwell on Michaelmas Day, 1613, so that the Hospital water was supplied by the New River until it was taken over by the Metropolitan Water Board in 1905. From time to time there has been some consideration about sinking an artesian well in the Hospital, but it has not yet been thought desirable to do so. The older prints of the Hospital show a small plot of land called Well Yard situated on the south side of the Church of St. Bartholomew-the-Less, perhaps on the site of the present Harley Block.

This, I think, answers your five questions, Mr. Editor, but I am open to correction by those far older and wiser than your contributor. D'ARCY POWER.

JOHN MELLY: OR THE BRITISH AMBULANCE SERVICE IN ETHIOPIA

By CAPTAIN R. TOWNSHEND STEPHENS,
Of Lincoln's Inn; lately Adjutant of the British Ambulance
Service in Ethiopia.

I. EARLY DAYS.

STRICTLY speaking the recent Italian Abyssinian war had nothing to do with us; some, therefore, called the British Ambulance Service in Ethiopia a scatter-brained adventure, others more kindly called it a venture of faith.

John Melly, who founded the unit, commanded it in Ethiopia until he died, paradoxically, at the hand of an Abyssinian looter; and the posthumous award of the Albert Medal in Gold, which some of us like to think is the civilian equivalent of the Victoria Cross, was a moving tribute to a very gallant surgeon.

In July of 1935 an odd assortment of furniture was somewhat pathetically arranged as an office in an unfurnished flat in South Kensington, and a notice-board bravely proclaimed the purpose of an organization that was yet to be formed, for a war that was yet to be declared.

Sub-committees were formed. John Melly and Dr. Christopherson, with General Barrow and Col. Harnett, disposed of the difficult medical problems; Col. Smith "wedded out" strange volunteers (in three months he must have met half the riff-raff of the universe); Col. Llewellyn arrived like a comet and faded away to Kenya to recruit personnel, leaving transport, now involved, to the wretched Stephens; Baxter, the stage director of that remarkable entertainment, "1066 and All That", was anywhere and everywhere, and enlisted the deep-voiced Shakespearian actor Fielding as secretary and general factotum.

So far, good, but there was no money. Many and devious were the devices tried, for we did everything but steal. Most promising were the offers of assistance, but always from gentlemen who wished to be appointed treasurer—and upon investigation these gentlemen were usually found to be of the underworld. Millionaires were circularized, philanthropists were interviewed, but the results were depressingly small. There was the lady of fabulous wealth—"I have never heard of such gross impertinence, I have already assisted the Italians, and I shall now give them a second contribution".

Then one day Fielding announced a personage—"Lady Georgiana Philadelphia, of Number One hundred and forty-four Brook Street", he hesitated—"Mews, W.1".

He gave her ladyship a comfortable chair by the fire, he insinuated near her a small table on which there were pen and ink, also blotting-paper the size of a personal cheque book. There was a wicked glam in Fielding's eye; his sense of humour was to see us through many a forlorn moment of the future.

John Melly dealt with the situation: "Our motives are humanitarian . . ."—it was our stock opening.

"My name is Lady Georgiana Philadelphia; and I wish the Emperor to have this coffee as a personal present from myself. I refuse to pay the postage, as you may well take it yourself."

Coffee for the King of Harrar carrying coals to Newcastle. Fielding never lost his head. With supreme dignity he showed her ladyship (*sic*) out. He bowed, she bowed. Gravely he bowed again, gravely she bowed again. Would they never stop?

There was a gentleman, silver-haired, so suave, who offered us four thousand pounds a month on behalf of a well-known society, the sole condition being that he

would have "supreme business control". The well-known society knew nothing of this strange posturer.

But while there was despair in South Kensington, members of the general committee had been busy. His Grace the Archbishop of Canterbury, Lord Lothian, Lord Lugard and Mr. George Lansbury signed an appeal to the Press. Major Athill and Mr. Brackenbury were indefatigable. If there were no large sums there was a steady stream of contributions from well-wishers all over the land. A gift that touched the heart was a half-inch bandage with a message, "A crumb of comfort from Wolverhampton". The writing was odd, with no capitals; the donor was probably very poor.

The strain on John Melly's face relaxed one morning. He pointed to newspaper placards—"Peace Talks at Adua". He saw dismay on many faces.

"So much for your talk of humanitarian motives . . . you're really a lot of adventurers." He smiled. Hard hitting, if partly true.

Came General Newman to produce order out of chaos in that office—a thankless task.

Then there were the touts of trade who, with infinite ingenuity, solicited "a little order". The more brazen touts suggested "a little private chat". Pressed for the object of this "little private chat", there would be a *sotto voce* suggestion of "the splitting of commission". When bundled out of the premises these half men would sneer, "You army men don't know the first thing about business".

—But it is fair also to show the other side of the picture. Many a firm helped us by selling materially below cost price because of the worthiness of the cause.

II. THE BRITISH RED CROSS AMALGAMATES.

In the autumn of 1935 the British Red Cross suggested an amalgamation. Their funds, added to those collected in South Kensington, made a first unit immediately possible.

The Italians had taken Adua and were advancing on Makalle. In the south there had been an advance into the Ogaden. Time was therefore an important factor, and the question of the size of the unit became of lesser consequence.

After a conference a unit establishment was decided upon. John Melly, Commandant; Macfie, Second in Command; Townshend Stephens, Adjutant; Daikhuus, Bevan, Empey and Peverseff, medical officers and surgeons; Purves, Gatward, Dobinson and, later, de Halperit, transport officers; five British warrant officers, and dressers, askaris, lorry-drivers and camp followers to the number of one hundred.

It is idle to speak in terms of "bed accommodation",

as in practice patients were so numerous that after every bed and stretcher had been used the remainder lay in the open under blankets.

Transport consisted of sixteen 30-cwt. Bedford lorries and three Reo roadsters. One lorry was fitted with water-tanks, another with an extra dynamo capable of lighting the operating tents and the ward tents.

Lorries and stores were ready for shipment on November 15th; and personnel were to proceed overland.

Just before the unit left England the Archbishop of Canterbury expressed a desire to inspect the unit and to bless the flag. John Melly at once consented, for indeed it was a gracious thought, and the parade took place one morning in November in the quadrangle of St. Thomas's Hospital. A scratch team, this new unit, and there was an element of *opéra bouffe*, for we were bedecked in strange uniform caps and greatcoats, for kinema purposes!

Sir Arthur Stanley, the Chairman of the British Red Cross, opened the proceedings with a speech, and the Archbishop replied. Melly and the Adjutant were called up for the ceremony of the blessing of the flag, and finally His Grace spoke to each individual member of the unit.

III. EN ROUTE.

The unit was equipped for the Southern front, where motor transport would be found particularly suitable. However, the first rude shock was the information that we would be required to serve on the northern front, as near Makalle as possible. A hurried glance at the map coupled with a knowledge of contours caused something akin to dismay. How were lorries to climb mountains ten thousand feet high without roads? Furthermore, if we were required for the northern front, why were we proceeding to Berbera for the long trek to the Ogaden? Obviously the port for the north was Djibuti, for rail to Addis Abeba, some four hundred miles distant as a base.

The proposition was unanimously turned down, and a pleasant voyage to Berbera followed. Little did we appreciate our future. At Berbera we proceeded to sort equipment and to train raw troops. The languages required were Swahili, Arabic and Urdu; to say nothing of the languages of the land, in particular, Amharic. In practice the language most effective was that unrecognized "bat", the *lingua franca* of the British Army throughout the world; and this language was rapidly assimilated from the adjutant by Empey, Bevan and others.

In Berbera the transport officers worked wonders. New engines were "run in", driving tests were arranged, and mechanical adjustments made.

Red tape in British Somaliland was firmly established—"Please comply with paragraph seven (b) of Chapter seven, part seven, of the Supplement for the Better Government of the Protectorate of British Somaliland", or words to that effect.

The first reply was to the effect that "this office" was not in possession of the Government Publication quoted above; and that in any event the unit would be out of the jurisdiction within the week.

No good—"Sir, I have the honour to transmit herewith a copy of the Supplement for the Better Government of the Protectorate of British Somaliland, the cost of which is Rupees 7 annas 8 only, for which please sign the attached form in triplicate". The prompt payment of debts by handing them over to the peon on the spot probably amounted to treason.

Melly and the Adjutant were invited to lunch with the Governor of British Somaliland at Sheikh. There was an unexplained halt as we came into view of the little hill station. Various languages were used; finally the Berbera driver explained in pigeon English, "This where all real sahibs put on trousers and coat". So we, too, aped the "real sahibs" and dressed in a manner the heat did not warrant. "Gentleman's Corner"! The Governor, Sir Alexander Lawrance, was most helpful in every way.

Before the unit left Berbera we held our first "guest night" and everything proceeded in due and proper course. It was, however, a poor return for all the hospitality we had received.

To Hargeisha by short treks, for transport purposes. The lorries still boiled upon the slightest provocation; but the heat was torrid. We crossed into Ethiopia without ceremony. The country between the frontier pylon and Jiggiga was indeed that which God, when He made the world, forgot. Somewhere we came across a stray Ethiopian soldier. His rifle was slung upside down, and he had little interest in the world at large. Perhaps he was on leave!

