Spontaneous vertical nystagmus. Rotation tests:—

Rotation to the right, head erect, nystagmus to the left, 6 secs.
Rotation to the left, head erect, nystagmus to the right, 6 secs.
Rotation to the right, face downwards, nystagmus to the left, 4 secs.
Rotation to the left, face downwards, nystagmus to the right, 4 secs.
Rotation to the right, head on right shoulder, vertical downward nystagmus, 3 secs.
Rotation to the right, head on left shoulder, vertical upward nystagmus, 2 minutes.
No discomfort produced; no head or body reaction.

Diagnosis was made of a lesion of the auditory nerve on each side; total deafness on the left side; a lesion of vestibular nerve on both sides.

The otological condition suggested the probability of a basal affection. ? Lues.

The patient died and the post-mortem examination revealed a superficial carcinomatous infiltration over both cerebral hemispheres, the primary growth being apparently in the pancreas.

ABSTRACTS

THE EAR.

On the Occurrence of Gaucher Cells in the Petrous Bone with Remarks on the Causal Genesis of Otosclerosis. H. BRUNNER, Vienna. (*Zeitschrift für Hals-, Nasen-, und Ohrenheilkunde*, Band xxii., Heft 1.)

A case is described of Gaucher's splenomegaly in which death ensued; on microscopic examination of the petrous bone a patch of typical otosclerosis was found, with, in addition, Gaucher's cells in large numbers in the reticular medullary spaces of the bone. The case seems to be a unique one. Tinnitus developed in 1916, pain in the ear in 1923 with ordinary acute otitis. A considerable amount of dullness of hearing followed. The patient subsequently developed a condition suggestive of typhoid, with extreme enlargement of spleen and liver.

Comparing and contrasting otosclerosis, Gaucher's disease and osteitis deformans, the writer finds this in common, that their development depends on a disturbance of metabolism. In Gaucher's disease it concerns the cerebroside (cerasin), in osteitis deformans the calcium metabolism, in otosclerosis nothing that is definitely known. The petrous bone differs from other bones in that, owing to the early

conclusion of its development, there remain in it, up till advanced age, a chondroid supporting tissue and all the elements of the child's bone. It therefore differs probably also in its pathology.

Brunner combats Mayer's view that otosclerotic foci may be looked upon as tumour-like hyperplasias (hamartomata or "failure tumours"). Brunner's own view is that "otosclerosis is a dystrophic process which depends on an unknown metabolic disturbance in the bone and chondroid supporting tissue of the labyrinthine capsule. It develops on the basis of a constitutional transmissible weakness of tissue. The process gives rise to the formation of foci which can increase in size as long as the disturbance of metabolism continues. Their localisation is determined by the distribution of the main vessels."

The investigation of the other organs (skeleton and endocrine glands) in cases of otosclerosis has not yet been carried out. Such investigation might greatly increase our knowledge of the pathogenesis of the disease and possibly also of the treatment.

JAMES DUNDAS-GRANT.

The Röntgenology of Acute Mastoiditis. KLAUS FEIGNER, Stuttgart. (*Archiv. für Ohren-, Nasen- und Kehlkopfheilkunde*, Band cxviii., Heft 3, July 1928.)

The writer traces, in the form of a critical review, the gradual evolution of radiology as applied to mastoid disease. He evidently considers that with improved technique radiography is of sufficient value to be applied as a routine measure, more especially as an outcome of Wittmaack's researches into the pneumatisation of the temporal bone, and its influence upon the course of mastoid suppuration. Until recent years the chief object of radiography in such cases was to detect developmental abnormalities, and gross changes such as new growths of the temporal bone; but now more minute refinements of diagnosis are possible. A knowledge of the position of the lateral sinus is of value. The mastoid emissary vein can almost always be located. Körner's observation that the roof of the tympanic cavity is thinner in brachycephalic skulls than in dolichocephalics may be confirmed, and a gap or erosion in the tegmen tympani may be detected. It is obvious that information on this latter point might be of considerable importance in differential diagnosis between temporo-sphenoidal and cerebellar abscess. In acute suppuration veiling or obscuring of the cell walls is gradually becoming recognisable, with improved technique and increasing experience in the interpretation of the skiagrams.

