perforation in the roof of the left orbit communicated with an abscess in left frontal lobe. An extensive suppurative basal meningitis extended over the interpeduncular space, pons Varolii and medulla, and lower surface of each lateral lobe of cerebellum. There was pus in the left cavernous sinus.

The following three were cases of chronic nasal suppuration:

Case 7.—Male, aged thirty-four. Sub-periosteal orbital abscess, no swelling of lids, no proptosis, but a small swelling at inner end of left upper lid, into which a probe could be passed through a fistula. Large left middle turbinal, pus in middle meatus. Operation revealed destruction of part of lacrimal bone and os planum. The middle turbinal was removed and the ethmoid cells broken down; recovery in a few weeks.

Case 8.—Female, aged forty-eight. Epiphora for two years: for some months swelling of left upper eyelid, forward, downward, and outward displacement of eyeball; small sinus just below centre of left supra-orbital margin, discharging thick greenish pus; diplopia. At the operation a hole was found in the floor of the left frontal sinus: pus was found in frontal sinus, anterior ethmoid cells, and antrum; the frontal sinus was obliterated, the cells broken down, and the antrum opened through alveolus; recovery. A pure culture of *Streptococcus brevis* was made from the pus from frontal sinus.

Case 9.—Female, aged sixty. Swelling of left upper eyelid began eighteen month before admission, remained constant for about a year, then began to increase, and pains began to occur in left eye; about two months later had an attack of influenza, during which she noticed discharge from *right* nostril. The amount of swelling varied; no headache; eyesight not interfered with; no epiphora; no diplopia. On admission left upper eyelid red and œdematous, and a tense swelling occupied middle and inner thirds of upper eyelid. Left side of nose normal; pus in right middle meatus; right middle turbinal œdematous. At the operation it was found that the whole floor of the left frontal sinus had been absorbed, the sinus was full of pus; no ostium frontale could be found, but there was a perforation of the interfrontal septum. At the operation, therefore, the left frontal sinus was obliterated without any attempt being made to open down into the left side of nose. The right frontal sinus was also obliterated, a large free opening being made into right side of nose; recovery.

In the pus were found *Bacillus mesentericus*, *Micrococcus catarrhalis*, *Staphylococcus pyogenes albus*, bacillus of Hoffman, and a bacillus not identified.

These nine cases occurred in the author's practice during seven years, and form 7 per cent. of the cases of acute and chronic frontal and ethmoidal suppuration coming under his observation in the same time.

Arthur J. Hutchison.

LARYNX.

Sargnon (Lyons).—*Direct Endoscopy, especially in its Application to Laryngology.* "Archives Intern. de Laryngol.," 1908–1909.

In this work the author studies the result of his experience in regard to—

(1) The respiratory passages;
(2) The digestive passages;
(3) The other orifices of the organism.

General Scheme of Direct Endoscopy.—This includes a source of illumination and a hollow metallic tube supplied with a mandrin. Following de Cigna's example, the author uses for the œsophagus and larynx a mandrin curved like a crutch catheter (*sonde à béquille*), which facilitates the introduction of the rigid tube, whether by intubation or indirect laryngoscopy. A series of mandrins are adapted to the same introduction tube. Like Moure, he always employs Clar's frontal lamp, which greatly simplifies the technique for the various modes of endoscopy. The use of the hydraulic fluid extractor (*trompe à eau*) makes the manœuvres much easier. Local anæsthesia serves in particular for œsophagoscopy, direct laryngoscopy, inferior or retrograde tracheoscopy, inferior gastroscopy, and, in exceptional cases, proctoscopy. General anæsthesia is reserved for œsophagoscopy and tracheoscopy in difficult cases, accompanied by operative extraction or section. General anæsthesia is to be avoided in elderly people with œsophageal strictures, and in the subjects of bronchitis or slight pyrexia on account of pulmonary complications, which are sometimes most serious.

(1) *Endoscopy in the Respiratory Passages.*—The author has used direct laryngoscopy in a case of diffuse papilloma; the child was cured by tracheotomy and repose of the larynx (Vignard and Sargnon). It is chiefly for those wearing cannulas and cannula tubes that direct laryngoscopy has been been used by the author, and above all after the failure of Escat's forced laryngoscopy. The lower tracheal opening is very useful for examining the trachea by means of the short tracheoscope with a fenestrated metal mandrin, and also in order to diagnose the inferior decubital ulcers from the presence of the cannula or papilloma beneath the cannula, and to search for foreign bodies; the author reports a case of extraction of a sequestrum of the cricoid which had fallen into the trachea (Poucet and Sargnon).

In a young child he removed a drainage-tube which had fallen into the trachea. He points out the difficulty of the diagnosis between œsophageal foreign bodies arrested at the level of the bronchial bifurcation and intra-bronchial foreign bodies (a case of Vignard and Sargnon). He has used direct subglottic and retrograde tracheo-laryngoscopy a great deal, and employs for this a fenestrated tracheoscope which allows of respiration. The examination is made in Rose's position, with extreme inversion.