At Jiggiga General Nassibu greeted us. Much as he appreciated the offer of a large organization such as ours for the southern front, he really suggested we proceeded north.

"Mais pourquoi, mon General?"

"Les Italiens n'ont pas le courage d'attaquer au sud".

A little more schoolboy French was indicated:

"Mais qu'est ce qu'on peut faire avec les camions sur les montagnes?"

"Mon ami. Il y'a a maintenant la Grande Route Imperiale au Nord".

Anyway it was not on our maps!

John Melly went to Addis Abeba to discuss the

dispositions of the unit with the Minister, Sir Sidney Barton. The unit moved to Harrar to await orders.

Harrar is a walled city. A foul but interesting town. The police were in charge of seconded French officers; and strange were the tales they had to tell. Harrar is also one of the clearing-houses for the slave traffic, particularly from the Kaffa Province. Chapman Andrews was Consul at Harrar; an invidious job it proved later on.

Again the unit was inspected—by H.H. Prince Ali, the Commandant of the Egyptian Red Cross, and by the Governor of Harrar. Fortunately the inspections coincided, and Cook's Tour guides were detailed from the mess.

George Heruiy, a son of Belatingeta Heruiy, the Foreign Minister, joined us for liaison purposes. He had a difficult task—to sidetrack us from our real front, the south, to the north.

At about this time we heard of the Hoare-Laval Proposals. The repercussions were extraordinary, and Great Britain "lost face" in Ethiopia.

At Addis Abeba John Melly found a consensus of opinion that we should go north. In the first place it was the Emperor's wish. In the second place it would relieve political tension. In the third place, Brown, of the International Red Cross from Geneva, aided by the voluble, forceful and lovable Jounod (also from Geneva), would have it so.

"What about roads?"

"The Grande Route Imperiale au Nord is being constructed".

"How far can we go?"

"You can get to Dessie."

"And from Dessie?"

"We will make for fly, we will make for mule, we will make for, how you say, les ânes, we will make for anything, mon vieux. Melly—Mellec—listen to me . . ."

Dear old Jounod.

That man spoke several languages. Were there not Red Cross units from seven countries? But English he could not speak. "I cannot speak eet, but what can I do. I have always before my eyes the wounded. The wounded, mon Dieu, how they suffer. They have no any medicaments, they have no any water, they have no any foods. We must give them nourriture, we must give them medicaments."

And when he spoke like that, sweat poured from his honest face, and true sorrow was in his eyes.

"Stefen, I beg you, think of the wounded. You have, how you say, the way; make the apologize and go to the North."

And so the unit was ordered to entrain for Addis Abeba; and without adventure a smart camp was

pitched in the British Legation grounds. More inspections—by Sir Sidney Barton and by the Crown Prince of Ethiopia.

Soon we were cheered by the news that Canon "Dick" Sheppard's broadcast had put us beyond financial anxiety. And while their menfolk adventured in the sunshine abroad, wives were in clerical drudgery, acknowledging gifts with nothing but December fogs to lighten their day.

IV. NORTHERN FRONT AFTER ALL.

On Christmas Day, 1935, the unit left Addis Abeba. There were signs, but insignificant signs, of the morning after the night before, for Christmas dinner had been anticipated on Christmas Eve.

The unit was a good unit; and excepting for some grousing from the transport anent the fantastic job they had to undertake, we were all settling down. Foibles were understood and allowances made. The Kenya men were not too good, but they respected a firm hand.

Seventy-five miles from Addis Abeba to Debra Bahan on the Grande Route Imperiale au Nord—there were stretches of road here and there, but the rest went over plateau, and a sense of direction was wanted.

A pompous little man in a self made uniform represented himself to be the Governor of Debra Bahan. His military cloak was of soldier blanket, as also the kepi; to both there was relief in the nature of jaundiced trimming. The breeches would have been turned down by an Indian syce, and the feet were bare. He demanded papers. He was given an order for groceries.

He removed his sixpenny store spectacles, so that he might see with adequacy; then he scanned the grocery items upside down.

"These figures no doubt refer to the numbers of men and to the numbers of 'baboons'—(surely baboon is Sudani for lorry?)."

Translation was duly executed by a grinning ape of an interpreter, who gave the show away. The true and only "pass" for the unit was a two-paged document, with the Lion of Judah superimposed upon the second page. This second page the generalissimo would retain.

"You cannot have the second page; either you have the two pages or nothing?" murmured Melly.

"Haille Selassie has written to me on the second page; what do I want with the first?"

We came to the evil country, "Shola Meda", presided over by a dignitary who is truly called the "Lord of the Mud". There lorry loads are portered for miles, and lorries themselves are dragged by tow-ropes and tug-of-war teams that number anything up to fifty exhausted humans at a time.

"Halambeh!" It is a long-drawn-out cry.

"Allah!" is the reply.

"Halambeh!" The agony is intense.

"Allah!" Again. And the strain is visible.

"Halambeh! Qulu sowa sowa . . . yallah . . . yallah . . . yallah."

Officers, warrant officers and men heave until their eyes start out of their heads. Result? *Nil*.

"For God's sake take your — foot off that accelerator."

Smoke dies down. But the smell of scorched rubber persists.

"Better build up the ruts with stones."

"Brilliant! There aren't any stones for miles."

"The only thing to do is to lift the lorry up a foot and then let them haul."

"Come on then. Get stuck into it. Bunner, you take the near side party. Atkinson . . . Where the devil is Atkinson?"

"Here, sir."

"Party on the off side, and lift."

"Very good, sir." A Cumberland county player gets his back under the body of the lorry.

. . . "Well, thank God that one's away. No it isn't. But its ten yards to the good. Where are the other eighteen lorries?"

Dessie was periodically bombed. The inhabitants had become wary after the first dose of frightfulness. Sorenson, the missionary from America, was a little bitter about the bombardment of his hospital.

"Guess that's the fifth time they've bombed the Red Cross."

"A recurring accident ceases to be an accident" shrewdly observed Macfie.

"Say, Cap'n, who's this man Macfie?"

"He is one of our best men on tropical diseases."

"What, *the* Macfie?"

"I suppose so."

"And he comes trailing around Ethiopia! Its Christianity at his age. This is Doctor Stadine, Melly; he wants to borrow a doctor or two."

"With pleasure. That is to say until we move again."

Stadine had the help of all the doctors. All bomb cases. Men, women, children and babies. Later little Mrs. Stadine was killed by a stray bullet.

V. ON THE ROAD TO WALDIA.

The so-called road from Dessie to Waldia was reconnoitred by Gatward. He struck bad weather. A relief party went out and nearly made confusion worse confounded. The Ford V8 was in difficulties. It had not been constructed for mud, axle deep. And there

were punctures galore. What exactly happened to the puncture outfits remains to this day a mystery; but Empey overcame the difficulty with surgical plaster. So, too, how Empey got the V8 up a series of muddy hairpin bends remains a feat he can best explain. As it was, Barkhuus and the adjutant, nervous of the necessity for a second relief party, determined to march the odd twenty-five miles back to camp. After the sixteenth mile the adjutant was a hopeless washout, shivering with an ague, and unable to stand. The ague was cured by youghourt and tej, but the appearance of Empey with the V8 was welcome indeed. None the less it spoilt a memorable marathon.

Near Waldia there was a hullabaloo. Literally hundreds of men ran to intercept us. Would we wait to see Detjasmach Gabra Mariam?

"Who is Gabra Mariam?"

"He is a great man, a very great man."

"There is only One so great that He can change the Day into the Night," said the adjutant, watching the setting sun. Travellers by night in Ethiopia seldom arrive at their destination.

"Allah," chorused the Mohammedans.

"Haille Selassie" murmured a staunch Ethiopian.

An S.O.S. arrived from Burgoyne, at Waldia, asking for immediate surgical assistance for the people of Waldia who had been bombed. It came at about 8 p.m. on January 16th. By 9 p.m. the surgical lorries were away with their personnel. At 4.30 a.m. next morning the remaining doctors crowded into the V8; and, as they left, the rest of the unit was packed ready to move.

The road was vile, the weather was vile. The only thing that cheered us was a notice stuck on a tree—"This way to Waldia. Love and kisses. John Melly."

The unit was in Waldia that evening, and the surgeons operated all night. Day after day the wounded came in. Then came the gangrene cases, men, women, children again.

Macfie also took the "out-patients". It was a miracle how he dealt with them all. And the filth of the people was indescribable—every description of vermin . . . but enough.

Melly was proud of his unit; it was justifying itself at last.

Weeks later work slackened off. "Cannot we go forward?"

"Ah, but the Grande Route Imperiale au Nord is not yet complete."

The truth was that the Great Chamberlain, Ligaba Tasau, had been giving his men too many holidays. Still, those unpaid armies deserved some relaxation. They had few tools. Much road was made by hand and by stove. There was nothing wherewith to blast;

they heated stone and threw cold water over it, hoping for a crack. There were many slaves about. Each peasant had three or four slaves; men, women and children, usually there was evidence of mutilation, possibly for venial disobedience.

