Wecker, he believed, was the inventor. He had so far seen no disadvantages from the use of irrigation.

Mr. GRANGER (Chester) objected to the form of instrument used by Mr. Lee, as being more difficult to keep clean than a simple bottle, the contents of which can so satisfactorily be removed by syphon action.

Mr. LEE, in replying, said he was careful to pass an antiseptic solution through the tube before using. In reply to Dr. Bell, Mr. Lee said he had reported the first six cases on which he had operated, and without any drawback whatever; he had also done three cases subsequently to the completion of the table.

ON THE RELATION OF HEADACHE TO THE CONDITION OF THE EYES.

By C. HIGGINS, F.R.C.S.,
Ophthalmic Surgeon to Guy's Hospital.

HEADACHE arising from ocular causes is very frequently met with. Ophthalmic surgeons have again and again called attention to the subject; but as yet the bulk of the profession do not appear to recognise the necessity for a thorough examination of the eyes in all cases of obstinate head-pain.

As a rule, when a case of ocular headache comes before the ophthalmic surgeon, the patient has undergone a protracted course of medical treatment, having been looked upon as nervous, plethoric, bilious, or anæmic. Indeed, in some cases, after having "suffered many things of many physicians," a patient has been pronounced the subject of incurable brain-disease, when all that was necessary to effect a cure was a properly selected pair of spectacles.

The symptoms of ocular headache are fairly well marked; they nearly always begin in early life, though a reference to any ophthalmic surgeon's case-book will show that, in many instances, the cause has never been discovered till late on in life. "I have had headaches as long as I can remember," or "I have had headache off and on ever since I first went to school," is what we are frequently told. The most marked symptom is that the headache is either brought on, or made worse, by reading or working. The object of this paper is more especially to call attention to ocular headache as occurring at the time of life which is mostly taken up by education, and I thought this occasion appropriate, as Brighton seems to be a favourite place of education. The ocular conditions causing headache are anomalies of refraction (hypermetropia and myopia), astigmatism, and insufficiency of the internal recti muscles. All these conditions are easily remedied by optical means, but are quite beyond the reach of medical treatment. I have looked over two of my case-books, containing rough notes of 1,072 cases, and find that 31, or nearly 3 per cent., suffered from obstinate headache which appeared to be due to the condition of the eyes. The following five cases will serve as illustrations.

Simple Hypermetropia.—Ernest W., aged 10, came to me on April 3rd, 1883. He had suffered from headache for four months, and had lately noticed that the headache was made worse by reading. He was thought to have some brain trouble. Hypermetropia (manifest) $\frac{1}{2}$ was found in both eyes, and he was ordered +30 for reading, etc. On January 17th, 1884, he consulted me again for phlyctenular ophthalmia. He had had no headache since he got the glasses.

Simple Hypermetropic Astigmatism.—Miss N. B., aged 14, came to me on April 26th, 1883. She had suffered from headache for some years. She had always found the headache much aggravated by reading or doing any work. She was ordered +36 cyl. for all purposes. On May 28th of the same year a letter was received from the child's father, from which the following is an extract: "The glasses you ordered for her we got.....and from that time her headaches have entirely disappeared."

Hypermetropia: Periodic Squint.—Miss H. D., aged 6½, came to me in January, 1884. She had periodic squint in the left eye, and complained of headache. The ophthalmoscope showed hypermetropia of 2 D in the right eye, and 3 D in the left. She had manifest hypermetropia of 1.50 D in both eyes. She was ordered +1.50 for reading, etc.; nine months later +1.75 was ordered. On July 12th, 1886, the squint was scarcely noticeable, and she had never had a headache since the glasses were ordered.

Hypermetropia: Insufficiency of Internal Recti Muscles.—Charles E., aged 11, seen May 5th, 1884, complained of headache and double vision at times. Manifest hypermetropia $\frac{1}{2}$ was found, and either eye diverged when covered; both were unsteady when trying to fix

an object at 10 inches or nearer. Ordered +40 decentered inwards for reading, etc. The use of these glasses cured both the headache and the diplopia, but both returned if they were not used.