The article is illustrated with nine skiagrams which are fully interpreted and accompanied by case histories and operative findings.

In order that the appearances in successive cases may be compared

a standardised radiographic technique is essential. The names of Stenvers and Sonnenkalb are associated with the radiographic planes favoured by the writer, and references to their works are included in the bibliography. W. O. LODGE.

X-ray Photographs in Diseases of the Ear. F. KRUMMEL. (*Zeitschrift für Laryngologie, Rhinologie, etc.*, Band xvii., July 1928.)

The side position of the head is the one most generally adopted. If we wish to compare the two temporal bones, the other side must be photographed using exactly the same angles, etc., and this introduces many technical difficulties.

The author describes a very much simpler antero-posterior method, which allows a direct comparison of the two sides on one plate. This method, judging from the illustrations, gives as much detail of the petrous and mastoid regions as one expects to see on plates obtained by the lateral method. The patient lies on his back with the occiput raised on a pillow and the chin pushed well into the chest. The centre beam should strike the frontal region 1 to 2 inches behind the hair line and should go through the foramen magnum.

J. A. KEEN.

Stimulation of the Cerebellum and Nystagmus. KARL GRAHE, Frankfurt. (*Zeitschrift für Laryngologie, Rhinologie, etc.*, Band xvii., July 1928.)

Two cases are described. In one, a child aged 13, the greater part of the right cerebellar hemisphere had to be removed after exploration for a doubtful tumour. Caloric tests which were done after the operation produced normal labyrinthine nystagmus. This shows that the vestibular reactions are independent of the cerebellum, a fact which has not often been verified in man although many animal experiments have been made.

The second patient, a young man aged 19, had been operated on for a left-sided chronic otorrhœa with cerebellar abscess. A small portion of the cerebellum (lobus biventer) was prolapsed into the mastoid cavity. Caloric tests in this instance produced an effect *opposite* to that expected from stimulation of the vestibule and semi-circular canals; cold syringing caused nystagmus to the left and this incidentally reversed a right-sided spontaneous nystagmus which existed before the test; warm syringing considerably increased the nystagmoid movements to the right.

Grahe thinks that the probable cause of this nystagmus was a direct stimulation of the small cerebellar area exposed in the operation cavity. Animal experiments have previously shown that it is possible to cause nystagmus by direct stimulation of the cerebellar cortex.

J. A. KEEN.

Abstracts

The Diagnosis of Cerebral and Subdural Abscess by Lumbar Puncture. G. V. Th. Borries. (*Annales des Maladies de l'Oreille, du Nez, du Pharynx et du Larynx*, May 1928.)

In spite of the introduction of lumbar puncture in otology, the diagnosis of cerebral and subdural abscess often presents the greatest difficulties.

Although sometimes no alteration can be shown to have occurred in the cerebrospinal fluid, in most instances it will be found to have changed in a varying degree.

On the assumption that every cerebral abscess produces more or less a certain degree of meningitis, the writer has demonstrated that the meningitis, sometimes only revealed microscopically at necropsy and called by him "minimal" meningitis, is not absolutely identical with the ordinary diffuse purulent meningitis but is of quite a different type.

Hence the clinical importance of this "minimal" meningitis does not depend on its existence as meningitis "per se," but as marking the symptoms of an abscess. For this type of meningitis he formulates the following rule. A "benign picture" as shown by the examination of repeated lumbar puncture (*e.g.* constant sterility, clearing of the fluid formerly turbid, disappearance of micro-organisms, etc.), and accompanied at the same time by an aggravation of other symptoms, especially cerebral, signifies that there exists not a primary meningitis but one secondary to an abscess.