VI. INTERLUDE.

Melly and Stephens went down to Dessie to urge the Emperor in *re* the Grande Route. The Emperor gave us Veuve Cliquot for tea.

Then there was news of Llewellyn, from Kenya, who was to be base officer at Addis Abeba. The line of communication was about 400 miles to Addis Abeba, or about a thousand to the sea, and the Committee in London were exercised about supplies for this Unit "in the blue". The Committee now included Sir Harold Fawcens, General Robinson and Mr Davies of the Red Cross—and endless work was cheerfully undertaken by Mr. Ruber, their Secretary.

The Emperor placed an aeroplane at our disposal. Unfortunately it turned out a bad business, as the aeroplane was commandeered for eight days; and the unit, without Melly and the adjutant, was consequently administratively high and dry. However, bills were paid, stores for the rains ordered, and liaison with Llewellyn effected.

There were interesting people in Addis Abeba.

The journalists, of whom there had been 120 in Addis Abeba, had thinned out. The doyen was Walter Collins, a tower of strength to Reuter; Steer of the *Times*, for whom there is a brilliant future. There was Haytor, the pilot of an ill-starred Red Cross aeroplane. It was under-powered, but Haytor refused defeat: he crashed into trees, because the accursed engine was not up to the altitude. The Lloyds were there. It takes courage for a woman to fly from Khartum to Addis Abeba "to see the war". Her monospar disliked the altitude, and there was a crash in taking off. For five days these two languished as prisoners in a filthy

"Tukkul" (hut). Through the nights torches were held aloft by slaves, who were flogged if they moved. Count von Rosen, Goering's nephew so they say, the pilot of the Red Cross Fokker, had with him his pretty *fiancée*; she was an oddity, of quiet temperament and a parachutist of international fame.

Fitarauri Babacheff had been one of Menelik's generals. He had married a woman of royal descent, and by her had one son and two daughters. The son was commodore of the now defunct Ethiopian Air Force; it was never more than a transport service. One daughter married Ras Gedatchu, and the other Detjasmach Nassibu. The old Russian General was a

man of great charm. His house he called the "Maison de Content". The eucalyptus trees he had planted were now over 100 feet high. "For years I have been serene; I have watched the world go by. But now, there is something in my bones: I wish to fight again." He it was who disputed the oil concessions of the mysterious Mr. Kicketts.

There was a Georgian Prince who had seen better days. Years ago he had arrived with sabred out-riders. He was greeted with a gun salute. Later he became a furrier; and now he shakes the most potent cocktail in Ethiopia.

Names that recur are Balfour of the *Evening Standard*, Evelyn Waugh and Knickerbocker. A woman journalist flew back to Dessie with Melly and the adjutant. Her object was to go "as far north as any living journalist". Maybe some day she will attain her ambition.

VII. TO LAKE ASHANGI.

At last the infernal Route Imperiale had broken through the mountain fastnesses to the Ashangi Plateau. The unit moved from Waldia forthwith, leaving a detachment to evacuate wounded to Dessie in the three Reo lorries, now fitted to carry twenty-four lying cases.

At Alamata the first gas cases came in—mustard. Many patients suffered from mustard spray, the skull and bare back being particularly affected.

Macfie and Empey formed the advance party on Ashangi plain. On the return journey the adjutant's party was bombed. During that day fearful havoc was caused by an incessant bombardment of the roads.

The main part of the unit was attacked in rear by Ethiopian brigands (*shifto's*), and in consequence moved into the Alamata valley. The petrol supply had been cut, and the situation was none too bright.

That night the unit bivouacked on Ashangi plain.

On March 4th camp was pitched. On this occasion, instead of marking out a square camp with the usual cross roads making four "quarters", the adjutant pitched a camp along the four sides of a 50-yard hollow square. Within the square was the Red Cross ground flag, measuring 50 feet square.

At midday an Italian 3-engined plane flew over and bombed the camp severely. This piece of culture was repeated on March 5th and 6th. Very little was salvaged. Operation tents, lorries, wards and messes were blown to pieces. A subsequent visit showed 88 H.E., some 120 incendiary and 100 instantaneous fuse bombs within this camp area.

The tents were left standing on March 5th and 6th as in any event they were useless, and the repeated bombardment on these subsequent days ruled out an

Italian plea of "accident". The excuse subsequently put forward by Signor Suvitch was an odd one: we were forsooth an ammunition column, improperly using the Red Cross emblems.

In so far as was possible the unit was reorganized in the Alamata valley. The doctors were indefatigable. The British element determined to go forward and to carry on until such medical and food stores as remained were exhausted. This plan did not meet with the approval of 70% of the native personnel, who demanded repatriation on the grounds that the Red Cross emblem had not been respected. One or two argued that if they had rifles they would stay. But, on the whole, they suffered from a depressing attack of chicken liver, and few of us were sorry to see the backs of these modern gentlemen of fortune.

VIII. CAVE DWELLERS.

On the top of what seemed God's highest mountain there was a large cave, some 20 feet square; and this cave the Emperor was pleased to allocate to us as an operating theatre. It was bomb-proof, but hardly lice-proof; it was a sad failure as a hospital. Bevan, who once slept therein, was suspected of measles next day.

The unit now consisted of the original British personnel and a few faithful members enlisted in Addis Abeba. When we were not attending to patients we contrasted the evening peace of Lake Ashangi with the hideous gas warfare indulged in by the Italians.

The British military *attaché*, Colonel Holt, came by plane to investigate our parlous situation. He took his plane into a scrub valley, and there camouflaged it, with success.

A few days later Jounod and von Rosen flew up in the Ethiopian Red Cross Fokker plane. Their escort was a dilapidated Potes.

"Ah Stefan. Have you your nourriture, have you your medicaments?" Dear old Jounod!

"What have you done with your plane?"

"Eet, we have camouflaged by the side of the place."

"Listen!"

The drone of half a dozen aeroplanes, probably bombers.

There followed unpleasant sounds of H.E. bombs near the landing-ground—called simply by Jounod "the place". Von Rosen was well off the mark. His intention was to fly his machine off to Dessie, to return when the sun went down. From the mountain we could see the Potes burning vividly. Empey and the adjutant followed von Rosen and Jounod. When we

arrived we found they had probably put the gallant old Fokker *hors de combat* by machine-gun fire. Like children we got into the cockpit, and discussed the possibilities of getting the machine away.

"By the law of chance the blighters ought to be over again."

Yes, they were! And as we ran to distant cover we found they were fighters, intent on more machine-gun work. They were travelling very fast—so fast that we could not get to cover. But we found a narrow gully, about 18 inches wide and 18 inches deep. If it did not prove a pleasant Tuesday afternoon, it was certainly an exciting one. We jested about the Hereafter—probably from bravado. They had sighted us and gave us burst after burst, until we forgot how many times they had come.

"I'm off," said Empey; "my camera will be destroyed."

"Well, as for me, I stay where I am; for all intents and purposes dead." And because we did not move the Italians flew off to report their gallantry for the purpose of medal distribution.

There was a good deal of gas about that day. There were crocodiles of the blind. They stumbled forward, the hand of one on the shoulder of the one in front. Nothing could be done. Direct vision had been destroyed—men, women and children again.

And of these the women were brave.

After some three weeks of mountain dwelling we found the situation was truly serious. The *shifto's* (brigands) had become a real menace to the L. of C. And we were called upon to deal with their foul mutilations day by day.

Then there was news that Ras Kassar and Ras Seyyum had retired to Socota, their armies following as best they might. The news that Mullagetta was dead and that his army had dispersed was confirmed. Ras Gedatchu was lost in the Aussa. Reorganization was attempted at Umbalaji, and the Imperial Guard became more active at Quorem. The Emperor held council. He was advised to withdraw to a line south of Kobbu, and west thereof, there to reorganize on an extensive scale.

Haille Selassie shook his head. He ordered an advance of the Imperial Guard. Himself he led the forlorn hope. He wore the uniform of a field marshal. Round his head he wound a muffler, and thereupon he placed his forage cap. He mounted a magnificent mule, and the advance began.

Days later he suffered a shocking defeat at Maicho, south of Umbalaji. It was the beginning of the end.

His fault was that he had believed in that extinct volcano of hope, the League of Nations.

IX. REORGANIZATION.

Melly took his ambulance back to Dessie. Rain had interfered with the Dessie-Addis road.

Should we go on again, half equipped, with inadequate personnel? Or should we withdraw to Addis Abeba, refit and enlist sufficient dressers and drivers? Common sense gave a disappointing answer.

The internal situation of Ethiopia was poor. Ras Gabra Hayat, instead of marching north to reinforce, proved traitor. He manned the hills round Dessie, and waited for the development of pre-arranged plans with the Italians. An Italian flag was to be run up on the Dessie "Gibbi" (palace), whereupon the Italians in some thirty planes would land, and liaise with Gabra Hayat. In 1924 had not Haille Selassie, with his Shoan army, defeated the Wallo tribe north of Debra Bahan? Memories in Ethiopia are not short. Thus and thus would Gabra Hayat and the Wallo people avenge themselves upon Haille Selassie and his Shoan army.