(2) *Direct Endoscopy in the Digestive Passages.*—The author has always used direct hypo-pharyngoscopy with Killian's bivalvular tube-spatula. Œsophagoscopy, which is very often practised, is sometimes dangerous in those who are weak, those with pyrexia, and those who suffer from bronchitis. The author has observed with MM. Tixier, Gayet and Vignard, two cases of death from broncho-pneumonia, the first in a child who already had bronchitis, the other in an old man with pyrexia. It is preferable, if possible, to do rapid œsophagoscopy, which is less likely to lead to complications. The author has seen a series of cicatricial stenoses; so far he has always been able to get past them, even in the most difficult cases of very close and multiple stenoses. In two patients he practised internal œsophagoscopic œsophagotomy; one of these patients, who was very weak, died of broncho-pneumonia fifteen days after the operation, which had permitted of the passing of an endless gastro-buccal thread. In one case, seen with M. Nové-Josserand, no less than fifteen endoscopic examinations and dilatations were necessary for the patient to be able to swallow the endless thread, by which a satisfactory functional result was brought about. In these serious cases,

when gastrostomy is performed, the author combines the two methods of superior and retrograde œsophagoscopy, which is much easier and much better tolerated. Œsophagoscopy has made it possible to recognise many cases of stenosis, with or without ulceration, particularly the spasms accompanying subjacent neoplasms, and even to see a neoplasm of the pylorus which had been overlooked (Châtin and Sargnon).

The author employed œsophagoscopy in two cases of neoplasm at the orifice of the œsophagus with bilateral recurrent compression; one had had tracheotomy performed and died of broncho-pneumonia.

With regard to the extraction of foreign bodies, the author uses Kirmisson's hook in recent cases, releasing the foreign bodies under cocaine with his œsophageal cotton-wool holder when it is possible to push them back (pieces of meat, small bones, and even fish-bones). With Vignard and Thévenot he has seen a traumatic œsophago-tracheal fistula with subcutaneous emphysema in a child who had swallowed a stone. Œsophagoscopy is used for other cases. The author treats certain spasms of the œsophagus by means of direct cocainisation with his œsophageal cotton-wool holder; in a patient with severe stenosis he was in this way able to avoid a gastrostomy.

He systematically uses proctoscopy, which is one of the easiest forms of direct endoscopy.

He notes particularly a case of spasm in a young patient suffering from mega-colon. Direct pleural endoscopy might be of service in cases of pleurisy complicated by the presence of foreign bodies. With Vignard he had observed a pleural gangrene of the pulmonary periphery, caused by a foreign body; an attempt at its ablation by way of the pleura had not been successful; the patient was too exhausted to permit of any other explorations; he died before there was time to make a second attempt.

The author considers that direct endoscopy in certain fistulas caused by foreign bodies may be of great service and simultaneously bring about a diagnosis of their presence and their removal. He has successfully used direct endoscopy of the maxillary antrum through fistulas of the alveolus and the canine fossa; for this he uses endoscopes 4 mm., $4\frac{1}{2}$ mm. and 5 mm. in diameter, and has thus been able to ascertain that in simple empyema the mucous membrane may granulate slightly or not, whilst in true sinusitis the numerous polypi bleed at the least touch and are surrounded by multiple abscesses. Direct endoscopy of the maxillary sinus enables one—

(1) To ascertain the condition of the mucous membrane and consequently to know whether to perform a radical operation;

(2) To remove a fragment for examination in a case of suspicious growth;

(3) To extract sequestra.

In one case he had been able to extract a drainage-tube which had fallen into the sinus a month previously, to cauterise granulations with tincture of iodine, and to cure the patient without a radical operation.

To sum up, the author concludes that direct endoscopy, a rational method more or less easy of application according to the organ which has to be explored, is acquiring an increasingly great importance for diagnosis by means of visual data, and the possibility in many cases of a biopsy; it allows at the same time of the therapeutic removal of certain benign tumours, foreign bodies, and the incision and dilatation of cicatrices. It has already brought about many practical results in regard to the œsophagus, the larynx, the trachea and the bronchi, where its use is becoming almost

a routine. The other natural orifices are beginning to be benefited by it to a great extent. Its field of action, which is in great measure dependent on the laryngologist, cannot but increase.

Author's abstract (*trans. K. Dickson.*)

Trumpp, J. (Münich).—*Concerning a Remarkable Anomaly, both from a Clinical and Anatomical Point of View, in the Larynx and Trachea, with some Reflections on the Ætiology of Congenital Laryngeal Stridor.* "Arch. f. Kindh.," vol. l, 1909.