The opposite, of course, is the picture in cases where the meningitis is not of abscess origin but is caused directly by the mastoiditis. It is therefore the dissociation or contrast between the course of the appearances of the fluid during several lumbar punctures and the aggravation of other symptoms that characteristically denotes the abscess. The same applies to cases of meningitis of abscess origin which are further developed and visible macroscopically.

Regarding the question of cells and organisms the writer further enunciates the following rules:—

(1) An abscess without any complication of active leptomeningitis may show a normal fluid. This is a very rare type.

(2) An abscess complicated by a "minimal" meningitis may show a clear fluid containing a small increase in cells and almost always sterile. This is a frequent type.

(3) An abscess complicated by a "minimal" meningitis or a meningitis macroscopically slight may show a turbid fluid but present a benign picture. There are numerous cells generally mononuclear, though a transient polynucleocytosis may be found; it is generally sterile though transient organisms may occur. This is a frequent type.

(4) An abscess complicated by meningitis macroscopically diffuse and purulent shows turbid fluid with a malign picture. There are numerous cells, more often of the polynuclear variety and often micro-organisms especially in the later stages. This type is a little less frequent. L. GRAHAM BROWN.

Purulent Meningitis. E. SCHMIEGELOW. (*Archives of Otolaryngology*, July 1928.)

The writer points out the advance made since the inception of lumbar puncture in 1891. Before this time, only fatal purulent meningitis was recognised as a true meningitis. The typical case of purulent meningitis is described and compared with the atypical case, now so often met with in aural clinics. Meningitis is divided into two groups, the septic form, when the cerebrospinal fluid contains cocci and bacteria, and the aseptic form, without either cocci or bacteria. To the clinical picture of septic meningitis nothing has been added. Exceptions to the usual fatal termination of this condition are given. The reasons of recovery in these cases are emphasised: immediate drainage of the primary focus, usually the ear; relief of pressure in the central nervous system by daily lumbar puncture; age of patient, prognosis in children being generally accepted as more favourable; intravenous injection of polyvalent streptococcal serum.

Several cases of aseptic purulent meningitis are quoted. In some of those cases the origin was definitely aural, while in others the etiology was obscure. Clinically, many apparently closely resembled acute attacks of influenza. In those cases, lumbar puncture proved the presence of meningitis, but it is not regarded as important in treatment. An interesting feature is the fact that symptoms clear up giving a period of good health, but often followed by further acute attacks at varying intervals. It is the "Meningitis paroxysmatica" of Quincke.

Other literature is quoted and stress is laid on the work of Borries in cases of otitic origin. Borries maintained that if a purulent meningitis proved to be aseptic (repeated lumbar puncture showing a clear cerebrospinal fluid), while at the same time the clinical symptoms of endocranial complications increase, this proves that the condition cannot be one of uncomplicated meningitis. The writer has had several such cases, death being due to primary abscess of the brain, the secondary meningitis clearing up, as proved by repeated lumbar puncture and the fact that no naked eye evidence of meningitis was found post-mortem.

Borries's rule, according to Schmiegelow, has provided a new clinical method of diagnosing cerebral abscess, when other symptoms are absent. C. E. SCOTT.

Abstracts

THE LARYNX.

The Cholesterin Reaction in Patients with Tuberculous Laryngitis. S. F. NIELSON, Copenhagen. (*Zeitschrift für Laryngologie, Rhinologie, etc.*, Band xvii., July 1928.)

The cholesterin content of the blood serum has often been connected with the defence reactions against infections of all types, and numerous references to previous investigations are given. As a general rule a high cholesterin level means a successful reaction against the invading organism; and *vice versâ*. At the beginning of an acute infection the cholesterin content is generally low.