By subterfuge the Crown Prince at Dessie induced Gabra Hayat and three *dedjasmaches* to discuss the matter at the Gibbi, over a glass of "tej". The four, in their cups, were chained and sent by plane to a dungeon at Addis Abeba. *Opéra bouffe* once more!

The ambulance service completed the long trek to Addis Abeba, and "began all over again". There were delays, the exasperating delays of the East. The Government was out of touch with the Emperor. The Emperor's wireless set was reported to have been captured—bad news.

It was becoming obvious that the war would be over in a matter of weeks. Bevan and Peversoff left on the expiry of their contracts. Macfie had been sick unto death in the mountains, but he volunteered to go forward again. More delays, and then Macfie and the adjutant had to leave—both ill—one still ill.

X. LAST DAYS.

A small unit went forward: John Melly and Empey. At Debra Bahan the news was bad. Soon the little unit was left "in the blue", and beat a hasty retreat to Addis Abeba again.

The Emperor was reported to be in Addis Abeba, defeated.

No sooner had this news come through than there was a rumour that the Emperor had left with his court for Djibouti. Then rioting broke out. European civilians went to their respective legations. The British Ambulance established itself in a house in the city . . . and carried on. Lorries went out to

collect the wounded, and the work of such as John Melly and Empey was magnificent.

John Melly was out in the Ford V8. He stopped the car to pick up a road casualty. A looter, drunk, put a pistol through the window and shot Melly in the chest.

They took Melly to the British Legation. The odds were against him. Days later he died.

Ethiopia, for him, was a self-imposed duty. He knew of war, from the last months of 1918. He hated war, as only a fastidious man can hate war. And thinking over the things he said, there is a certainty that he had a premonition of death.

Another facet to the diamond—he was intensely, but unobtrusively religious. He had faith in his God—he had faith in his cause.

"Through John Melly the lives of hundreds were saved, the sufferings of thousands mitigated."

I would that could be his epitaph; and in turn he would wish it said of the gallant doctors who worked with him.

XI. ENVOI.

A voluble passenger from Australia counted the miles as he trod round the decks of an Orient ship bound for England.

"Where do you hail from?"

"Ethiopia."

"Gee, I thought I knew my Bible, but I just can't place it."


"It may interest you to know that a war has been in progress there for some months . . . that a European war was barely averted."

"Well, I can't understand why you did not join us at Singapore instead of Aden."

By what processes can such a mind reason? An interesting study. Questioning elucidated the authoritative information that Ethiopia was a province of Manchukuo.

Sic transit . . .

ECOLOGY IN PECKHAM.

 In an age of cheap superlatives it is rather difficult to explain adequately the extreme value of the Peckham experiment. In this district of London two doctors, one man and one woman, have for just over a year been running a literally unique club, the new Pioneer Health Centre.

There is no establishment like it. Therein lies the

difficulty of description. A health centre gives a picture of numerous doctors, white coats, sphygmomanometers, cubicles and rows of waiting members with statistical cards—in short something not unlike a hospital. The Centre, however, is quite unlike a hospital where treatment is given to cure or alleviate diseases, a meeting-place for ill-health, a converging point of the unfit. Organized on an entirely different conception by Dr. Scott Williamson and Dr. Innes Pearse, it is perhaps the first real scheme of preventive medicine ever set working in this country.

In the hospital the problem is to level up the negative point of health (*i. e.* disease) to the zero line (*i. e.* absence of noticeable disease). Here we have the infinitely more important process of raising the zero point to a positive state, true health, solid well-being. This is no new outlook, this awareness of the one-sidedness in the work of medical centres. What is new is the action taken by the two doctors.

The centre is a large modern club with lounges, restaurant, games tables, swimming-bath, gymnasium, children's room, theatre hall, and so on. The medical rooms are apart on the top floor, set off from the rest, significant of their subservience to normal healthy activities. The idea is roughly this:

1. To choose a district with a varied type of population.
2. To study the people as family groups in their own surroundings.
3. To give every opportunity for physical and mental development.

In 1926 the first tentative centre was opened, the spare work was done, and the experience was gained which lies behind the new modern specially constructed building at Peckham. This process and the underlying ideas are described in the book of the organizers, a work of unusual interest.*

CHOICE OF THE DISTRICT.

Only two regions of London, Peckham and Fulham, show a complete representative cross-section of the people. Lambeth and Kensington, for instance, are areas of a very specialized type of inhabitant. In Peckham and Fulham every income is equally represented, every class equally distributed; of the two Peckham was chosen as the more convenient. The people were circularized and told of the new club. Thus the first membership was obtained. For it was made clear that this was a club for human activity and not just a glorified clinic. It became a centre for leisure and life outside the usually restricted activities of the home.

* *The Case for Action.* (Faber & Faber.) 2s. 6d.

Membership was strictly limited to the inhabitants of Peckham.

STUDY WITHIN THE ENVIRONMENT.

The individual and his environment are inseparable. This is an emphatic point in the arguments of Dr. Pearse and Dr. Williamson. So we come to consider this analysis of the people as family groups. No separate members may join; only whole families are accepted. It is no good studying the one person, for this individual's life and outlook is closely bound up with his home and family. Again and again this is stressed in the book of the organizers. This may seem a very great stumbling-block to increased membership, actually it is not. Out of fifty cases where the family showed unwillingness to keep company with its one enthusiastic member, only one did not end by joining.

On enrolling, each member has a complete medical overhaul. Such an examination gives valuable data, which is filed for future use. But, more than that, it shows up the hidden states of disease or precursors of disease perhaps ten years before they would, in the ordinary course of events, reach a doctor's consulting-room.

Furthermore the Centre becomes a main part in the social life of members. Ample opportunity is afforded for making observations to supplement those gathered in the consulting-room. The doctors, moving freely among the people, are able to detect small signs, bad habits, physical or psychological maladjustments which seem trifling to the individual concerned (if he notices them at all), but whose cumulative effects would prove disastrous. But they do not in general give treatment. They act merely as discreet advisers, presenting the facts before the member and, if necessary, suggesting a course of action. The rest is left to the member.

To understand properly the spirit of the observation on members one should see the building. A large swimming-pool forms the centre, separated from the lounge and cafeteria, from the small theatre and gymnasium by glass walls. The whole is oddly suggestive of the glass cages of the entomologists, the laboratory in which the scientist sits back and watches the antics and habits of his specimens. This is hardly an exaggeration; the doctors keep an eye on the freely-moving members. They know them personally and can follow their reactions towards one another. It is not a case of sinister spying, nor of a prying attempt to control the members' movements. It is pure science—the notation of data before a working hypothesis can be formulated. Ecology on the human scale it may be called. The organizers are far removed from the alleged scientists who start a centre for the purpose of

putting a pet theory into practice. They wish to learn, and they admit that the whole is still an experiment, of which the result cannot yet be definitely foreseen.

THE BACKGROUND AND THE ACTION.

Thirdly there is the encouragement of physical and mental development. As the surroundings play such an important role, it is best to describe shortly the chief constructional features of the Pioneer Health Centre. It has been built after much planning and experimenting, and is entirely modern. Not modern in what one critic has referred to as the "Neo-Marzipan" style, but modern in the sense that it has been designed more with regard to function than to appearances.

As a result the first view is somewhat disappointing to the uninitiated. There are, for instance, no imposing front gates or wide stairway. Entry has to be diligently sought for by a side door, and the stairs are rather bare stone structures running up at each end of the building. For, after all, people do not live or are not sociable in front doors or staircases; these are merely means to an end. All the valuable space and creative energy has been given to the important parts, such as the lounge or gymnasium. And these are really magnificent with their wide spacious floors, high roofs and transparent walls. The walls separating the halls from the outside have the minimum of masonry; practically the whole is made of huge sliding windows which can be thrown open in fine weather. Hygienic and psychological care has been taken in every detail. In the cafeteria with its inexpensive and efficient system of self-service, the crockery has been specially designed, such as cup and saucer and plate combined, or machinery which automatically pours out just the right amount of milk or beer for one portion; the chairs and tables have been deliberately shaped to give the greatest comfort in the least possible room. The changing-rooms have sterilized towels in rolls of twenty-five yards, so arranged that no part is used twice, and the showers are unavoidable on the way to the baths. Shallow bays break up the angularity of the lounge, and encourage natural congregation into groups without suggesting the separation of people into cliques. Between the glass-lined cafeteria and lounge is the big swimming-pool, through which the sun's rays can penetrate to the most distant end of the floor. One can, for instance, be having a meal while looking through the swimming-pool into the lounge on the opposite side and so through the windows to the trees and sun outside. The games room, lecture hall and gymnasium are similarly glass-viewed from the main halls.

All this provides the background for the free living of

the members. Their activities are run by themselves; most of the clubs, dances, meetings and classes come from the initial suggestion and initiative of the members. The importance of the social side is immense. A district like Peckham can contain many hundreds of neighbours who never co operate or get to know each other. The club, by throwing these people together, not only widens their interest, but provides a solidarity, a centre for exchange of ideas, advice and experience.

The cost to each family is small—one shilling a week. In addition, children of the family who are over sixteen years old pay an extra weekly sixpence. There are no other costs, except in some cases for equipment.

MEDICAL OBSERVATIONS AND CONCLUSIONS.

