labyrinth. Until recently only the more severe cases were recognised: now, owing to improved methods of diagnosis, even the mildest cases can be detected by objective examination. In the examination of a suspected case of labyrinth lesion both the cochlear and the vestibular apparatuses must be examined separately, as they may be independently affected. This examination should be comprehensive, as otherwise confusion may arise where both systems are involved. Sometimes there may be only temporary and partial interference with function—or in the case of the vestibule alone, a passing hyperæsthesia.

The author describes fully an interesting case where a fall on the occiput, which resulted in a passing unconsciousness of a few minutes' duration, and which at the time showed no signs of any ear trouble, was followed by gradual, and at the end of two years complete, destruction of both the functions of the inner ear.

In a case of the kind repeated examinations should be employed in which the caloric and rotary tests will be used. A special difficulty arises where there is a predominant functional inequality of the vestibular operation, as its function has not the same measurable and absolute value as that of the cochlea. When the exact degree of involving of the labyrinth cannot be absolutely determined it will be sufficient clinically to compare the two sides; and in cases where both sides are affected the "relative quantitative analysis" of the two sides may assist, the possibility of vestibular hyperæsthesia being kept in mind. The author draws attention to the fact that when using the thermal test, even when the provoked nystagmus is slight, the patient, on closing the eyes and attempting to walk straight ahead, deviates in the direction opposite to that of the nystagmus. This last sign would, of course, only be of value where one could definitely exclude any extra-vestibular origin of the interference with equilibration, such as cerebellar disease.

J. D. Lithgow.

Day, Ewing W.—Reports of Three Cases of Mental Derangement associated with Suppurative Otitis Media. "Annals of Otology, Rhinology, and Rhinology," vol. xx, p. 388.

The first two cases, one female, aged fifty-five, and one male, aged thirty, both showed great apprehension of operation, and remind one of the cases recently described by Devine in the *British Medical Journal* for September 30, p. 747, in his paper on "The Significance of Some Confusional States." In the third case, a man, aged fifty-two, with lateral sinus thrombosis, severe and continued pain seems to have been the determining faculty in his mental condition. *Macleod Yearsley.*

MISCELLANEOUS.

Wall, Cecil (London).—Some Aids to the Diagnosis of Pulmonary Tuberculosis. "Clinical Journal," October 18, 1911.

As subsidiary to the general clinical examination, Dr. Wall discusses somewhat critically some recent aids, such as radiography, recent developments in the search for the bacillus, tuberculin tests, and the opsonic index. The use of the X rays is considered of the greatest value to confirm the observations made by other methods, and has afforded most useful information in some of the complications of pulmonary tuberculosis, as also in determining the position of the heart and any

abnormalities in the respiratory movements. The recent developments in the direction of shortened exposures have added greatly to their value. In the case of non-discovery of bacilli by the ordinary methods, the antiformin method may be employed, by which a considerable quantity of the sputum—say all that has been expectorated in twenty-four hours—may be examined. Another method is the addition of a paraffin akin to petrol, namely ligroin, to the sputum after it has been shaken up with caustic soda. Again, the fæces may be examined by the antiformin process. Dr. Inman examined the fæces of twenty-six tuberculous patients; eighteen had tubercle bacilli in the sputum, and of these sixteen had them in the fæces: of eight without bacilli in the sputum they were found in the fæces in one. This method is recommended in the case of children who do not expectorate. Bacilli separated from the sputum by the antiformin method may be cultivated in Twort's ericolin solution, and from this animals may be inoculated. Dr. Wall is not satisfied as to the value of Jousset's pepsin method of detecting bacilli in pleural effusions. He has found bacilli in cerebro-spinal fluid several times after precipitating them by means of absolute alcohol or 5 per cent. phenol. The value of the reaction to Koch's old tuberculin is recognised as showing that there has been tuberculous infection somewhere in the body, though not necessarily indicating activity of the lesion. The mode of its employment is very clearly described. A case of spinal tuberculosis is narrated, which seemed to support the view that the reaction is more marked when there is tuberculous bone disease. The test is, in the author's opinion, of little value unless it is considered in conjunction with careful clinical observation, as it has been shown, for instance, that between 40 and 60 per cent. of the working classes give a positive reaction, though there are no signs or symptoms of tuberculosis, also von Pirquet's was found positive in 4 out of 10 cases in which there was no evidence of any disease, but at the same time was negative 10 times in 124 cases of undoubted pulmonary tuberculosis. The Midhurst results were more favourable, and led to the conclusion that a negative result was of value in the exclusion of tuberculosis. Dr. Wall considers that in practice it must be admitted that, so far as adults are concerned, it is not wise to attach any very great importance either to the presence or absence of the cutaneous reaction. The simple opsonic index test was positive in 73 out of 111 cases of pulmonary tuberculosis, and negative in 38. Its value is greatly increased if it is taken after rest and again after a period of exercise. Under all circumstances Dr. Inman found it positive in 85·71 per cent. of cases which were certainly tuberculous, in 67·91 in doubtful cases, while in non-tuberculous cases it was negative in 93·33 per cent. It will be seen that this paper gives in a condensed form a large amount of up-to-date information. *Dundas Grant.*