Compound Myopic Astigmatism.—Arthur E., aged 13, was seen on January 17th, 1884. He had had headache for twelve months, always made worse by reading. In each eye there was myopia $\frac{3}{4}$, with myopic astigmatism $\frac{1}{2}$. He was ordered —20 spherical —30 cylindrical for both eyes for reading, etc. He did not care to have glasses for distance. On September 4th in the same year, the myopia was the same, but he had had no headache since he used the glasses.

I have said that treatment by optical means is all that is necessary in these cases. This is not quite all, however. In the case of children and young adults, more especially young ladies, we should inquire into the methods of education. Many of our patients, I have no doubt, suffer severely from the strain of many hours' work, which, with or without glasses, is more than their eyes or brains can bear. Here is the daily programme of a "young ladies' finishing school" given me by a late pupil: Rise at 6 A.M.; work from 7 to 8.30; breakfast; work from 9.30 to 12 or 12.30 on alternate days; go out for a walk from 12 or 12.30 till 1; dinner; work from 2 to 5; tea; work from 6 to 8.30 or 9; go to bed at 9, or soon after; Saturday a half holiday. With the exception, therefore, of Saturday, the daily routine was not less than nine hours of work, and not more than one for exercise. Such a system requires no comment from me, and will, I think, be condemned by all reasonable beings.

Mr. CRITCHETT ventured humbly to suggest that general physicians should seek the aid of the ophthalmic surgeon at an early period in cases of persistent headache. He called attention to the importance of seeking whether there were insufficiency in these cases. Professor Liebreich had been our pioneer in this direction, and he had been well seconded by Dr. Landolt, of Paris. The former relied chiefly on the use of prisms, and the latter had recourse to operation.

ON A CASE OF ANEURYSM OF THE ABDOMINAL AORTA.¹

By HENRY F. A. GOODRIDGE, M.D., F.R.C.P.,
Senior Physician to the Bath Royal United Hospital.

R. B., aged 38, but looking older, a porter, was admitted on December 19th, 1871. He confessed to intemperate habits, but stated that, except for some winter cough, he had usually enjoyed good health, and was not aware of anything much amiss with him until eleven days before admission, when he was attacked somewhat suddenly, whilst walking, with pain in his left lower limb, so that he was scarcely able to get to his home. The pain was chiefly in the knee, and was attended with swelling of the limb. He kept his bed, in consequence, for the next four days, when, the swelling being nearly subsided and the pain much relieved, he began to move about again. He soon, however, got worse; the swelling increased, and the pain, though not so severe as at first, continued very troublesome. He now, therefore, December 19th, applied for advice, and was at once admitted an in-patient, his state at this date being as follows. The left lower limb from the thigh downwards presented considerable oedematous enlargement; this having commenced, he said, above and not below; there was none whatever in the fellow limb. On further examination, an irregularly globular but smooth resisting mass, causing distinct bulging and tension of the iliac and lumbar parietes, especially of the former, was found to occupy the greater part of the left half of the abdomen. It extended superficially, from near the vertebral column behind, to an inch or two beyond the umbilicus, where it dipped deeply with a rounded, well-defined border; and from Poupart's ligament and the crest of the ilium below to nearly the left false ribs. In this upper direction in front it seemed gradually to subside; moreover, the dullness on percussion which its surface pretty uniformly yielded elsewhere, shaded off here into the normal resonance of the part. It presented a certain amount of elasticity on pressure, varying, however, at different spots; but its most marked feature was its strong heaving pulsation, perceptible anteriorly at its most prominent part, but hardly less distinctly felt in the vertebral groove, when the patient was on his hands and knees. The mass was quite immovable, and free from tenderness on manipulation, and no *bruit* could be detected on auscultation anywhere over its extensive area. Just above the pubes on the left was some ecchymotic discoloration of

¹ Read before the Section of Pathology at the Annual Meeting of the British Medical Association held at Brighton.