Meanwhile the medical staff have been correlating and studying their data. The routine survey of each individual is two-fold. First a physiological examination in the laboratory. This gives a background for the second part, which is a consultation for general overhaul. After each member of the family has been so examined the whole family may be brought together for a general discussion on health matters. To these two a third more subtle examination may be added, that of watching the life of the person. Thus each member is surveyed from three overlapping points of view:

1. The materials of the body (laboratory tests).
2. The utilization of these materials in the working of the body (consultation room examinations and discussions).
3. The working of the individual as a human being (observation in the centre).

As every age, class and income are represented these data are of obvious value. They are so far not completely encouraging. Nutritional deficiency is very widespread—a chronic state in many people who have learnt to survive upon a minimum from birth upwards. This deficiency is transmitted to the children, and is not easy to eradicate. One can remedy it, but only temporarily, during treatment. It is not the deficiency which is the most important factor, but the failure to elaborate the mechanism for accumulating reserves of any substance. Out of 1200 people examined during the first eight months, about 400 were referred for treatment.

The Centre is working not only to alleviate these states of sickness, but mainly on the problem of finding the necessary equipment and technique for maintenance of the fitness of the environment for the family. The amenities of the Centre provide part of the answer. The most unlikely people take up gymnastics and

swimming with a regularity and enthusiasm that has amazed the doctors.

Again the new social intercourse is of immense value for the spreading of medical propaganda. In their book the organizers give a very good example. They wished to establish a reasonable outlook towards the immunization and protection against diphtheria. A general lecture to the members would have suggested compulsion, and the notion of conferring a favour on the doctors by taking advantage of the facilities offered.

One mother, however, was selected as a medium for the campaign. She was intelligent, and had some years previously lost one child from diphtheria. She was told how she could protect her other delicate child, and was left to talk it over with her husband. However, she did more; she related in her own words all she had learnt to her friends in the club rooms. So the news gradually spread through the mouths of the mothers, and within one month nearly all the children needing immunization had availed themselves of the opportunity their membership gave them.

As yet no conclusion will be given by Dr. Innes Pearce or Dr. Scott Williamson. They are still studying and encouraging their specimens, and will not admit that there has been time for any definite pronouncements.

The Centre is exhilarating in idea as it is in construction and detail. It is a biological revolution, a brilliant concept carried out with scientific perfection, an example of forethought and intelligence to the present students of medicine. It is now for them to investigate for themselves, draw their own conclusions and act accordingly.

A. S. PLAYFAIR.

STUDENTS' UNION.

ATHLETIC CLUB.

ANNUAL SPORTS.

The Athletic Club held its Fifty-third Meeting on Saturday, May 9th, at Winchmore Hill. The weather was fine but cold, and as a result the attendance was poor. The programme was run off to time, but the number of competitors taking part was disappointing.

The outstanding performers of the day were G. A. Beck, who won the quarter-mile, one mile, three miles, and half-mile handicap from scratch. In the shorter distances T. L. Benson won the 100 yards, 220 yards, and 120 yards Handicap from scratch. G. L. Way won the 120 yards, Throwing the Discus and Putting the Weight.

At the conclusion of the Meeting Mrs. Girling Ball presented the prizes, and we take this opportunity of expressing our thanks both to her and to those officials who helped to make the Meeting a success. The Club-Captain, D. B. Fraser, was unfortunately not able to compete as he had undergone a small operation.

RESULTS.

100 Yards: 1, T. L. Benson; 2, A. I. Ward. Time 10½ sec.
220 Yards: 1, T. L. Benson; 2, A. I. Ward. Time 24½ sec.
440 Yards: 1, G. A. Beck; 2, H. Bevan Jones. Time 56½ sec.
1 Mile: 1, G. A. Beck; 2, H. B. Lee. Time 5 min. 3 sec.
3 Mile: 1, G. A. Beck; 2, H. Bevan Jones. Time, 16 min. 4 sec.
120 Yards Handicap: 1, T. L. Benson (scratch); 2, G. A. S. Akeroyd (4 yds.).
880 Yards Handicap: 1, G. A. Beck (scratch); 2, H. B. Lee (40 yds.). Time 2 min. 8½ sec.
120 Yards Hurdles: 1, G. L. Way; 2, N. P. Shields. Time, 17½ sec.
High Jump: 1, D. S. Morris; 2 (equal), N. P. Shields, G. L. Way. Height 5 ft. 2 in.
Long Jump: 1, A. I. Ward; 2, G. A. S. Akeroyd. Distance, 21 ft. 6¼ in.
Putting the Weight: 1, G. L. Way; 2, A. R. P. Ellis. Distance, 34 ft. 3¼ in.
Throwing the Discus: 1, G. L. Way; 2, C. M. Dransfield. Distance, 75 ft. 9¼ in.
Throwing the Javelin: 1, A. R. P. Ellis; 2, C. M. Dransfield. Distance, 141 ft. 7¼ in.
Pole Vault: 1, N. P. Shields; 2, T. L. Benson. Height, 9 ft. 6 in.
Houseman's 100: 1, J. S. Cookson; 2, G. Dalley. Time 11½ sec.
Inter-Club Relay: 1, Rigger "B" XV; 2, Veterans; 3, Rigger "A" XV.

INTER-HOSPITAL SPORTS.

The United Hospitals Annual Sports were held on Wednesday, May 20th, at the Duke of York's Headquarters, Sloane Square, and resulted in a win for Guy's. There was an exciting struggle for second place. St. Bart's and St. Thomas's were just ahead of St. Mary's with the final event, the Relay Race, to be decided. Lovelock ran a splendid ¼ mile for St. Mary's, giving them a 20 yard lead, which the St. Mary's team held to the finish in spite of a gallant effort by the Bart's team (G. A. Beck, H. Bevan Jones, T. L. Benson and A. I. Ward), which ran into second place.

The Final Placings for the Inter-Hospitals Challenge Shield were: 1st, St. Mary's (45 pts.); 2nd, St. Mary's (29 pts.); 3rd (equal, St. Bart's and St. Thomas's (28 pts.).

A. K. P. Ellis in the Javelin Event with a record Throw of 161 ft. 6¼ in. was awarded the Princess Marie Louise Cup for the best individual performance of the day.

RESULTS.

100 Yards: 1, E. I. Davis (Guy's); 2, H. J. Keigwin (St. Mary's); 3, A. I. Ward (Bart's). 3 yds.; 1 yd. Time, 10½ sec.
High Jump: 1, I. O. Fielding (St. Thomas's), 5 ft. 3¼ in.; 2, D. S. Morris (Bart's), 5 ft. 1¼ in. (after jump-off); 3, L. C. B. Revell (Guy's), 5 ft. 1¼ in.
¼ Mile: 1, D. M. Douglas (Guy's); 2, A. Watts (Westminster); 3, A. W. Frankland (St. Mary's), 15 yds.; 8 yds. Time, 2 mins. 4½ sec.
220 Yards: 1, E. I. Davis (Guy's); 2, R. W. Harvey (Guy's); 3, H. I. Keigwin (St. Mary's). 7 yds.; 4 yds. Time 22½ sec.
Long Jump: 1, E. I. Davis (Guy's), 21 ft. 4¼ in.; 2, A. I. Ward (Bart's), 20 ft. 10 in.; 3, P. Harvey (Guy's), 20 ft. 3 in.
120 Yards Hurdles: 1, P. H. Garrard (Middlesex); 2, E. R. Keyworth (St. Mary's); 3, J. O. Fielding (St. Thomas's). 2 yds.; bad throw. Time, 16½ sec.
Throwing the Javelin: 1, A. R. P. Ellis (Bart's), 161 ft. 6¼ in. (record); 2, C. M. Dransfield (Bart's), 141 ft.; 3, S. Ras (St. Mary's), 140 ft. 2 in.
440 Yards: dead-heat, R. A. Palmer (King's) and G. O'Gorman (Guy's); 3, F. R. Park (London). Time 2½ sec.
Putting the Weight: 1, A. J. Martin (St. Thomas's), 41 ft. 9¼ in. (record); 2, B. L. Prendergast (St. Mary's), 40 ft. 0¼ in.; 3, C. J. Hodson (St. Mary's), 35 ft. 9 in.
440 Yards Hurdles: 1, T. Norman (St. Thomas's); 2, K. N. Lloyd (London); 3, R. A. Palmer (King's). 12 yds.; same. Time, 39 sec.
Pole Vault: 1, N. P. Shields (Bart's), 10 ft.; 2, A. Davis (St. Thomas's) 8 ft. 6 in.; 3, C. M. Squire (St. Mary's), 8 ft. 3 in.

1 Mile: 1, J. E. Lovelock (St. Mary's); 2, C. I. Murphie (King's); 3, A. E. J. Etheridge (Guy's). 12 yds.; 15 yds. Time, 4 min. 42½ sec.

Tug-of-War: St. Thomas's beat Guy's, 2—0.

1 Mile Medley Relay: 1, St. Mary's (J. E. Lovelock, H. J. Keigwin, C. N. Gosse and D. S. Foster); 2, Guy's; 3, Bart's. 14 yds.; 10 yds. Time 3 min. 48½ sec.

