results of mercury, the evidence seems opposed to the belief that the lenticular opacity is also due to the influence of the drug. The great frequency of mercurial teeth without lamellar cataract, and the not very infrequent occurrence of lamellar cataract without mercurial teeth, are opposed to this view.

8. That the very frequent coincident occurrence of lamellar cataract with defective teeth, is to be explained by reference to the frequency with which mercury is given for the treatment of convulsions in infancy.

9. That there is no reason whatever for supposing that lamellar cataracts have any connection with hereditary syphilis.

10. That, whilst it is certainly true that lamellar cataracts are commonly met with in young persons who show general defects of development, short stature, ill-shaped heads, defective intellect, dwarfed lower jaws, or other physiognomical peculiarities, yet there is seldom any proof of the existence of rickets; whilst it is quite possible that the peculiarities mentioned may be due to the disturbance of the nervous system in infancy in connection with the convulsions.

11. It is very important to distinguish between mercurial teeth and syphilitic teeth, and the peculiarities presented by each usually render this easy; the two are, however, as might have been expected, not uncommonly met with together.

THE CLINICAL THERMOPILE.

By T. CLIFFORD ALLBUTT, M.A., M.D.,

Physician to the Leeds Infirmary.

LEISURE, as Mr. Seymour Haden says, presents itself to the busy man in an ever diminishing quantity; and hence it is that I have long deferred the publication of my experience with a thermo-electric apparatus closely resembling that described by Dr. Lombard in a recent number of this JOURNAL. In the years 1866 and 1867, I was engaged, with the assistance of Messrs. Harvey and Reynolds of Leeds, in perfecting a clinical thermometer, which, being portable, should find its way into general practice. I was also wishful to obtain an instrument to record surface-temperatures; and to this inquiry I gave a good deal of time. Mercurial thermometers for this purpose gave very imperfect results. Instruments were made with button bulbs, with spiral bulbs, with bulbs guarded above by non-conductors, and so forth; but little came of them. I, therefore, turned my attention to a thermo-electric apparatus; and Messrs. Harvey and Reynolds constructed for me in 1868 an instrument far less perfect and elegant, but substantially the same as that of Dr. Lombard.

It consisted of piles attached to handles, exactly identical with those figured by Dr. Lombard, of a rheostat, and of a galvanometer. The piles were of bismuth and antimony, but they resembled those figured so closely as almost to startle me when I saw them represented. The rheostat was far inferior to Dr. Lombard's, and the galvanometer less perfect in detail. I am told by physicists that my instrument was as good as could be had at that time; and so I must think, for I constructed it with the help and advice of the first physicists of the day. I am also told that much of the excellent detail in Dr. Lombard's calculations was scarcely possible before the date of some publications by Professor Tait, of which, I regret to say, I know little. My galvanometer was provided with stops to prevent deflections of the needle beyond the points which give true indications. But, although I found it easy to calculate relative temperatures with great accuracy, I found a difficulty in expressing these accurately as absolute temperatures in the centigrade or any other scale.

I have had my machine, such as it is, in work since 1868, and have gained a great deal of experience with it. For some time, I used it in the wards of the infirmary; but the connecting wires, etc., made the instrument too cumbersome for ward-work. Still, I made many very valuable observations in the wards, which I have supplemented in my chambers. The general outcome of this is, that even a very imperfect instrument is thoroughly trustworthy as a means of recording surface-temperature, and is very easy to work and to keep in order. As to results, I fear I cannot say much that is of high clinical value. Perhaps the most valuable results I have obtained are the relations between superficial and internal heat. I have found that there is little, if any, constant ratio between the two. I have found superficial heat to ascend with the increase of internal heat; I have found it stationary during such ascent; and, on the other hand, I have found it to descend, making the contrast between the two greater and greater. Again, I have found that the ratio between internal and superficial heat varies with the parts examined. While internal heat is fairly constant, superficial heat is very variable. I have often found superficial heat rising on the abdo-

men while it was falling in the extremities, facts which admit a tolerably probable explanation. I have also made some curious observations upon the localities of sweating in hectic and similar states. Some patients sweat on the limbs, others on the trunk, fore or back, others about the head or neck; and I hope to be able to correlate these observations with other facts. The chief point, however, which I have before me at present is, to say that some outbreaks of sweat are preceded by a rise of surface-temperature, while others are preceded by a fall. During the sweat, a fall of surface-temperature is nearly constant. But, not to occupy too much space, I may go on to say that I have not found that inflammation as such raises local temperature, but that local afflux of blood does so raise it, whether this be a congestion or a blush. Finally, in nervous diseases I have used the piles more, perhaps, than in any others, with very various but no definite results. I have found that in neuralgic districts the surface-temperatures sometimes rise and sometimes fall, that in other cases a rise may precede a fall, while in a fourth class a fall precedes a rise. Upon all this, I must dwell more fully another time. In palsies, the surface-temperatures are often very interesting, not clinically so much as physiologically, but I have not yet obtained any constant results. As to railway cases, the more I see of them, the more I find them unfit for scientific investigation; and I have found that common clinical sense is a far more useful organ for us in them than minute instrumental research.