the integument, also the glands in his left groin were indurated. On further inquiry it was elicited that six months previously he was knocked down backwards by a passing truck, the fall being felt chiefly on his left side, and he admitted that, from time to time since then, he had had vague aching in the left loin, which was never, however, made worse by movement. There was some deficient stroke-sound and breath-sound, with absence of vocal fremitus at the base of the left chest; a systolic murmur was heard at the base of the heart; his liver reached mid-way between the ensiform cartilage and the umbilicus. His temperature in the axilla was 99.8°; his pulse was 108, small, but regular; his respirations were 36. He had some cough, attended with scanty muco-purulent expectoration; his tongue was moderately clean; his appetite was fair; he had had no vomiting except on two occasions, shortly after the accident referred to; his bowels were pretty regular; his urine was acid, deposited lithates, but was free from albumen. He lay on his back, shelling to the left, and had difficulty in sitting up straight in bed, also in fully extending his left thigh.

December 22nd. His sleep had been disturbed by the pain in his left leg; he had had none elsewhere; the oedema of the limb was much the same. His bowels had been freely opened by castor-oil, given to remove any accumulation; but the physical signs and the characters of the tumour remained unaltered.

December 26th. With the aid of hypodermic injections of morphine and atropine at bed-time, he had been sleeping better. He was easier in his left leg; his temperature had slightly risen; his urine was of specific gravity 1018, and showed, as it had done once or twice before since his admission, a small proportion of albumen.

December 29th. The skin could barely be pinched up over the most prominent part of the tumour. The two patches of ecchymosis above the pubes had almost disappeared. The semicircumference at the level of the umbilicus measured, right 15½ inches, left 16½ inches; and from the anterior superior spine of the ilium to the most dependent part of the ribs, the distance was, on the right side 5½ inches, on the left 6½ inches. His temperature was 101.4°; his pulse was 108; his respirations were 36.

December 31st. He had had paroxysms of acute shooting pain in the left thigh, relieved only by hypodermic injections of morphine.

January 2nd. He had been sleeping pretty well, and was more free from pain; but his appetite was not so good, and he was beginning to suffer from dyspnoea. There was still deficient resonance on percussion over the base of the left lung, and bronchial breathing was heard at the angle of the left scapula; at this spot vocal fremitus was present. The breathing over the right lung was free. A good deal of undulatory pulsation was observable at the epigastrium.

January 5th. His cough had increased during the few preceding days. There was dullness on percussion more or less all down the left side of the chest, with the breaching obscure and indistinct; bronchial breathing and bronchophony were heard over the left chest posteriorly; vocal fremitus was present at certain spots. At the right base, the breathing was harsh and rhonchal. What appeared to be the descending colon with solid contents was observed now coursing over the upper part of the tumour in a direction downwards and inwards. His bowels were confined; his urine contained some albumen.

January 6th. At 11.30 p.m. he had a severe paroxysm of pain in his left leg; his respirations were hurried, his breathing was oppressed. The swelling of the limb, which latterly had diminished a little, was now much as before.

January 7th. He had slept very badly. His temperature was 100.8°; his pulse was 108, very small and feeble; his respirations were 36. He had tremulous movements of his fingers at times. He lay shelling down on the left side of his bed as though he would fall out.

January 8th. He had been wandering in the night. The tremulous movements continued. His bowels had acted twice after an enema; he had considerable tympanites. His pulse was 112, very small and feeble.

January 9th. He died at 2 A.M.

Necropsy, twelve hours after death. The abdomen was distended, but in the left iliac region, where the almost solid resistance of the tumour had been observed as usual the preceding day, the parietes were now comparatively yielding. On opening the peritoneal cavity, some serous effusion was found inferiorly; also a long flat band of blood-coagulum was seen extending from the left flank towards the pubes, and thence into the pelvis. On reflecting the great omentum, the tumour was exposed to view. The descending colon crossed it from above, downwards and inwards, and was inseparably adherent to its front. It presented a convex smooth and red surface, formed of peritoneum; was more or less elastic to the feel; was well defined on its right border, but in the left flank was firmly and extensively adherent to

