The bone beneath was fractured horizontally, and the upper part depressed to a considerable extent. There were no cerebral symptoms of any kind. Cold water dressing was applied to the wound.

June 14th. He had a very fair night, and continued well during the day; but towards evening a very troublesome cough came on, with pain in his side. The tongue was foul; the bowels were confined; and the pulse was frequent. He was ordered to have an aperient draught immediately.

R. Mist. salinæ simpl. ℥viij; antim. potassio-tartratis gr. j. Fiat mistura ejus capiat 3i 4tis horis.

June 18th. The bowels have been well relieved. There is some strabismus of the right eye; but this, on inquiry, is ascertained to be natural to him.

June 28th. Since last report, he has gone on without a single bad symptom. The wound is suppurating. He was allowed a rather more liberal diet.

He was discharged cured about the end of July, having previously been made an out-patient for a week or two.

CASE V. *Concussion of the Brain: Great Maniacal Excitement: Recovery.* (Under the care of K. KING, M.D.) Richard Wright, aged 44, married, was admitted on November 19th, 1859, at 8 P.M., having fallen into the hold of a vessel, a distance of twelve feet, being at the time in a state of intoxication, to which he was addicted. There was merely a slight wound of the integuments over the right eyebrow. He was insensible, but moved the extremities when pinched or otherwise irritated; feet cold. The pupils were dilated, but not perfectly motionless. Pulse 88, full; respiration, 24 per minute, not stertorous. The head was ordered to be shaved, and an evaporating lotion constantly applied.

Nov. 20th. He passed a quiet night. The bowels were not open.

R. Calomel. gr. v; olei crotonis m̄ij. M. Fiat pilula statim sumenda.

Nov. 22nd. The pupils continue dilated, though not so much so. The bowels have been well relieved.

R. Calomel. gr. ij; pulvis opii gr. 4. M. Fiat pilula 3tis horis sumenda.

The head was ordered to be shaved, and a large blister applied to it.

Nov. 24th. He is beginning now to be rather restless, frequently getting out of bed. The pupils are now contracted.

Nov. 25th. He is very violent indeed, and will not lie quiet a minute.

R. Vini antimon. potassio-tart. 3i; aquæ ad ℥viij. M. Fiat mistura ejus capiat 3i 2nda quæqua hora.

Six leeches were ordered to be applied to each temple.

Nov. 26th. The leeches seem to have had a good effect, as he is quieter this morning. A blister was ordered to be applied to the nape of the neck.

Vespere. He is so violent that it is necessary to restrain him with a strait waistcoat.

R. Solutionis morphinæ hydrochloratis 3iij; vini antimonii potassio-tartratis 3ss; aquæ camph. ad ℥viij. M. Fiat mistura ejus capiat 3i tertiis horis.

Nov. 28th. He has been a little quieter the last two days. He frequently gets out of bed to pass urine.

R. Spiritus ætheris nitr. 3iij; tincturæ hyoscyami 3iij; aquæ camphoræ ad ℥viij. M. Fiat mistura ejus capiat 3i 4tis horis.

He takes also the following at night:—

R. Sol. morph. mur. 3iij; aquæ ad ℥viij. Fiat mistura ejus capiat 3i pro dosi.

Dec. 3rd. He has been much quieter the last few days. He passes urine less frequently. He has meat daily, but complains of not having enough. He speaks sharply and abruptly, and has rather a wild look.

Dec. 4th. Vespere. He is very violent again to-night, restless, and talkative, requiring the use of mechanical restraint. A blister was again applied to the nape of the neck.

R. Antimon. potassio-tartrat. gr. ij; potassiæ bicarb. 3iij; tincturæ hyoscyami 3iij; mist. camph. ad ℥viij. M. Fiat mistura ejus capiat 3i 3tis vel 4tis horis.

Dec. 11th. His medicine has never produced nausea or vomiting. He is very quiet now, and sleeps well, but talks a great deal, sitting up in bed, and looking very wild.

Dec. 14th. He is up all day now, and is much more tractable and obedient; but he still has a look of vacancy in his countenance.

Dec. 20th. He was taken away to-day by his friends. Some time afterwards, he was met in the street coming home from his work, when he appeared, and said he felt quite well.

Original Communications.

A CASE IN WHICH, AS A RESULT OF INJURY, THE WHOLE OF THE IRIS WAS FOLDED BACK AND BECAME INVISIBLE.

By J. VOSE SOLOMON, F.R.C.S., Surgeon to the Birmingham and Midland Counties Eye Infirmary.

IN the ASSOCIATION MEDICAL JOURNAL for the year 1855, at page 416, I recorded four cases in which, in consequence of a violent contusion of the globe, the iris became invisible. In one of these instances, the sclerotic was ruptured; in another, the cornea; in two, the sight was preserved. At the time when the cases came under my observation, the ophthalmoscope had not been introduced into England, and therefore I was unable to afford information respecting the appearances presented by the interior of the eye when illuminated by artificial light, and examined by means of a perforated mirror. I am gratified to be now in a position to supply this information, and to complete an account of a class of cases which are no less curious than rare.