The author has approached this question under special conditions, viz., in patients suffering from tuberculous laryngitis, who were undergoing treatment by general light baths. The cholesterin percentages for normal persons vary between 275 and 160 mg. per cent.; these values are fairly constant and they are independent of the cholesterin content of the food which is taken. Artificial light baths in normal "controls" did not cause any appreciable variation.

A table follows giving the results of the cholesterin tests in 53 patients; 35 were found to be within normal limits, 13 below the minimum and 5 above the maximum. The ultimate outcome of the disease is also given in each case. The author finds that the cholesterin figures, as single observations, have very little prognostic value. On the other hand, when frequent tests are done during the course of the disease, the variations in the cholesterin percentage have a distinct value. Repeated monthly tests were made in 29 of these patients and full clinical details are given in the article. It is then found that there is a very constant rise in the cholesterin content of the blood serum, as the larynx and the lung condition improve under the general light treatment. Unfortunately the quantitative test for blood cholesterin is very complicated.

There is also an attempt to explain the relation between the ultraviolet rays and the blood cholesterin. An analysis of the lipoids of the human skin has shown that 13 to 24 per cent. of all the lipoids in the superficial layers of the epidermis are in the form of pure cholesterin; in the subcutis the percentage is very small, *i.e.*, 0.24 per cent. The light rays only penetrate the very superficial layers, and it may be that they cause the skin cholesterin to become mobilised in the circulation when required. This is an interesting point and it falls into line with the recent work on irradiated cholesterol.

J. A. KEEN.

The Larynx

Radiography with Contrast Material in Laryngeal Tuberculosis. GEORG KELEMEN. (*Archiv. für Ohren-, Nasen- und Kehlkopfheilkunde*, Band cxvii., Heft 3, March 1928.)

Dr Kelemen of Budapest discusses the value of radioscopic examination of the larynx and describes three cases in which dysphagia was present. Four radiograms are reproduced, conveying striking impressions of the degree of functional impairment. Infiltration and absorption of lime salts in the ossified cartilages of older subjects are also discernible. Réthi's antero-posterior technique, in which the film is lowered into the hypopharynx, is capable of yielding still more exact information. References to the small amount of literature upon the subject are appended. W. O. LODGE.

Laryngeal Tuberculosis and Oral Lupus treated with Wessely's Carbon Arc Light. W. SCHREYER, Breslau. (*Zeitschrift für Hals-, Nasen- und Ohrenheilkunde*, Band xix., Heft 5.)

Of 17 selected cases of tuberculosis of the larynx, 7 got perceptibly worse and 3 remained practically stationary. One improved and then became worse. Four cases of infiltration of the interarytenoid region healed with the formation of cicatrices. In one case of excavating ulcer of the vocal cord improvement took place.

Extensive lupus of the oral mucous membrane was similarly treated in 15 cases, after reaching a stationary point with other treatment, and was found very amenable. In 10 there was perfect healing and in 4 considerable improvement. One was unaffected by the radiation but yielded later to mesothorium. In circumscribed patches the older methods are considered applicable, but for the widely extended areas radiation is better. That the action is local and not merely general is shown by the fact that parts protected from the rays remain unhealed while those exposed to them heal up.

Lupus in the nose is less adapted for the rays and answers well to curetting with subsequent lactic acid treatment as formulated by Hinsberg. JAMES DUNDAS-GRANT.

Treatment by Phototherapy in Laryngeal Tuberculosis. Special Treatment by Baths of Artificial Chemical Light combined with an Intralaryngeal Surgical Treatment. O. STRANDBERG, Copenhagen. (*Annales des maladies de l'Oreille, du Larynx, du Nez and du Pharynx*, July 1927.)

