came round several times before the fatal event—is recorded in THE LANCET of Aug. 26th, 1893, and similar deaths from too little chloroform or a lull in the administration were discussed in 1892 and 1893⁵ I have mentioned above Mr. Wilson's opinion that in his Case 6 the syncope was due to the reflex inhibition of the heart by the pain; but it seems to me that a somewhat different relation between cause and effect to that he suggested is possible. Thus I have said, with reference to the effect of high blood pressure on the action of the heart,⁶ that my own heart never falters or flutters except when there is high or rising blood pressure; but there is one condition I ought to have mentioned in which my heart does flutter or falter just as in pulse tracing A⁷ (which shows well-marked high arterial tension), and that is during severe irritation of a sensory nerve. I happen to suffer many things with the dental branches of the fifth nerve, and I have several times noticed that with the most severe paroxysms of pain my heart falters and flutters just as it was doing when the above-mentioned pulse tracing was taken, for these cardiac irregularities, not being habitual with me, are always distinctly felt. Now, in the case of my own heart was this a reflex or was it due to rising blood pressure? If we may consider—and, so far as I know, physiology does not negative the idea—that irritation of a sensory nerve causes a general contraction of arterioles and a rise of blood pressure, the cause was in both cases the same, and my heart fluttered under the dental pain for the same reason that it did so in pulse tracing A, because in both there was high and rising blood pressure. We can now fully appreciate the bearing of Mr. Wilson's Case 6. Here the patient was coming out of the chloroform anaesthesia, and blood pressure was therefore rising; suddenly to this was added severe irritation of the sensory nerves of the knee, causing an acute rise of blood pressure, and it was little wonder that the heart was thus completely overpowered and that syncope at once resulted. And this explanation reminds me again of Marey's observation, which I have elsewhere quoted, that changes in the rate and rhythm of the heart, while often attributed to nervous influences, are in not a few cases really due to pressure changes in the vessels.⁸ If further we may take it, as I have suggested, that excess of uric acid in the blood is the most common and potent cause of high blood pressure, we can easily understand the fatal result in Mr. Wilson's Case 2, with atheromatous arteries and granular kidneys, and in the other case mentioned above where there was slight renal disease, and this patient also had been suffering under the depressing effects of grief, while recent pregnancy and other factors are mentioned. Now I have no hesitation in saying that in one and all of these conditions there would probably be excess of uric acid in the blood, and that they are just the conditions in which I should expect syncope after chloroform to take place. I quite agree with Mr. Wilson that one cause of death after chloroform is syncope, and endorse his valuable suggestion that syncope under other conditions should be studied to illustrate it; and if this is done many will, I believe, be astonished to find how large a number of syncope cases are preceded or accompanied by evidences of high and rising blood pressure, and, if these can also be examined, with excess of uric acid in the urine and blood.

I make these suggestions for what they are worth—for a place beside other hypotheses; but if they are ever proved to be true it is evident that we should soon be in a position to prevent or to avoid all such cases of syncope, and also to say with considerable certainty in what cases and conditions it is dangerous to give chloroform.

Brook-street, W.

⁵ Brit. Med. Jour., vol. i. 1892, and vol. ii. 1893, p. 1452.

⁶ Op. cit., second edition, p. 109.

⁷ Ibid.

⁸ Circulation du Sang, p. 484.

FURTHER CASES ILLUSTRATING THE RESULTS TO THE EMPLOYÉS OF IMPERFECT VISION TESTING ON RAILWAYS AND IN THE MERCANTILE MARINE.

BY W. C. ROCKLIFFE, M.A., M.B. CANTAB.,
OPHTHALMIC SURGEON TO THE HULL ROYAL INFIRMARY.

As might be expected in a seaport town, I could, if I had time to peruse my notes of the last twenty years, find many cases to substantiate the contention of the deputation of ophthalmic surgeons which recently waited on the Board of Trade, which I take to be "that it is unfair both to the patients themselves as well as the general public that the testing of the acuity of vision and colour sense of railway and marine officials is not undertaken in every case by persons fully versed in ophthalmic knowledge and capable of detecting without doubt either errors of refraction, achromatopsia, or diseases of the eye—more especially the fundus." In support of which statement I quote from cases which have come under my care during the last eighteen months.

CASE 1.—A man aged thirty-eight had since boyhood been to sea and gradually risen to the obtaining of his master's certificate. Three times had his sight been tested, including colours, and each time he passed without difficulty; but on presenting himself as master he was found to be colour-blind and rejected. On examination he selected for green—salmon, grey, and drab; called rose green, and selected blues and purple; and matched bright red with dark brown.