CASE. A bricklayer, aged 50, came under my care at the Birmingham Eye Infirmary on July 29th, 1859. He stated that he had been struck on the right eye ten days previously by an iron scraper, which blinded him. The external tunics were now inflamed; not a vestige of iris was to be seen; the aqueous humour was not clouded by effused blood. The patient complained of severe ocular and circumorbital aching pains. It was not deemed prudent to examine the internal structures by the aid of the ophthalmoscope until the 5th of August, the seventh day of the treatment. At that date, the light from the lamp did not penetrate through the turbid vitreous humour; the only object which was revealed was a mass of blood, of an irregular spindle shape, which would measure about four lines long, and a line at its widest part.

Aug. 9th. The patient's mouth was sore from the mercury which had been prescribed on his admission. The external tunics of the eye were less vascular. *Ophthalmoscopic Examination.* No iris nor lens was visible; the vitreous body contained blood-clots; the fundus had a pale yellow aspect.

On the eighteenth day of the treatment and the twenty-eighth of the accident, the patient could see my face, and with difficulty count my fingers; but he could not tell whether it was the back or the front of them that was placed before him. The sclerotic, near to its corneal epiphysis, was becoming flat, and formed a sort of neck, upon which was set the cornea. At the upper and inner side of this neck, and at about half a line from the margin of the cornea, was observed a dark line. Was this a fracture, or only a thinning of the sclerotic? This dark line was noticed a week later (Aug. 23rd) to be extending downwards. If anything, the sight was better.

August 26th. The neck at the inner and lower side of the sclerotic was more marked; and the globe was here flattened. The black line yielded readily to the pressure of a probe—indeed, to such an extent as to impress me with the belief that the fibrous membrane was wanting at this part. With a No. 6 cataract-glass, the patient distinguished one person's features from another's.

It was not until the 30th of August that the pain in the eye was reported to be "slight and occasional". He had hitherto suffered much from tense pain in the globe.

Dec. 20th (fifth month of the accident). *Ophthalmoscopic Examination.* The vitreous contained what appeared to be numerous particles of pigment (*quere*, blood?), which resembled in density "wine-crust". They were smaller in size and fewer in number than they had been at the previous examinations. With the assistance of a cataract-glass, he saw my face distinctly. The black line in the sclerotic was much lessened in length; the rent was evidently undergoing a slow process of repair.

Feb. 1860. *Ophthalmoscopic Examination.* A cloud of fine muscæ lay deeply at the back of the eye, and rose slowly in a crescentic form when the globe was abruptly moved. There was to day some trace of the central artery of the retina and its vein. The choroid continued to be pale. The patient, with the assistance of a cataract-glass, read large type.

REMARKS. Some difference of opinion exists among ophthalm-

mic surgeons respecting the position taken up by the iris when rendered invisible from causes similar to that related above. A recent writer believes that the injury occasions the iris and lens to leap clean out of the eye, through a rent in the sclerotic. Without denying the possibility of such an occurrence, I am more disposed to seek an explanation of the phenomenon by a reference to cases where a part only of the iris disappears, as it must be evident that what happens to a part of the membrane may occur to the whole. I have observed that, if the iris be lacerated in its transverse diameter in two or more places, the whole of the segment included in the injury will in the course of a few days atrophy and cease to be apparent, although the aqueous humour shall be pellucid. Again, if the ciliary nerves be divided by a punctured wound of the sclerotic, so much of the iris as the nerves supply will collapse, so that the pupil is there extended to the rim of the cornea. Thirdly, if, in a cataract operation by extraction, the vitreous body becomes dislocated in front of the iris, and is allowed to remain there without interference, that part of the iris which is in proximity with the section atrophies, disappears, and in time loses its characteristic structure, being converted into a fibrous band. Moreover, dissection has proved that the greater part of the iris may entirely escape an external examination, and yet be found within the globe. In the *Archiv für Ophthalmologie*, b. i, p. 119, Von Ammon gives the details of an examination after death of an eye, in which the major part of the iris was rendered invisible by the concussion from a musket, which was loaded with water instead of lead, and discharged into the mouth, by a young soldier who had determined on committing suicide. The only visible portion of iris in the right eye was a crescentic fragment towards the external side. The point where this portion disappeared was neither torn nor abruptly folded inwards, but disappeared without its being possible to discern what had become of it; dissection showed that the upper, inner, and lower borders of the iris were pushed back. The vitreous body was displaced; the lens, with its capsule, touched the upper border of the middle of the superior ciliary processes, whilst the inferior border was found near the centre of the abnormally large pupil. The lens and vitreous body had displaced the iris. When the lens and vitreous body were removed under water, the iris slowly returned to its position.

Reviews and Notices.

ON THE DISEASES, INJURIES, AND MALFORMATIONS OF THE RECTUM AND ANUS; with Remarks on Habitual Constipation. By T. J. ASHTON. Third edition. London: Churchill. 1860.