The writer claims for his own choice of method more than 50 per cent. of cures. As regards the particular source of light used he explains how real sunlight is unquestionably best of all, but failing this how necessary it is to choose an artificial source as like sunlight as possible, viz., one that contains the greater possible number of blue,

violet and ultra-violet rays of the greatest wave length and which also contain brilliant heat rays. Amongst the latter are the carbon arc lamp, the mercury quartz lamp, and those of iron and of tungsten. Again, of these the carbon arc lamp is best. Further, he described fully the better types of lamp, the methods of their installation and employment, not forgetting the economic side of the question, the class of case to treat, and, finally, the duration and results of treatment.

He points out the futility so far by modern apparatus of direct treatment by light on the larynx, and hence in his practice resorts to the general light bath. At the same time he shows that the duration of treatment is much shortened if an appropriate local treatment to the larynx is made. L. GRAHAM BROWN.

Four Cases of Laryngeal Tuberculosis in Children cured by Artificial Pneumothorax. H. CABOCHE. (*Annales des maladies de l'Oreille, du Larynx, du Nez et du Pharynx*, May 1927.)

The four cases recorded are those of children aged 13 to 14 years, all of whom definitely suffered from tuberculous lesions in the larynx as well as lung.

The treatment consisted simply in the practice of artificial pneumothorax and weekly instillations of eucalyptus oil into the larynx. In each case the retrogression of the laryngeal lesion was periodically watched and recorded (diagrams reproduced), total disappearance taking place generally in less than a year.

The cases illustrate the beneficial action of the method on the larynx as well as the whole respiratory tree. The mechanism of cure is difficult to determine; but it is thought probable to be due to the suppression or diminution of the cough, and thus relative rest given to the larynx and lung.

As in the adult where 40 to 60 per cent. are now cured under strictly favourable conditions of treatment, so in the child laryngeal tuberculosis must no longer be considered beyond therapeutic resources.

L. GRAHAM BROWN.

THE ŒSOPHAGUS.

Cicatricial Stenosis of the Œsophagus. LINDLEY SEWELL. (*Lancet*, 1928, i.)

The author discusses the symptoms, diagnosis, prognosis and treatment. The condition is much more common in America, where lye-drinking is the chief cause. Stricture may occur at the level of the left bronchus, at the level of the cricopharyngeus or the circular fibres of the inferior pharyngeal constrictor, or at the level of the diaphragm. The author prefers the Gabriel Tucker method, by

means of which, after the performance of a gastrostomy, one frees the œsophagus from the irritation of retained food; it soon causes the œsophageal lumen to enlarge sufficiently to allow the swallowing of a silk thread with which a bougie can be pulled through the stricture. Full details are given in the paper and three cases are reported. MACLEOD YEARSLEY.

Some Abnormal Forms of Cancer of the Œsophagus. J. GUISEZ. (*Bulletin d'Oto-Rhino-Laryngologie*, January 1928.)

In the great majority of cases of cancer of the œsophagus the clinical picture is always the same. The writer states that out of 1600 cases diagnosed by œsophagoscopy he found that about 2 per cent. did not conform to the well-known typical symptomatology. These he describes as abnormal types according to the following headings:—

(1) *Latent Forms.*—Here the cardinal symptoms of dysphagia can be altogether absent, and the true diagnosis is often only made at autopsy. Thus, before the advent of radioscopy and œsophagoscopy they have been confused with cancer of the larynx, laryngeal syphilis, aneurism of the aorta and even pulmonary tuberculosis. Sometimes they have only been revealed on searching for a foreign body with the œsophagoscope, or as a complication of œsophageal dilatations. In the latter conditions the writer considers the chronic œsophagitis set up as being a true precancerous state.

(2) *Slow Forms.*—Here the progress of the cancer is slow, particularly in old people, and the difficulties of deglutition only become marked after a year or more. The cancer is of the infiltrating scirrhus type.

(3) *Rapid Forms.*—These occur generally in young patients, under 30 years of age, and the progress of the dysphagia is extremely rapid, a few weeks to two or three months. The growth is usually of the large exuberant kind.

(4) *Sarcomatous Form.*—These are extremely rare, are very painful, and the dysphagia is generally early. The growth may be mixed with carcinomatous elements.