3 Miles: 1, C. I. Murphie (King's); 2, A. E. J. Etheridge (Guy's); 3, G. A. Beck (Bart's).

ST. BARTHOLOMEW'S HOSPITAL ATHLETIC CLUB v. READING UNIVERSITY ATHLETIC CLUB.

Run at Reading on June 22nd.

RESULTS.

100 Yards: 1, A. Wallace (Reading); 2, K. Butler (Bart's); 3, T. L. Benson (Bart's). Time, 10·2 sec.
220 Yards: 1, A. I. Ward (Bart's); 2, T. L. Benson; 3, C. H. Carlett (Reading). Time, 23·4 sec.
440 Yards: 1, J. W. Perrott (Bart's); 2, G. Halliday (Reading); 3, K. Butler. Time, 54·2 sec.
1 Mile: 1, G. A. Beck (Bart's); 2, J. B. Shearn (Reading); 3, C. M. Denyer (Reading). Time, 4 min. 49·6 sec.
High Jump: 1, J. B. Shearn; 2, A. I. Ward; 3, G. L. Way (Bart's). Height, 5 ft. 2 in.
Long Jump: 1, A. I. Ward; 2, T. L. Benson; 3, J. B. Shearn. Distance, 21 ft. 5 in.
Throwing the Javelin: 1, J. D. Wright (Reading); 2, I. McFarlane (Reading); 3, G. Dalley (Bart's). Distance, 144 ft. 11 in.
Putting the Weight: 1, G. L. Way; 2, J. D. Wright; 3, I. McFarlane. Distance, 35 ft. 4 in.
Throwing the Discus: 1, J. D. Wright; 2, I. McFarlane; 3, G. L. Way.
1 Mile Relay: 1, Bart's (G. A. Beck, ¼ mile; A. I. Ward, 220 yds.; K. Butler, 220 yds.; J. W. Perrott, 440 yds.); 2, Reading.

SWIMMING CLUB.

The United Hospital Swimming Club Gala was held on July 4th in the Marshall Street Baths. As usual, Bart's had a promising team entered, which succeeded in retrieving the swimming cup from St. Mary's, last year's winners.

In the diving, D. G. Evans made a strong bid, coming in second, by a small margin, to Parsons (Westminster), who won last year.

In the 100 yards free-style, R. I. C. Sutton and I. C. Newbold came first and second respectively; and Sutton completed his double again by winning the 50 yards; Guy's gaining second and third places, Newbold being fourth. In the six aside team race Guy's, with a very even strong team, beat us, Bart's coming second. Sutton, Newbold, T. O. McKane and H. G. Singer swam very well to win the four aside Relay Race from Guy's. The Medley Race we held, too, Newbold and Vartan swimming backstroke, C. M. Dransfield and Sutton breast-stroke. Sutton made a fine burst to win a close finish, with St. Mary's second.

The final points were Bart's 97, Guy's 60, St. Mary's 33; a sound margin for Bart's to regain the cup.

The Nurses' Races provided keen struggles, amid vociferous support, and it seems a pity that Bart's are unable to enter a team in that sphere. Members of the Greenwich Swimming Club aroused great applause by their hair-raising aerobic diving, and their final comic "flight" was much appreciated.

Bart's supplied four of the U.I.C.S. polo team, Sutton, Newbold, Vartan and Dransfield, who beat the Metropolitan Police handsomely.

The Inter-hospital Water-polo League has ended in the invidious position of a draw between Bart's, Mary's and Guy's. It is hoped that a more satisfactory conclusion will be achieved by playing it out in September.

In conclusion, we should like to offer our hearty congratulations to R. J. C. Sutton on captaining the British Water-Polo team at the Olympic Games in Berlin.

COLLEGE APPEAL FUND.

SUBSCRIPTIONS TO DATE.

	£	s.	d.	*
Staff	13,310	6	4	(80)
Demonstrators	1,774	17	0	(72)
Students	1,254	13	1	(325)
Old Bart.'s men:				†
‡Bedfordshire	45	18	6	(9)
‡Berkshire	143	3	0	(16)
‡Buckinghamshire	82	4	0	(15)
‡Cambridgeshire	194	6	0	(48)
‡Cheshire	6	16	6	(3)
‡Cornwall	22	12	0	(8)
‡Cumberland	5	0	0	(1)
‡Derbyshire	10	14	0	(4)
‡Devonshire	575	1	0	(54)
‡Dorset	77	11	6	(14)
‡Durham	17	7	0	(4)
‡Essex	267	3	6	(23)
‡Gloucestershire	257	5	6	(29)
‡Hampshire	1,517	4	6	(59)
‡Herefordshire	17	12	0	(4)
‡Hertfordshire	92	18	0	(19)
‡Huntingdonshire	5	5	0	(1)
‡Isle of Wight	191	13	0	(13)
‡Kent	588	5	0	(72)
‡Lancashire	127	14	6	(16)
‡Leicestershire	142	0	0	(8)
‡Lincolnshire	61	9	0	(18)
‡Middlesex	497	14	0	(34)
‡Norfolk	178	0	6	(21)
‡Northamptonshire	59	14	6	(6)
‡Northumberland	101	1	0	(2)
‡Nottinghamshire	24	3	0	(5)
‡Oxfordshire	231	15	0	(22)
‡Rutland	1	1	0	(1)
‡Shropshire	38	1	0	(10)
‡Somersetshire	2,837	6	4	(28)
‡Staffordshire	194	18	0	(6)
‡Suffolk	331	0	6	(26)
‡Surrey	523	18	0	(92)
‡Sussex	752	4	6	(63)
‡Warwickshire	214	19	0	(24)
‡Westmorland	2	10	0	(1)
‡Wiltshire	1011	12	0	(3)
‡Worcestershire	161	1	0	(2)
‡Yorkshire	350	3	6	(29)
Wales	69	12	0	(120)
London	6,051	3	2	(424)
Channel Islands	20	0	0	(2)
Scotland	15	5	0	(5)
Abroad	119	1	0	(13)
South Africa	376	13	6	(20)
Canada	114	3	6	(8)
East Africa	87	12	0	(10)
West Africa	146	10	0	(3)
India	207	12	0	(13)
Ireland	25	4	0	(4)
North Africa	1	0	0	(1)
North Borneo	10	10	0	(1)
Australia	122	2	0	(6)
China	52	8	4	(9)
Siam	10	0	0	(1)
France	50	0	0	(1)
British West Indies	65	8	0	(7)
Straits Settlements	7	1	0	(3)
New Zealand	54	14	6	(19)
Services	71,398	9	7	(509)
Others	17,090	16	0	
Lord Mayor's Appeal	8,000	0	0	
Funds of College	20,000	0	0	
Value of Building	20,000	0	0	
Loan	4,061	0	0	
Stock Sold				
	£178,950	14	4	

* Number of Bart.'s men subscribing. † Number of Bart.'s men in County. ‡ Counties with Secretaries.

REVIEWS.

TEXTBOOK OF PATHOLOGY. By Sir ROBERT MUIR, F.R.S. Fourth edition. (London: Edward Arnold, 1936.) Pp. vii + 994. Price 55s.

The industry of pathologists at an age when they might well be expected to be relaxing from their scientific work is remarkable. At the beginning of this year Prof. Ludwig Aschoff, at the age of 70, issued the eighth edition of his *Pathologische Anatomie*, and now Sir Robert Muir is producing the fourth edition of his *Textbook* at 72. And this is right, for the standard textbooks should be written by men of experience who will not be carried away by the modish theories of the day, but can assess fairly the merits of new findings and ideas in relation to those abandoned in the past. Of course there is the danger that Osler spoke of in the "Fixed Period" . . . "on the contrary, often the mind grows clearer and the memory more retentive, but the change is seen in a weakened receptivity and in an inability to adapt oneself to an altered intellectual environment . . ." But Sir Robert Muir has followed the good example of Herippus and "W.O." himself, and in almost every chapter of this new edition of the *Textbook* will be found a mention of some very recent advance in pathology.

The arrangement made in the previous editions, of a shortish section on general pathological processes and the rest of the book dealing with the special pathology of the various systems, has been maintained, but the whole book has been virtually rewritten since the edition of 1933. Two excellent features are the references and illustrations. Instead of the almost entirely useless (to the student) German habit of giving at the end of each chapter an enormous list of references with no distinction as to merit, Sir Robert Muir just gives an occasional reference to a really good article or book in which the subject is dealt with more fully and which the student can read if he is interested; further, in the index, heavy type is employed to indicate the main description. There are nearly 600 illustrations, and they are all excellent photographs, either of specimens or microscopic preparations, and although photographs may not look so elegant as the more fanciful drawings, yet they are accurate representations of what one sees at the post mortem room or under the microscope, and therefore the more useful.

In the text there are many points to be commended. In the general pathology the section on pigmentation is excellent, including a description of the admirable experiments performed by Sir Robert Muir and Dr. Niven in 1935, demonstrating the intracellular formation of haematoidin in tissue macrophages. The theories and experimental work in tumour-formation is briefly but clearly dealt with, and a wise section on the relation of tumours to radiation points out that malignant cells are no more sensitive than a normal cell of the same degree of differentiation.

