later no change was apparent, and I arranged to show him at the next meeting of the Nottingham Medico-Chirurgical Society, but on the morning of the meeting—eleven days from the date I saw him—when he wakened he found the noises had gone, and they have never returned.

The case is interesting as regards ætiology, prognosis, and treatment. In some a distinct cause can be found, in most the prognosis is very bad, and in almost all operative treatment is unsuccessful.

Whether there was any connection between the injury to the nose and the tinnitus I am not prepared to say, and certainly intra-nasal examination revealed a normal condition of this structure. The sudden termination of the symptoms was another interesting and inexplicable feature.

ANNOTATION.

CAN DEAF-MUTES SWIM?

At the last Congress of French Otologists at Paris, in May of the present year, Messrs. Moure and Cauzard, summarising the work which has led up to the recent improvement in our methods of diagnosing labyrinth disease, quote an early American observer, James, as having said that it is "almost impossible" for deaf-mutes to swim. What that worker specially referred to, however, was the difficulty which certain deaf-mutes experience when they try to swim *under water*. This inability would seem to be a result of the absence or paralysis of the vestibular apparatus if the recent experiments of Thomas may be accepted as an explanation of the phenomenon. Having divided the vestibular nerves of dogs Thomas found that the animals were unable to maintain their equilibrium while in the water, whereas when the vestibular nerves were left intact and the cerebellum was destroyed they could support themselves with perfect ease.

The general question of the ability of deaf-mutes to swim seems to be settled by a letter on the subject, for which I am indebted to the kindness of Mr. John Brown, Headmaster to the Royal Institution for the Instruction of Deaf and Dumb Children at Edgbaston, Birmingham. He writes, under date July 1, 1909, as follows:

"(1) We teach all our deaf-mutes to swim, except those whom,

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for health reasons, our medical officer has forbidden swimming lessons.

"(2) Our swimming instructor, who has taught swimming for forty years, says they learn quicker than normal children and sooner acquire a good stroke.

"(3) They swim perfectly well with closed eyes, but they cannot direct themselves by sound, and, of course, they cannot tell except by guessing when they are approaching the end of the bath.

"To test this I took about fifteen of our senior boys into the swimming-bath. The bath is about forty-eight feet long and seventeen or eighteen feet wide. I asked each boy to dive from the middle of one end of the bath and swim a length with his eyes tightly closed. All swam very well and the majority kept almost perfect direction. One boy came against the side about six feet from the far end of the bath."

The discrepancy between the older reports, that deaf-mutes experience some difficulty in swimming, and the testimony afforded us in the foregoing communication is probably more apparent than real. In a considerable proportion of deaf-mutes the tests show that the vestibular sense is active, and these persons in keeping their station, either under water or on the surface, would probably manifest no more deviation than normal individuals. With regard to that class of deaf-mutes, on the other hand, in whom the vestibular end-organs are totally inert, the ability to support themselves on or under water would probably depend upon the character and duration of the destructive lesion, and upon the presence or absence of an education of the compensatory methods of maintaining their equilibrium. Certain deaf-mutes find it difficult to walk in the dark or with bandaged eyes, and these we should expect to be individuals in whom the vestibular organs have been but recently destroyed, or who have neglected to train their sense of touch and pressure to replace the defective stimuli from the semi-circular canals.

The subject is mentioned also in an abstract of an article by Herzfeld, of Berlin, which appeared in the September issue of the Journ. of Laryngol., Rhinol., and Otol. (p. 525), and there can be no doubt that a fresh investigation of this interesting detail, carefully conducted with regard to controls, and under the guidance of the modern methods of interrogating vestibular activity, would prove serviceable in effectually dispelling the haze which seems to cling about the point. Dan McKenzie.

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