(5) *Secondary Forms.*—It is not rare in advanced cases to find cancer of the œsophagus extending to neighbouring organs, *e.g.* trachea and bronchi, with accompanying fistulæ. The reverse, however, has been shown to occur, and this may lead to errors in diagnosing the site of the primary cancer. Moreover, they may be secondary to such sites as the larynx, cheek and breast, the writer recording cases of this kind.

(6) *Multiple Cancers.*—Rarely, more than one cancerous growth may appear in different sites of the œsophagus at the same time.

L. GRAHAM BROWN.

Abstracts

ENDOSCOPY.

Foreign Bodies in the Bronchus of Intrapulmonary Origin, with Report of a Case. PORTER P. VINSON, Rochester, Minnesota. (*Surgery, Gynæcology and Obstetrics*, Vol. xlv., No. 4, October 1927.)

Calcified bronchial lymph nodes may ulcerate into the bronchi and cause lung suppuration.

A man, aged 53, had had cough and foul sputum for a period of five months, and three weeks before admission a severe pulmonary hæmorrhage. He was gravely ill, and a bronchoscopic examination revealed a stricture in the lower lobe bronchus on the left side. This was dilated and much foul pus aspirated.

After eleven days he relapsed and a second bronchoscopic examination revealed three calcareous particles in the bronchus, below the stricture.

The patient died, and at necropsy in addition to chronic tuberculosis of the left lung, and left empyema with multiple sacculations, two large calcareous masses were found lying free in the left lower lobe bronchus below the stricture. The masses appeared to have ulcerated into the bronchus at the point of division of the left main bronchus.

Four references are given. W. STIRLING ADAMS.

Auto-Expulsion of Open Safety-Pin from the Stomach. HENRY BOYLAN ORTON. (*Laryngoscope*, Vol. xxxvii., No. 11.)

This case was reported at a recent meeting of the American Bronchoscopic Society. As far as can be ascertained there is no case on record of an open safety-pin which was swallowed, lodged in the stomach, then regurgitated into the œsophagus and lodged there, and later was spontaneously expelled from the mouth, falling into the hand of the mother. The patient was an infant, aged 7 months, who swallowed a safety-pin; X-ray showed the pin in the stomach. After a week another X-ray showed the pin, point downward in the œsophagus about the level of the 2nd costal cartilage. After arrangements had been made for œsophagoscopy, the child vomited and expelled the pin out of the œsophagus. ANDREW CAMPBELL.

Open Safety-Pins in the Stomach and Œsophagus. SAMUEL IGLAUER. (*Laryngoscope*, Vol. xxxvii., No. 11.)

CASE 1 occurred in the infant daughter of a physician. An X-ray showed the pin with the point downward in the lower third of the œsophagus. On œsophagoscopy, curds of milk were found in the lower œsophagus and on withdrawing the œsophagoscope the patient regurgitated the curds and pin.

CASE 2.—A child, aged 7 months, swallowed a safety-pin and this was seen by X-ray to be in the stomach. It was hoped that the pin

would pass by the bowel, but two days later another X-ray showed the pin point downwards in the œsophagus, on a level with the 4th and 5th dorsal vertebræ. On removal the pin measured 2.5 cm. in length.

In neither of these two cases was vomiting observed after swallowing the pin. As a rule, most safety-pins lie in the œsophagus point upwards, and it is probable that these with the point downward have reached the stomach before being regurgitated point downward into the œsophagus, as happened in Case 2. ANDREW CAMPBELL.

MISCELLANEOUS.

Cocain Intoxication and Poisoning in Local Anæsthesia. DAVID M. GREIG. (*Edinburgh Medical Journal*, August 1928.)