In the special pathology clinical points are often brought in in a practical manner, such as the inclusion of electrocardiograms when discussing lesions of the conducting septum. Pulmonary tuberculosis, so often treated in a muddled way, is made very clear here, and the views of the Continent and English schools as to the healed Ghon's focus fairly put. The terminology in nephritis corresponds with that of the simplified Russell classification, and it is to be hoped that such terms as "large white kidney", which is never mentioned in this textbook, will soon be forgotten altogether. The sections on the nervous system and endocrine glands are particularly well done, and even such recent work as that of Crooke on the hyaline change found in the pituitary basophilic cells in Cushing's syndrome is mentioned. Naturally in the revision of so large a book occasional sections get left high and dry, which explains the fact that in the section on endotheliomata, are grouped together true endotheliomata, mesotheliomata, certain of the reticulosarcomas and meningiomas; elsewhere the survival of the term "myeloid sarcoma" for the giant-cell tumour of bone or osteoclastoma. Further, there are one or two misprints, such as "plegmasia" on p. 877, which will doubtless be corrected in the next issue.

One is often asked to recommend a good book on "Surgical Pathology". There is no such thing as "surgical pathology". It is a survival of the days before pathologists as such existed, and pathology was taught, often excellently, by clinicians. Naturally there was a subdivision between the surgeons and the physicians, and this period produced such masterpieces as Paget's *Surgical Pathology*, but nowadays a student will find a better account of wound healing, repair of bone and disease of the breast in Sir Robert Muir's textbook than any book labelled "Surgical Pathology".

A complaint sometimes heard of the older editions of this textbook was that it was heavy reading, and though it is true that it

was not that slick showmanship of style of many of the trans-Atlantic books, yet it is infinitely sounder and is written and spelt in English, which cannot be said of most of the American ones. Many students will be starting their clinical work next month, and to them and anyone else desiring a first-class book on pathology, Sir Robert Muir's textbook can be strongly recommended.

APPLIED PHYSIOLOGY. By SAMSON WRIGHT, M.D., F.R.C.P. Sixth edition. (Humphrey Milford, Oxford University Press, 1936.) Pp. 686. Figs. 282. Price 20s.

It is two years since the last edition of *Applied Physiology* appeared, though there have been two reprints of the fifth edition in the interval. Physiology probably advances with greater strides than any of its sister subjects; indeed, it has been said that a text-book of physiology must be out of date before its publication. This may be an exaggeration, but a glance at the preface to this new edition will show some of the "recent advances" that have been incorporated in it. Mainly these centre round localization of function in the brain, locomotion, with special reference to the reproductive cycle, certain aspects of the cardio-respiratory mechanisms and the chemistry of muscle.

The book continues to increase in size—invariably perhaps, but nevertheless a pity—and there are nearly a hundred more (and mostly excellent) diagrams and figures. The author continues to stress the applied nature of the physiology and he may do so with justification, for it is no secret that this book is almost as valuable a text-book of medicine as it is of physiology. He pleads for closer co-operation between physiologists and clinical teachers, which should be easy to attain in a teaching hospital.

We give this new edition our strongest recommendation, firmly convinced that as a text-book of physiology it is in a class by itself.

RECENT BOOKS AND PAPERS BY ST. BARTHOLOMEW'S MEN.

- BLOMFIELD, DOUGLAS, M.B. See SLOT and BLOMFIELD.
BRODBER, H. S., B.M. (and CULLINAN, E. R., M.D.). "A Simple Test for Latent Jaundice." *Lancet*, May 30th, 1936.
BURROWS, HAROLD, C.B.E., M.B., F.R.C.S. *The Muscular System*. 3rd edition. London: Faber & Faber, 1936.
CASTLEDEN, L. I. M., M.D. (FLETCHER, H. N., and L. I. M. C.). "Three Cases of Duodenal Diverticulum Removed by Operation." *British Journal of Surgery*, April, 1936.
COCKAYNE, E. A., M.D., F.R.C.P. "Pyrexia of Obscure Origin in Children." *Clinical Journal*, May, 1936.
CULLINAN, E. R., M.D., F.R.C.P. See BRODBER and CULLINAN.
FISHER, A. G., TIMBRELL, M.C., F.R.C.S. "The Problem of Repair and Regeneration of the Semilunar Cartilages." *Lancet*, June 13th, 1936.
FREMANTLE, SIR FRANCIS, O.B.E., M.P., M.D., F.R.C.P., F.R.C.S., D.P.H. "The Doctor in Parliament." *British Medical Journal*, July 4th, 1936.
GAUVAIN, SIR HENRY, M.D., M.Chir., F.R.C.S. "Treatment of Bone and Joint Tuberculosis." *Tubercle*, May, 1936.
GORDON, MERVYN H., C.M.G., D.M., F.R.S. "Etiology of Lymphadenoma: Sensitized Vaccine of the Elementary Bodies." *Lancet*, July 11th, 1936.
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HAMMOND, T. E., F.R.C.S. *Vitality and Energy in Relation to the Constitution*. London: H. K. Lewis, 1936.
HARTLEY, SIR PERCIVAL HORION-SMITH, C.V.O., M.A., M.D., F.R.C.P. (and ALDRIDGE, HAROLD RICHARD, M.A.). *Johannes de Mifield of St. Bartholomew's, Smithfield: His Life and Works*. Cambridge University Press, 1936.
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KNIGHT, G. C., M.B., F.R.C.S. (and SLOANE, DAVID). "Intestinal Strangulation." *British Journal of Surgery*, April, 1936.
MCDONAGH, J. E. R., F.R.C.S. *The Common Cold and Influenza and their Relationship to Other Infections in Man and Animals. The Nature of Disease. Annual Reports for the Years 1934 and 1935*. London: William Heinemann, 1936.

- MAXWELL, JAMES, M.D., F.R.C.P. "Analysis of the Asthmatic Patient." *British Medical Journal*, May 2nd, 1936.
— "Intestinal Tuberculosis." *Tubercle*, May, 1936.
MYERS, BERNARD, C.M.G., M.D., F.R.C.P. "Purpura Hamorrhagica: Splenectomy." *Proceedings of the Royal Society of Medicine*, May, 1936.
NAPIER, L. EVERARD, M.R.C.S., L.R.C.P. "Technique of Spleen Puncture." *Lancet*, July 18th, 1936.
— (and DAS GUPTA, C. R.). "Haematological Studies in Indians. Part V: Red Blood-cell Measurements." *Indian Journal of Medical Research*, April, 1936.
NORRISH, R. E., F.R.C.S. "Acute Ilio-Psoas Abscess." *British Journal of Surgery*, July, 1936.
OLDFIELD, JOSIAH. *The Beauty Aspect of Life and Health*. Chapman & Hall, 1936.
PAYNE, REGINALD T., M.D., F.R.C.S. "Treatment of Varicose Diseases of the Lower Limbs." *British Medical Journal*, May 2nd, 1936.
POWER, SIR D'ARCY, K.B.E., F.R.C.S. "Ipsissima Verba. IX: Reid's Base Line." *British Journal of Surgery*, April, 1936.
— "Ipsissima Verba. X: A Case of Acute Perforative Appendicitis." *British Journal of Surgery*, July, 1936.
RAVEN, R. W., F.R.C.S. "The Treatment of Hemorrhoids." *Medical Press and Circular*, April, 1936.
ROXBURGH, A. C., M.D., F.R.C.P. "Two Cases of Peculiar Splitting of the Nails." *Proceedings of the Royal Society of Medicine*, April, 1936.
— "Eczema and its Treatment." *Practitioner*, May, 1936.
SCOTT, H. HAROLD, M.D., M.R.C.P., D.T.M.H.Camb. "Tuberculosis with Relation to Meningitis, Particularly as Regards Children." *Tubercle*, May, 1936.
SLOT, GEKALD, M.D., M.R.C.P., D.P.H., and BLOMFIELD, D., M.D. "Intermittent Diarrhoea Associated with *Bacillus Asiaticus*." *Lancet*, May 16th, 1936.
— (and DERILLE, P. M., M.R.C.P.). "Association of *B. coli* Infection and Rheumatoid Arthritis." *British Medical Journal*, June 6th, 1936.
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SOPHAN, JOHN, M.R.C.P., F.R.C.S. "The Physiology of Menstruation, Normal and Abnormal." *Clinical Journal*, May, 1936.
STUART-HARRIS, C. H., M.D., M.R.C.P. (WILSON SMITH, M.D., and C. H. S.-H.). "Influenza Infection of Man from the Ferret." *Lancet*, July 18th, 1936.
THEOBALD, G. W., M.D., F.C.O.G. "Centres in the Hypothalamus Controlling Menstruation, Ovulation, Pregnancy and Parturition." *British Medical Journal*, May 23rd, 1936.
WALKER, KENNETH M., M.B., F.R.C.S. "The Present Position of Prostatic Surgery." *Clinical Journal*, May, 1936.
WARD, R. OGDEN, M.Ch., F.R.C.S. See DONALDSON, CADE, HARMER, WARD and EDWARDS.
WATKYN-THOMAS, F. W., F.R.C.S. "The Treatment of Petrositis." *Proceedings of the Royal Society of Medicine*, January, 1936.
WEBER, F. PARKES, M.D., F.R.C.P. "A Note on the Supposed 'Calcinosis' of the Scrotum." *British Journal of Dermatology and Syphilis*, June, 1936.
— "Haemorrhagic Telangiectasia of the Osler Type: Telangiectatic Dysplasia." *British Journal of Dermatology and Syphilis*, April, 1936.
— (and SCHWARZ, E., M.D.). "Inherited Large Parietal Foramina." *British Journal of Dermatology and Syphilis*, December, 1935.
— (and SCHULTER, A., M.D.). "Systematised Interlobular (Portal) Infiltration of the Liver with Lymphocyte-like Cells." *Lancet*, May 16th, 1936.
WITTS, Prof. L. J., M.D., F.R.C.P. "The Paroxysmal Hemoglobinurias." *Lancet*, July 18th, 1936.
— "The Prophylaxis and Treatment of Agranulocytosis." *British Medical Journal*, May, 23rd, 1936.
— and LEVITT, W. M., M.D. "Treatment of the Leukemias." *British Medical Journal*, April 11th, 1936.
WOOD, W. DEXTON, M.D., M.R.C.P. "An Example of Intrathoracic Dermoid Cyst." *Tubercle*, May, 1936.
YATES, A. LOWNDSE, M.C., M.D., F.R.C.S. "Myxochondroma of the Nasopharynx." *Proceedings of the Royal Society of Medicine*, December, 1935.
— "The Anatomy of the Middle Ear." *Proceedings of the Royal Society of Medicine*, May, 1936.