THIS volume, which treats of some of the most troublesome complaints to which the flesh is heir, is so well known, that it needs no commendation at our hands. That it has reached a third edition, is the best proof of the estimation in which it is held by the profession. The new edition before us has been carefully revised, and very much improved by the addition of woodcuts, by Bagg, of the appearances presented by the various diseases.

LONDON AND PROVINCIAL MEDICAL DIRECTORY, 1860. London: Churchill. 1860.

THIS work is a singular example of the advantage an independent editor has over one confined to an official form. It was supposed that the publication of the *Medical Register* would have the effect of materially crippling the work before us, if not of finally extinguishing it. The very reverse, however, is the real result; for the editors tell us that their sale last year was increased rather than diminished. The advantage possessed by the official *Register* is, of course, its greater accuracy; but this very accuracy only tends to the improvement of the *Medical Directory*, as it serves to correct its errors. In other respects, the *Medical Directory* has advantages peculiarly its own. It is, in fact, an autobiography of the whole profession; and, by reading the little histories each man writes of his own career, we can judge pretty accurately of his calibre,

scientific attainments, and even of his disposition. The immense mass of interesting matter it contains connected with the profession, renders this annual volume really indispensable to the medical man's consulting table.

ON THE MEDICAL HISTORY AND TREATMENT OF DISEASES OF THE TEETH AND THE ADJACENT STRUCTURES; being Lectures delivered before the Members of the College of Dentists of England in the Session 1858-9. By BENJAMIN WARD RICHARDSON, M.A., M.D., Member of the Royal College of Physicians; Senior Physician to the Royal Infirmary for Diseases of the Chest, etc. Pp. 274. London: Baillière. 1860.

THESE Lectures are twelve in number, and embrace the following subjects:—1. The Constitutional and General Causes of some Diseases of the Teeth and the Adjacent Structures; 2. The Hæmorrhagic Diathesis in its bearings on Dental Practice; 3. Neuralgia in Relation to Toothache and Diseases of the Teeth; 4. Hysteria and Allied Conditions in Relation to some forms of Dental Affection; 5. Dyspepsia, Rheumatism, and Gout, in their Relations to some Abnormal States of the Teeth and Neighbouring Organs; 6. Diseases of Infancy and Childhood, as dependent on and as influencing Dentition; 7. Purulent Affections of the Gums and Adjacent Structures; 8. Malignant Diseases involving the Organs of Mastication; 9. Diseases of the Teeth and Maxillary Bones, arising from the Effects of Mercury, Phosphorus, Lead, and other Poisons; 10. Diet and Modes of Life in their Influence on the Organs of Mastication; 11. Chloroform and the Narcotic Remedial Series; 12. Pathological and General History of Necrosis, Exostosis, and Caries.

In the first lecture, Dr. RICHARDSON passes in review the effects of various poisons on the dental structures, and concludes with the following propositions, as expressing in a few words the relationships which exist between constitutional causes and dental diseases.

"1. Dental diseases of whatever kind have two sources: a simple local source, and a constitutional source. 2. The diseases of the organs of mastication, arising purely from local causes, are limited in number; including caries, necrosis, inflammation or its upshot, and the ache consequent upon exposure of nerve. 3. Every form of tooth-disease may directly or indirectly originate in constitutional disorder, and some originate in no other ways. 4. In all such cases the true cause of the disease is external, and the system is merely the medium by which the cause passes, or through which it is carried to the locally diseased structure. 5. The causes acting on the teeth to produce diseases through the system, are of two kinds—chemical, as by introduction of poison into the body—and physiological, as by perversion of normal acts. 6. The inorganic poisons which through the system seem most to affect the teeth and adjacent parts, are mercury, the alkalies, and, perhaps, the malaria; the organic are the poisons of syphilis and small-pox. 7. *Mercury* produces caries, suppuration, and hæmorrhage from the gums; *syphilis*, atrophy and tendency to caries; *small-pox*, suppuration, alveolar exfoliation and dental necrosis; and *malarial poison* intermittent tooth-neuralgia. 8. Amongst the diatheses or dispositions of body affecting the teeth, the strumous, the dyspeptic, the gouty, the rheumatic, the cancerous, and the hæmorrhagic, are the most important. 9. The *strumous* diathesis, while it favours the development of all diseases of degenerative type, is not *per se*—i.e., like syphilis or small-pox—a constitutional cause of dental disease. *Simple dyspepsia* is not a true constitutional cause. *Gout* is a true constitutional cause, leading both to acute ache and organic mischief; and *rheumatism* is a constitutional cause, giving rise to a specific rheumatic neuralgia of the tooth-nerve and to a specific periostitis. That there may be other forms of constitutional disorder arising from external causes, by which dental diseases are originated and intensified, is possible and probable." (Pp. 23-5.)

In the second lecture, the author enters fully into the nature and causes of the hæmorrhagic diathesis, and gives directions for its treatment when the teeth are concerned. For the local treatment of hæmorrhage from tooth-extraction,