CASE 2.—A young man aged twenty-five years had during the nine years he had been at sea never experienced any difficulty in "picking up lights," and had passed the colour test twice before, but was rejected on passing for master. On examination he selected for green—greys and light brown; for rose, purple and blue; and for red, dark brown.

CASE 3.—This case particularly exemplifies the hardship entailed by inefficient examination. A young man aged twenty-two years had been educated at a public navigation school, been second and first mate, and obtained his master's certificate, but was rejected at the moment his appointed ship was awaiting its captain. Throughout the whole of his life he bore a most exemplary character, and had twice been passed by the same examiner before rejection. His surprise and disbelief in his colour blindness caused him to consult me. On examination he called green green, but selected drab, salmon, and grey; he called rose light green, and selected blues, violet, and emerald green; and he called red red, but selected dark brown and claret.

CASE 4.—A young man aged twenty-three had worked his way through the shops, been engine-cleaner, and afterwards fireman for three years and a half, and was refused his driver's certificate on one of the largest lines in England on the ground of colour blindness. On examination he selected as green—magenta, drab, grey, and buff; and as rose—emerald green, ultramarine, and violet.

I have also within my recollection the case of a fireman who could not see the guard's signal at the end of the train, and yet this man had been for some years with the same company, and it was only when his driver refused to take the whole responsibility during foggy weather that his condition was discovered. Another man had considerable amblyopia with atrophy of the optic nerve; and again, a third, an able-bodied seaman, was refused by his captain, a personal quarrel being assumed as the motive; on examination his vision was found to be $\frac{6}{36}$, and he had high myopia, and yet this man for years had taken his watch on a large passenger steamer.

Remarks.—These cases will, I think, add some little proof to the assertion that not only ought our railway officials and seamen to be examined by competent persons *before* they commence their career, but also (as the deputation further insisted) from time to time while they are following their various avocations; and doubtless a considerable volume of similar evidence might be obtained from many other ophthalmic surgeons, by which even the Board of Trade might be compelled by public feeling to take such steps as were advocated by the deputation, and, as Mr. Beaumont correctly states, prior to some serious calamity at sea or at home. The deputation could not possibly have been composed of a

THE annual meeting of the Royal National Hospital for Consumption and Diseases of the Chest, Ventnor, was held on Feb. 14th at 34, Craven-street, Charing-cross, Sir Algernon Borthwick presiding. Suitable reference was made to the death of the founder of the hospital, Dr. Arthur Hill Hassall, a portrait of whom has been placed in the large dining hall. During 1894 there were 793 patients, a higher number than in any former year. The income exceeded that for 1893, chiefly in consequence of a gift of £1500 from an anonymous donor.

more powerful assembly of ophthalmic surgeons. Nevertheless, I feel that they might have considerably strengthened their hands had they solicited from their many *confrères* such evidence as was supplied by Mr. Beaumont in THE LANCET of the 9th inst. The whole matter was somewhat "rushed" at the meeting of the Ophthalmological Society on Jan. 31st, and an influential deputation was promptly formed to support that of the British Medical Association; but, judging by the cases quoted on the spur of the moment by several members present at the meeting, I venture to think it would have been better to have issued circulars asking for information and cases to support their argument, the immense necessity for which is of undeniable public importance.

Charlotte-street, Hull.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

REMOVAL OF PAROTID TUMOUR; SUBSEQUENT SALIVARY FISTULA.

BY L. A. LAWRENCE, F.R.C.S. ENG.