EXAMINATIONS, ETC.

University of Oxford.

The following degrees have been conferred:

B.M.—Dawson Grove, A. W., Fraser, D. B., Morse, P. W., Tuckwell, E. G.

University of Cambridge.

The following degrees have been conferred:

M.D.—Evans, I. P. J., Nicholson, B. C.

M.B.—Buckland, H. S., Daniel, T. M., Paterson, J. F.

B.Chir.—David, J. E. A., Fraser, A. C., Maddox, F. C., Newbold, J. C., Parks, J. W., Swain, R. H. A.

University of London.

M.D. Examination, July, 1936.

Branch I (Medicine).—Marwood, S. F., Roberts, L. O.

First Examination for Medical Degrees, July, 1936.

Anderson, A. W., Bates, M., Beeston, J., Bell, R. C., Bhargava, K. P., Brown, K. T., Cooper, C. F., Evans, J. W. G., Harland, D. H. C., Hogarth, R. C., Klidjian, A., Long, D., Loughborough, J. D., Lyon, W. C., McCready, I. A. J., MacDougall, I. P. M., Morris, D. S., O'Carroll, C. B., Purcell, S. D., Rosten, M., Sandiford, R. H., Schofield, R. D. W., Simmonds, W. B. G., Sinha, K. N., Thompson, M. R., Vickery, K. O. A., Vincent, H. R., Walters, F. J. H., Webb, E. J. E., Wild, A. M., Williams, G. T. S., Williams, T. M., Winocour, G., Zibbi, J. H. S.

Second Examination for Medical Degrees, July, 1936.

Part I.—Acres, G. C., Bachmann, P. A., Beeston, J., Bernstein, I. J., Boyle, D., Bromley, W. A., Butterworth, R. F., Cooper, E. J. F., Cooper, R. S., Davies, T. M., Ellis, R. E., Golden, M. B. H., Hambly, I., Hinds, S. J., Horton, J. A. G., Jackson, B., Jacobs, J., John, A. O., Johnson, P. F., King, H., McNair, I. E. L. J., Meyer, I. H., Miller, J. E., Morgan, J. E., Phillips, H. T., Slowe, J. J., Stone, P. H. D., Sullivan, B., Thomas, E. G., Trevan, D. J., Upson, H. M., Vickery, K. O. A., Williams, G. T. S.

Royal Colleges of Physicians and Surgeons.

The following Diplomas have been granted:

D.P.H.—Cooper, W. F.

D.T.M. & H.—Fernandes, H. P., Nairac, M. L.

D.F.M.—Burrows, T. E., Cutburt, T. M.

D.A.—Rice, R. A. C.

British College of Obstetricians and Gynaecologists.

The following has been admitted to the Membership:

Jeaffreson, B. L.

The following have been elected to the Membership:

Abernethy, D. A., Rosser, E. ap I., Sugden, E. C.

Conjoint Examination Board.

Final Examination, July, 1936.

The following students have completed the Examinations for the Diplomas of **M.R.C.S.**, **L.R.C.P.**, and have had the Diplomas conferred on them:

Baker, F. J. S., Beckett, F. G. A., Bickford, R. J., Brentnall, G. C., Butt, J. T. H., Cobb, W. A., Cochrane, J. W. C., Dale, E. F., Dubash, J. J., Fraser, D. B., Gomez, A., Hamiduddin, K., Hollands, F. G., Kinnear, A. I., Ledward, A. D., Newbold, J. C., Rosten, B. M. D., Sarwal, I. C., Shemilt, W. P., Smyth, E. H. J., Stoddart, W., Taylor, W. J. J., Wright, P. M.

Society of Apothecaries of London.

Final Examination, July, 1936.

Medicine and Forensic Medicine.—Bird, G. E. N.

Midwifery.—Mills, C. W.

CHANGES OF ADDRESS.

BRIGGS, G. D. S., 128, Harley Street, W. 1. (Tel. Welbeck 4368.)

CALVERLEY, J. E. G., 36, Hurlingham Court, S.W. 6.

CAPPER, W. M., Bristol Royal Infirmary, Bristol.

DARLEY, W. W., 334, Wickham Road, Shirley, Croydon.

DARMAVY, E. M., 8, St. Leo Mansions, Flood Street, Chelsea, S.W. 3. (Tel. Flaxman 6004.)

GRANT, M. F., Bredon House, Bredon, Tewkesbury.

APPOINTMENTS.

CAPPER, W. M., F.R.C.S., appointed Resident Surgical Officer to the Bristol Royal Infirmary.

CLARK, A., M.D., M.R.C.P., appointed Tuberculosis Officer to the County of Dorset.

BIRTHS.

CROOKS.—On July 30th, 1936, at 46, Harley Street, W. 1, to Irene, wife of James Crooks, F.R.C.S. a daughter.

DODD.—On June 28th, 1936, to Cicely (née Tweddell), wife of Dr. T. A. Dodd, Tynham House, Christchurch, Hampshire—a son.

LITTLE.—On August 12th, 1936, at The Shearwood Road Nursing Home, Sheffield, to Megan (née Evans-George), wife of George S. R. Little, M.R.C.S., L.R.C.P., of Worksop, Notts—a son (David).

MARRIAGES.

HOGG—MOULSDALE.—On July 30th, 1936, in London, James Cecil Hogg, F.R.C.S., to Mollie Mouldale, daughter of the late James Dalby and of Mrs. Dalby, of Rock Ferry, Cheshire.

HULBERT—GRAZEBROOK.—On July 30th, 1936, at St. George's, Hanover Square, by the Rev. A. P. Shepherd, D.D., assisted by the Rev. H. C. Montgomery-Campbell, Norman George, younger son of Lt.-Col. and Mrs. J. G. Hulbert, of Hartley Wintney, Hants, to Joan, elder daughter of Mr. and Mrs. Owen Grazebrook, of Hingley House, near Dudley.

KERR—DREWITT.—On August 10th, 1936, quietly, at St. Stephen's Church, Twickenham, John Norman Kerr, M.D., to I. V. Evelyn E. Drewitt, daughter of Mr. and Mrs. Drewitt, of Twickenham Park, and formerly of Ravine House, Ravine Road, Bournemouth.

MOYVAGH—DINWIDDIE.—On July 11th, 1936, at the Priory Church of St. Bartholomew-the-Great, Dr. Digby William Moyvagh, eldest son of Mr. W. J. Moyvagh, of Nairobi, Kenya, and Mrs. Moyvagh, of Sydenham, to Juanita Isabel Rhind, only daughter of the late Mr. Robert Dinwiddie and Mrs. Dinwiddie, of The Ridgeway, Sutton, Surrey.

DEATHS.

CURL.—On August 13th, 1936, in London, Sydney W. Curl, M.D., F.R.C.P., of Cambridge Lodge, Colchester, aged 62.

GORE.—On August 12th, 1936, suddenly, at Kingston, Cherry Garden Avenue, Folkestone, Alfred Joseph Gore, M.R.C.S., L.R.C.P., aged 73.

HAMER.—On July 7th, 1936, at 55, Dartmouth Park Hill, N.W. 5, Sir William Heaton Hamer, M.A., M.D., F.R.C.P., Medical Officer and School Medical Officer, L.C.C., 1911 to 1925, aged 74.

TRINDER.—On August 2nd, 1936, at a nursing home, Dr. Alfred Probus Trinder, aged 78.

WEST.—On July 18th, 1936, Lt.-Col. Richard Milhorne West, D.S.O., O.B.E., M.D., of Wootton, I. of W., aged 69.

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, E.C. 1.

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