

Aug. 4. Period came on at the end of 28 days exactly, and lasted less than 3 days; gave her 150 m.m. + for 8 min.

This patient informs me that her doctor in Minneapolis had never been able to introduce the platinum electrode further than an inch and a half, and so, although he benefitted her generally, the diseased endometrium was never reached. I would not have had any better success with a solid sound, for there are three distinct curves in her uterine canal, which resembles the letter S. Nothing but a flexible electrode could possibly enter the whole distance. It was dire necessity which compelled me to invent this flexible sound, made from aluminium wire wound closely, and a soft black gum bougie. I arranged for Messrs. Lyman & Co., of Montreal, to keep them on hand. They have the defect of not being very durable, although the one I show you has stood some forty applications. They are best preserved antiseptic, after careful washing, by standing them upright in a bottle of glycerine.

Selections.

CEREBRAL LOCALIZATION.

BY DR. DAVID FERRIER.

(An Abstract—Continued.)

THE AUDITORY CENTRE.

On irritation of the superior temporal convolution and its homologues in the lower vertebrates there is quick retraction or pricking of the opposite ear, associated frequently with opening of the eyes, dilatation of the pupils, and turning of the head and eyes to the opposite side. These are just the phenomena which occur when a shrill sound is suddenly made in a monkey's ear. If the movements of the eyeball on stimulation of the occipito-angular region are to be regarded as signs of the arousal of subjective visual sensation, we have in the reactions under consideration still more characteristic indications of the arousal of subjective auditory sensation. The determination, however, of affections of hearing is not so easy as that of sight in the lower animals.

A monkey in which Ferrier performed the operation of bilateral extirpation of the superior temporal gyrus, with an interval of one month

between the two operations, was specially well adapted for experimentation in regard to the sense of hearing. It was a remarkably tame dog-faced monkey, and its character and modes of behavior under different circumstances were made the subject of careful study before it was operated upon. It was a noisy talking monkey. It invariably responded when called to by name, and came immediately when called. It imitated smacking of the lips and other signs of endearment. It always shouted vigorously and loudly when anyone approached or opened the door leading down to the laboratory in which it was kept. The rustling of a paper bag, from which it was accustomed to receive sweetmeats and nuts, was the signal for vociferous cries; as also any movement of the handle of a drawer in which apples and fruits were kept. It had an insatiable appetite, and was always clamoring for food, of which it never seemed to have enough. It had also an insatiable thirst, and the sound of splashing of water, made by turning on the water-tap, caused it to shriek to be let out and put its mouth under the tap. Not a sound could be made in its vicinity, or the movement of its companion monkeys in the other cages, without exciting its active attention. It was full of fun and mischief, and in every respect an animal unusually adapted for determination of any alterations that might occur in respect of its auditory or other faculties.

The left temporal superior convolution was scraped out on October 8th. On the second day it turned its head to the dangling of keys close to its left ear, but it did not do so, or very doubtfully, to the same test applied to the right. On Nov. 5th the superior temporal gyrus of the right side was similarly exposed and scraped out. On the third day, though otherwise alert and bright, it made no reactions to sounds of any kind, did not reply to calls, did not notice the noise of footsteps on the stairs, exhibited no sign of perception when the water-tap was turned on, though it was evidently intensely thirsty, as it drank eagerly when water was presented to it; it paid no attention to the cries of two animals which were placed in the adjoining cage, and, in general, responded to none of the tests of hearing which formerly aroused its active interest. Similar results were obtained three weeks