Mr Greig introduces the subject by quoting a case published by B. Danelius in *Acta Oto-laryngologica*, 1928, xii., 395, in which the typical symptoms of acute cocain poisoning are ascribed to cerebral air embolism, the air having been present in the hypodermic syringe by which the anæsthetic was introduced. The patient was prepared for tonsillectomy by painting the throat with 10 per cent. cocain solution, with adrenalin, and then injecting the tonsil with $\frac{3}{4}$ per cent. novocain solution, prepared with suprarenin and potassium sulphate. The patient became pale and unconscious, his body became rigid and then seized with violent clonic cramps. Respiration ceased and the pulse became uncountable. After a few minutes, respiration became re-established and consciousness returned in about half an hour. Mr Greig regards Danelius's explanation of air embolism as inadequate and he attributes the symptoms to acute cocain poisoning, which he himself has observed on several occasions after the injection of a drachm of 10 per cent. cocain solution into the urethra prior to instrumentation. He describes in detail four cases, two of which were fatal. On many occasions he has noted minor disturbances, such as faintness, giddiness and pallor, following injections into the urethra of 5 to 10 per cent. solution of cocain. The milder forms of cocain intoxication are not uncommon and cocain should be regarded as too dangerous a drug for routine use. There are efficient and safe substitutes which should take its place. DOUGLAS GUTHRIE.

Cleft Palate Repair—the Cause of Failure in Infants and its Prevention. STERLING BRUNNELL, San Francisco. (*Surgery, Gynæcology and Obstetrics*, Vol. xlv., No. 4, October 1927.)

The main cause of failure in repair, especially in infants, is the sucking action of the tongue. Measured by a manometer in new-born babies this force averaged 152 mm. Hg. and the pull on the palate is calculated to be 7 oz. multiplied by the number of square centimetres of the palate involved in sucking. The adult manometer reading was 440 mm. Hg.

The author brings the alveolar processes into alignment soon after birth by Brophy's method, and repairs the lip when the child is 2 to 4 weeks old. 50 c.c. of the maternal blood is injected into the basilic vein of the infant at the end of operation. Closure of the palate is done one to three months later, in two stages—the first elevating the flaps, which are then allowed to fall back and remain in place. A week later the flaps are again raised and sutured. In the interval the flaps establish their pedicle vascular supply. In order to protect the palate a silver plate is prepared from a stent impression of the child's palate, made at the first stage of operation before the flaps are raised. After suture of the palate the plate is inserted and kept in position by wires fixed to it which are brought out at the angles of the mouth, and fixed by rubber bands to a plaster cap on the child's head.

Details of the pre- and post-operative treatment, especially of the method of cleansing the plate, are given. The results of cleft palate suture have been entirely satisfactory since it has been in use.

The plate and method of fixation is illustrated, but the number of cases treated by this method are omitted. W. STIRLING ADAMS.

REVIEWS OF BOOKS

Leçons sur l'Exploration de l'Appareil Vestibulaire. L. BALDENWECK. Vigot Frères: Paris, 1928, pp. 308, 188 illustrations. Price 40 francs.

This book, as stated by the author in the foreword, is an exact copy of his lectures as they were taken down by the stenographer. He has not hesitated to retain in the text any repetitions, which he thought necessary for emphasis while lecturing, as he believes they will be equally helpful for the reader. The book is written in an easy style and all explanations are very simply and clearly given. The book is so written that the text is on the left side, the page on the right side being reserved for drawings and diagrams. Where there are no diagrams this right-hand page is left blank for the reader's notes. To avoid the necessity of referring back, diagrams are freely repeated. There are nine lessons or chapters.

In discussing the anatomy and physiology of the labyrinth, he gives the laws of Flourens and Ewald to facilitate the interpretation of the clinical tests for labyrinthine function.

The author carefully points out that for testing the vertical canals by rotation, the head not only must be bent forwards or backwards, but care must be taken to place the head in such a position that one anterior canal and the opposite posterior canal will be lying horizontally in the same plane.

The caloric test is simplified by giving a practical modification of