CASE OF COMPOUND DEPRESSED FRACTURE OF THE CRANIUM, WITH LACERATION OF BRAIN-SUBSTANCE, CAUSED BY A BLOW FROM A QUOIT.

By R. W. FORSAYETH, Surgeon 95th Regiment, Fleetwood.

ON the morning of September 12th, 1874, as I had concluded my visit and was about to leave the hospital, I met in the passage a man bleeding from a wound in the head. He was brought in by two comrades, but was quite able to walk without their assistance, and seemed so little affected by the injury he had received, that at first sight I was inclined to take a trivial view of the case. However, I ordered him to be placed in bed; and, being provided with sponges and tepid water, proceeded to examine the wound: a deep laceration, triangular in plan, severing the scalp for a couple of inches, and situated at the anterior superior border of the left parietal bone. Considerable oozing of blood was going on, which obscured the view; so, introducing my index finger as a probe, I distinctly felt a deep oblong depression, bordered by sharp edges, and, at the same time, was dismayed to see small particles of brain-substance escaping with the blood from the wound. At this time, no other symptoms existed to denote the serious nature of the injury. Countenance, pupils, pulse, respiration, and consciousness were alike unaffected. The patient himself also seemed to think it of little consequence.

Notwithstanding this apparently quiescent state of affairs, on consideration, I determined to operate as soon as possible for the removal or elevation of the depressed bone, and not to await the supervention of symptoms of compression, which, from the serious nature of the injury, I felt certain would sooner or later set in. As I had no military medical colleague on the spot, I sent for Dr. Orr of Fleetwood to assist and advise me; and, while waiting his arrival, learned the history of the case. The man was playing a match at quoits. Two pins, or marks, being placed in the ground at a distance of twenty-one yards, he and his opponent threw from one end of the space thus marked out, his partner and opponent from the other, alternately; using six-pound quoits. On one occasion, thinking that the quoits had all been delivered from the opposite end, he ran in and stooped to raise them from the ground. Simultaneously with his movement, another quoit was thrown by one of the players at the far end; and, as he bent towards the ground, it struck him on the head. Hurlled to the earth, he remained unconscious for a few seconds; then, being raised by his comrades, behaved as if drunk, resisting their endeavours to lead him to the hospital; but, in a few seconds more, he became quite himself again, and walked thither with little or no assistance.

About 3 P.M., Dr. Orr arrived. The patient's state was then indicative of commencing mischief. He was inclined to sleep, breathing was more laboured, and the pulse slower and weaker. Dr. Orr consequently, after examining the injury, agreed with me that immediate action was desirable. As the man was unable to bear the pain caused by handling the wound, Dr. Orr kindly administered chloroform; and,

when anæsthesia supervened, I proceeded to expose fully the seat of injury; the nature of which will be understood by reference to the diagram.

The shaded surface H, K, L, D, F, represents the depression, the deepest part of which was at K L, where the lacerated brain-substance was visible. Some small fragments of bone were removed from this and the superior angle of the fracture, by means of a small dental elevator and a dressing forceps; but the greater portion of the depressed bone was in one piece, and its sides so overlapped by the edges of the skull H K, and F D, that a purchase for the elevator could not be obtained. Observing a line of simple fracture running from A to B, I connected it with the edge of the depression, to which it was parallel, by two saw-cuts F E, and D C; intending to remove the oblong piece thus marked out, and thereby be enabled to expose the edge of the fragment in front. After sawing through the outer table, I found it quite detached from the inner, and removed it. Then the outer table of the depressed portion, H, F, K, L, D, also came readily away. The whole of the inner table from E C to H K, was found to be depressed *en masse*; the curve commencing at the line E C, and becoming greater as it advanced forward, the anterior free margin was deeply fixed under the edge of the sound bone at H K, and quite immovable. Therefore, making two saw-cuts H G and I K, which intersected, I removed the triangular portion of solid bone included. The elevator was then inserted under the depressed edge now exposed, and the portion of the inner table corresponding to the space H, F, D, K, came away, detaching itself from the remainder at the line F D. Here, the elevator being again applied, the rest of the bared inner table was raised to its normal level.

Some small fragments were then extracted from the brain-substance, into which they had been driven by the blow of the missile, at the corner K L. No others being apparent or perceptible by cautious and limited investigation, the wound was dressed with lint and cold water. When the patient had recovered from the effects of the chloroform, a saline purgative was administered.