The author describes a case of a little boy, aged one and a half, that died from the effects of miliary tuberculosis. The *post-mortem* examination revealed what he considers to be a unique condition of the larynx and trachea, as the cricoid cartilage was partially lacking and represented by what would correspond to the upper border of a normal cricoid at that age, whilst only the lateral portions of the two first tracheal rings could be found, fibrous tissue completing the laryngo-tracheal tube in this situation. Three drawings are given illustrating the condition. The intrinsic muscles of the larynx were apparently normal but weakly developed, and the mucous membrane contained two abnormal pockets and was thickened in places with scar-tissue. The question as to whether all this should be regarded as due to an arrest of development, the result of disease or due to trauma (the child had been intubated), is discussed at length and an account given of the history, etc. The fact that no stridor occurred in this case under these conditions suggested to Trumpp this would be a suitable opportunity of reviewing the various theories as to the causation of congenital laryngeal stridor, a critical *resumé* of which he accordingly adds, and concludes with his own hypotheses on the subject. It is not easy, however, to gather in what way he really differs from other observers, although perhaps his explanations are given in different terms, but the article nevertheless forms a valuable digest of the various suggestions which have been offered to account for this pathological condition.

Alex. R. Tweedie.

Perretière, A. (Lyons).—*Laryngeal Fatigue.* "Rev. Hebd. de Laryngol., d'Otol., et de Rhinol.," December 19, 1908.

The causes and signs of fatigue of the organ of voice from its excessive or improper use are first discussed. The most important part of this paper, however, consists in that which deals with the various effects of overwork, which can be seen on laryngoscopic examination. Simple congestion of the parts is the commonest; then follow alteration of form, paresis, and a peculiar type of catarrh. These lead on to the formation of vocal nodules, chronic laryngitis, polypi, and disturbances of the muscular apparatus. Rest is a remedy of the first importance.

Chichele Nourse.

Imhofer, R.—*On Phonasthenia in Singers.* "Prag. med. Wochens.," 1909, xxxiv, S. 227.

Flatau was the first, in 1906, to publish a short monograph on functional weakness of the voice (phonasthenia), in which he described fully a condition which must have been frequently observed by every laryngologist. The author has observed thirty-six cases since Flatau's publication. Flatau defines phonasthenia as a disturbance or loss of function without a mechanical interference as the primary cause. Any waste of power may lead to phonasthenia, and therefore any incorrect method of voice pro-

duction, which is indeed the commonest cause of the condition, but it also frequently occurs in anæmia. Most patients believe they suffer from cold; they have a feeling of mucus or something in their throat, and a constant desire to clear the throat. On examination nothing is found, or what means much the same—a great deal—slight turbinal enlargement, septal deviation, granules on the pharyngeal wall, etc., while in the larynx irregularity of the edge of the vocal cord or a sharply defined injection.

Certain evidence that this condition is present is obtained by testing the voice, for the trained ear can detect errors in the production of the sound usually in one register; this is most marked with soft notes, least marked when singing *forte*. This can be obviated by three methods: (1) By use of faradic current during intonation; (2) by compression of the larynx; (3) by vibratory massage. The author makes use of the first method; the tone then becomes pure, and the diagnosis of phonasthenia is complete. Treatment consists in the application of the faradic current.

W. G. Porter.

EAR.

Herschel, Karl.—*A Case of Congenital Atresia of the Auditory Meatus in which the Auricle was Normally Developed.* "Monats. für Ohrenheilk.," Year 43, vol. iii.

Herschel has been able to find an account of only four such cases in the literature on the subject and remarks on the apparent rarity of this combination.

His patient was an old woman the offspring of blood relations, who, he incidentally states, had herself married a blood relation, and yet her children, it spite of this condition of affairs, showed no abnormalities and had good hearing.

The meatus was occluded by a plate of bone covered with skin at its outer end, in which, however, a slight depression existed at the upper and posterior angle, admitting a probe easily.

Her range for whispers was 10 cm., the lower tone limit the tuning-fork C, the upper tone limit hardly depreciated at all, whilst the function of the labyrinth is described as good. This latter condition he suggests is what is most usually found in these cases. The Eustachian tube was patent, as was evidenced by a normal sound on catherisation.

An opportunity occurred of examining the case *post-mortem*, when it was found that the tympanic membrane was entirely absent.

After touching on the unfavourable prognosis in respect of operative attempts to remedy matters in cases of congenital atresia of the meatus, Herschel associates himself with Alexander's views to the effect that if any surgical interference is carried out it should be of the nature of a "radical operation," and he insists that a very accurate anatomical knowledge is absolutely essential to obtain a successful issue.

Alex. R. Tweedie.

Herschel, Karl.—*A Case of Cholesteatoma which Healed Spontaneously* "Monats. für Ohrenheilk.," Year 43, vol. iii.

Both this account and the one following refer to two cases which the author showed at the meeting of the specialists in throat, nose, and ear diseases from the kingdom of Saxony held at Jena, October 4, 1908.

The cure in this case occurred owing to the cholesteatoma, which lay in the mastoid process, eroding the posterior wall of the meatus and thus working its way outwards. The patient was a man, aged forty, who had