the abdominal wall. It sent a prolongation under Poupart's ligament; while superiorly it was in close contact with the left wing of the diaphragm. In this last named situation, one or two more coagula of large size were met with. The small intestines were very much pushed to the right by the tumour. The left pleura contained much serous effusion, and the lung was compressed into a small bulk; it had two or three tough bands of adhesion laterally and posteriorly. The right lung did not collapse, having old adhesions. The heart was rather small; its aortic sigmoids were healthy. On tracing the aorta downwards in the abdomen, the aneurysmal nature of the tumour soon became apparent. It sprang from the left side of it by a narrow opening, about two inches above the bifurcation, and just below the giving off of the inferior mesenteric artery. There were numerous opaque patches of atheroma in the course of the vessel, but no calcification or breach of surface of the inner coat; nor was there any at the mouth of the sac. A quantity of fluid and loosely coagulated blood escaped from the interior, leaving a free space that would contain a foetal head at full term, while laminated fibrinous deposits were present to such an amount that, including some residual coagula, the mass was found to weigh nearly six pounds. At the posterior part the wall of the sac had gone, and the bodies of the second, third, and fourth lumbar vertebrae were exposed to view. These were all more or less eroded, the intervertebral discs being intact. Below Pouart's ligament, the aneurysm resting on the psoas and iliacus muscles extended to near the trochanter minor, where it formed a *cul-de-sac*. The left common and external iliac arteries had the tumour closely overlying them, but their lumen was quite free; the corresponding veins, however, with the upper part of the femoral, were thrombosed. The liver and kidneys were anæmic; some of the mesenteric glands were calcified.

The huge size of the aneurysm here, and the almost entire absence of subjective symptoms until just about one month before the fatal termination, combine, I think, to give to the foregoing case a somewhat exceptional character; at least, under that impression, I have ventured to bring it before this Section on the present occasion, when the subject of aneurysm is specially selected for discussion. Perhaps another noteworthy feature that the case presents is the rupture into the peritoneal cavity, it being uncertain how far death was directly due to this circumstance. The amount of extravasation was small; and the patient had been gradually sinking from exhaustion for some days, the increasing effusion in the left pleura appearing to have a considerable share in accelerating the fatal event. The seat of rupture was clearly in the upper and posterior portion of the sac, which was under cover of the left wing of the diaphragm; but the opening was so small that (the time for examination being limited) it was not detected; it seemed probable that the blood had found its way by a sinuous passage through the strata of fibrin, penetrating at last the peritoneum. The concurrence of pleuritic effusion on the same side (which was already present to some amount on the patient's admission), the extension of the aneurysm below Poupart's ligament, and the limitation of the pain—the one prominent symptom—to the lower limb, that is, to the distribution of the crural branches of the lumbar plexus, there being none higher up where pressure and tension were so widely at work—are severally, I submit, additional points of interest in the case. As to treatment, it was deemed inadvisable, under the circumstances, to withdraw the fluid in the pleura by thoracentesis, and wholly futile to do anything, whether surgical or medical, for the cure of such an enormous aneurysm; the relief of pain by morphine, etc., was thus all that could be attempted.

CASE OF DYSPHAGIA ACCOMPANIED BY ASCITES.¹

By E. LONG FOX, M.D., F.R.C.P.,

Consulting Physician to the Bristol Royal Infirmary.

IN January, 1885, the Rev. R. C., Fellow of a college at one of the universities, came under the care of my friend, Dr. Colman. As during a period of eighteen months I had the pleasure of meeting him in consultation on the case two or three times in each month, he has allowed me to bring this brief record before this Branch of the Medical Association.

The patient was a shy, reserved bookworm, hard-working, and very intellectual, of irreproachable habits and morals, aged 35. In the early stage of his illness he was said to have had symptoms suggestive of gastric ulcer. These were not severe, but during convalescence he quite suddenly found himself unable to swallow solid food. There was no hæmorrhage, no rejection of mucus. He was able to take plenty of liquid food, especially soup and cream, if he allowed definite

¹ Read before the Bath and Bristol Branch.