Weski, Oskar (Berlin).—Modern Dental Diagnostic Methods as Aids in Rhinology and Otology. "Zeitschr. f. Laryngol. Rhinol., etc." Bd. iii, Heft 4.

The writer calls attention to Gutzmann's apparatus for detecting the passage of air through the nose during speech. Under normal conditions air only passes when the individual pronounces M and N, but in cases of cleft palate air passes with all syllables. A suitable obturator restores the speech almost to normal. Weski rightly points out that medical men do not as a rule know much about dental pathology: it is, however, necessary to diagnose between periodontitis and pulpitis. If there be

pain on tapping the tooth the case is one of periodontitis, whereas if pain be set up by a sudden change of temperature—as by a mouthful of cold water—the case is one of pulpitis. Cases of dental caries can be diagnosed by inspection, but many apparently sound teeth are really diseased. Weski then gives details of two modern diagnostic methods: (1) the use of the induced current, and (2) the application of X rays to dental surgery. (1) The negative electrode is placed on the tooth under investigation while the patient holds the positive electrode in his hand. The normal sensitiveness of a tooth is about 3·5 cm. (Rollendeckung), whereas in early cases of pulp irritation it is reduced to 2 cm., and in the second stage of pulpitis (stage of exudation) the distance is only 1 cm. In the third stage the sensitiveness is diminished (5–6 cm.) If the disease is diagnosed the tooth may be saved by well-timed treatment. The author then gives an account of the anatomy of a tooth, and points out that each apical foramen only transmits one artery, so that in unicuspid teeth there is no collateral circulation if this vessel be occluded; the circulation in the teeth is a closed one like that in the brain or kidney. The diagnosis of "Dentikel" formation can now be confirmed by a radiograph. The author decribes the method of dental radiography. Retained wisdom teeth may cause severe neuralgia, and even antral suppuration: here, again, a dental X-ray picture is of use. Traumatism, forgotten by the patient, may lead to dry gangrene of the tooth; secondary infection may set up moist gangrene, which may again pass through the apical foramen and cause periodontitis and granuloma. In all forms of inflammation of the root of the tooth epithelial cells of embryonic origin are seen in microscopic examination; these may lead to the formation of radicular cysts which somewhat resemble granulomata on the X-ray plate. Follicular cysts on the other hand arise from a tooth-follicle and surround the crown of a retained tooth. Suppuration in the antrum may be of dental origin even though the teeth in relation to the antral floor may appear perfect; for this reason it is important to test the electric sensibility of these teeth and to take a dental radiograph, which would show the presence of an alveolar recess—a condition favouring antral suppuration of dental origin. Weski allows that dental radiographs may be ambiguous like other X-ray pictures. Finally, the author calls attention to the fact that otalgia may be due to disease of the teeth. Cases due to pulpitis in which the tooth appears outwardly sound are especially difficult to diagnose.

J. S. Fraser.

NEW INSTRUMENTS.

Hill's Œsophago-Gastroscope; A Modification of the Hill-Herschell Gastroscope for Combining Direct and Indirect Vision.

The left-hand diagram shows Hill's direct-vision inflating œsophago-gastroscope, on the principle of the sigmoidoscope, approaching the phrenic constriction of the gullet. After the instrument has been passed into the stomach and the region of the cardia explored, with or without inflation, the Brünings' handle-lamp is removed and Killian's handle substituted;

https://doi.org/10.1017/S1755146300187700 Published online by Cambridge University Press