No bleeding of any consequence occurred during the operation; the small vessels divided were readily controlled by torsion. Great care was taken to dissect the periosteum from off all bone removed, so as to preserve every chance of eventual reproduction.

7 P.M. He felt better. He was quiet and inclined to sleep. He could not retain the saline draught. The skin was natural, and the pulse fuller, and of more normal velocity. He was ordered to have five grains of blue pill.

September 13th, Morning. He passed a quiet night. Pulse 75, rather labouring. The pupils and skin were natural. He complained of no pain. He stated that he felt easy, but was unable to eat anything. Tongue whitish. He vomited the pill, but retained a little tea. The wound was healthy looking; the cavity was filled with a sanguineous clot. While I was in the room, he yawned, and turned about two or three times in a listless way, but answered all questions rationally, and in his natural manner. He was ordered to have an effervescent saline draught, as the bowels had not been moved since the operation.

Evening. He took some arrowroot during the day. The saline was rejected, but an enema of castor-oil and turpentine produced a satisfactory motion. Dr. Orr kindly visited him with me; and calomel in two-grain doses every second hour was prescribed.

September 14th. He slept fairly. He had but little pain in the head. The pupils continued natural ; but the conjunctivæ were slightly suffused. He could take no food other than milk and arrowroot. The calomel was omitted after twenty grains had been taken.

September 15th. The bowels were opened freely this morning. Pulse 64, soft, and regular. Pupils natural. Stomach settled. He had had a good night. The wound was healthy looking, and presented no appearance of fungus. The diet still consisted of milk, etc., but little of any solid was attempted, as he expressed great disinclination for food, and I did not desire to press him. Some Cond's fluid was ordered to be added to the water used in dressing the wound.

It is unnecessary further to follow the daily notes of this case. The man continued to improve without a single bad symptom. I was very apprehensive of the occurrence of fungus cerebri, but at no time was there any disposition towards its production. The wound filled rapidly with healthy granulations, no exfoliation of bone taking place, and cicatrization was complete on November 25th. The man was retained under observation for some time further, and finally discharged to duty on December 3rd.

The only abnormal symptom which presented itself during the case was considerable weakening of the heart's action. Soon after the operation, the pulse at each wrist became almost imperceptible, though the heart's sounds and action were normal ; and no faintness, or coldness of the extremities, was complained of. Even up to the date of his discharge, the pulse at the wrist continued extremely feeble, but the man looked and felt as well as ever ; and was, long before I discharged him, anxious and able to go to his duty. On discharge, the cicatrix was perfectly firm, and did not yield in the slightest to pressure, as if the bony gap had been quite refilled.

I cannot but think that the careful preservation of the periosteum had much to do with this good result.

OBSTETRIC MEMORANDA.

OVARIAN DISEASE: TAPPING: CURE: SUBSEQUENT
ACCOUCHEMENT.

Mrs. B. consulted me five months after her marriage as to her condition, which, to outward appearance, seemed to be that of a woman far advanced in pregnancy. As she had some doubt on the subject, I proposed seeing her at home for examination. The non-existence of pregnancy was not difficult to diagnose, and, for confirmation of my opinion that the swelling was ovarian, I sent her to Mr. Cadge, who kindly offered, if it met my views, to take her into the hospital. The patient herself was unwilling, and time passed on, till the swelling of the body had increased so much, her general health was so impaired, her emaciation had become so great, and her breathing so distressing, that relief in some way was urgent. Mr. Cadge being absent for a season, Dr. Beverley saw her in consultation with me, and it was determined that tapping should at once be resorted to. The result was the emptying of the cyst of three and a half gallons of a greenish yellow, somewhat glairy fluid. The usual compress with the flannel roller was applied afterwards. She recovered without an untoward symptom, and no reaccumulation of fluid took place. I visited her some months afterwards, and found her so hale and hearty, that I did not recognise her, and she had to assure me of her identity. Four months since, she again consulted me, and this time there was no doubt of her pregnancy. She was delivered of a healthy child on February 2nd, after a natural labour of twelve hours' duration, and, up to the present date (25th), has made a good recovery. The tapping took place in July 1872.

WILLIAM H. DAY, Norwich.

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A NEW FORM OF INDIA-RUBBER BALL-PRESSARY.

HAVING experienced great difficulty in the management of cases of displacement of the uterus, from the pain occasioned by pessaries made of hard material, and from the escape from the vagina of ordinary India-rubber pessaries, I procured an India-rubber ball, hollow, about the size of a small orange, with a wall about half an inch in thickness, having a hole about the size of an undried pea on one side, and capable of expanding itself, and of overcoming considerable resistance in this act. I expected that this instrument would readily resume its original size in the pelvis after having been diminished in bulk by efforts of coughing, defæcation, etc.—causes which lead to the expulsion of ordinary air-pessaries.