A MAN of middle age came to the Western General Dispensary early in November, 1893. He had a tumour in his left parotid region about the size of a small orange. It was of four years' duration and presented the usual signs of an innocent enchondroma. The patient desired its removal on account of its unsightliness. After watching the case for a short time I decided to operate, and accordingly on Nov. 16th the tumour was removed with ease and turned out to be an enchondroma. A line over the most prominent part of the swelling was chosen for incision; this was three inches long, and extended from just below the tragus of the ear to a point midway between the angle of the mouth and the angle of the jaw. Only the superficial integuments were incised, and immediately below them the capsule of the tumour presented. The mass itself shelled out. There was no hæmorrhage, and the facial nerve was not seen. The wound was washed out and the skin brought together along the whole line of the incision with horsehair sutures. The patient made an excellent recovery. The dressings were soaked through on the first night, and this condition was observed each time they were changed. Owing to staining the true nature of the discharge was not appreciated till four days after the operation, when the wound having healed in nearly its whole length the clearness of the fluid escaping at once showed it to be saliva. The small salivary fistula was situated in the line of the incision about one inch from the ear. This condition continued for five weeks. On Dec. 10th I probed the left duct of Steno from the mouth; there was considerable difficulty in finding the opening, much more so than on the right side. A fine probe entered about two inches and did not point towards the wound. Between the 10th and 15th a probe was inserted twice again. The house surgeon, Mr. Jackson, then gave him some belladonna in hopes of reducing the flow of saliva. The quantities taken were fifteen minims of the tincture on Dec. 15th. Then twenty minims each day till Dec. 21st, when the drug was omitted; from then till the 23rd twenty-five minims were taken daily. After this date the drug was stopped. On Dec. 27th the saliva ceased to run from the wound, which then closed spontaneously. I have brought the case forward on account of several curious features it presented. 1. As to the cause of the flow of saliva. The incision was quite superficial, and the facial nerve, except for, perhaps, some fibres on the surface, was quite intact. It may be doubted therefore whether Steno's duct was the source of the flow. A possible glandula socia may have been cut, but I was not aware of any such proceeding at the time of operation. 2. The influence of the belladonna treatment. After the first dose the patient said less saliva flowed through the opening. The first dose, however, was given the same day, when the last probing took place. There was never any dilatation of the pupils and only a trifling dryness of the mouth on waking in the morning, not sufficient for its being considered due to the drug. There were no other physiological effects of belladonna observable.

Then, again, the flow did not cease till five days after the medicine had been discontinued. Lastly, one may ask, What effect had the probing of the duct? To my mind none. If the duct had been cut probing the distal portion would not have helped the saliva to flow through it. If it had not been cut the saliva could not have escaped from it. I have lately again seen the patient, who is in excellent health in every way.

Harley-street, W.

REMARKABLE GUNSHOT INJURIES.

BY J. G. STRACEY FORREST, L.R.C.P. LOND.,
M.R.C.S. ENG.

ON Jan. 18th, 1895, being in the vicinity, I was called by the police to see the body of a man found dead on the beach at St. Leonards. He was tall and stout, and apparently about thirty-six years of age. On examining the body, which was still warm, I found the whole of the left side of the face blown away; the roof of the mouth and also the cranial bones on that side were broken into fragments, enormous damage being done to the brain substance, which was exposed. Although the terrific force succeeded in producing such terrible destruction it nevertheless failed to produce any external lesion of the scalp. The whole scalp covering the calvarium was intact, there being an utter absence of external injury beyond that already mentioned on the left side of the face, although the cranial bones on that side and in front were so freely broken and loose. I also found about four inches below and one inch and a half internal to the left nipple a circular wound with charred edges, from which fat protruded, but no great hæmorrhage had apparently taken place. There was a corresponding hole in the waistcoat, shirt, and vest. On Jan. 20th, in conjunction with Dr. Kenyon, a post-mortem examination was made. We found the seventh and eighth ribs smashed, but the contents of the chest were uninjured. On examining the wound, which led straight in, we found the two wads covering the shot and powder and several small shot, apparently sixes, embedded in the fat, muscles, and tissues, but no perforation of the stomach or intestines was discovered. He was found lying on the beach on his back by a coastguardsman, with a double-barreled 12-bore gun lying between his legs, the muzzle resting on his stomach and inclined to the left. The right barrel had been discharged, but the left was still loaded. It appears that he must have first discharged the gun at his breast, but, this not proving immediately fatal, reloaded, placed the barrels in his mouth, and fired again, causing instantaneous death.

St. Leonards-on-Sea.

A Mirror

OF

HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ROYAL FREE HOSPITAL.

ACUTE INTUSSUSCEPTION IN AN INFANT AGED FOUR MONTHS; LAPAROTOMY; RECOVERY; REMARKS.

(Under the care of Mr. E. W. ROUGHTON.)

WE have for many years advocated the publication of cases of intussusception which have been submitted to operation, for the list of recoveries after abdominal section for this condition, at any age, is still a small one, and information is required on several heads. The case recorded below is especially worthy of notice, because, so far as we can ascertain, the patient is the youngest on whom laparotomy has been successfully performed for that condition. Dr. Kammerer¹ and Mr. Howard Marsh² have each recorded a success after operation in a child aged six months; but it is well known that abdominal section is only

¹ Medical Record, New York, 1890, p. 114.

² In 1875.