and left arytænoid. This process, arising in three different parts of the larynx, could not be anything but tubercle.

Double Abductor Paralysis.—William Hill.—This man had portion of a large goitre removed twelve years ago by two vertical incisions in the neck, and both recurrent nerves have probably been involved in deep contracting scars. It is noteworthy that only the abductor fibres are affected. Alarming attacks of laryngeal obstruction occurred at times on exertion and more especially at night, when he suffered from a severe cold. These attacks have become worse recently. The question is raised whether unilateral chordectomy and removal of the vocal process of the arytænoid will relieve the obstruction, and whether the voice will necessarily be reduced to a whisper, seeing that adduction is still apparently perfect. Good results have occasionally been reported following unilateral chordectomy, but not by well-known laryngologists, as far as can be gathered, suggestions are invited.

Mr. Rose: I was present at the operation undertaken for the relief of the paralysis of the vocal cord on a horse some years ago, and I helped Prof. Hobday to operate. The result in that case was not such as to encourage doing the operation on the human subject; there was no material benefit to respiration.

Dr. Donelan: I think that if the patient would consent to the loss of his voice there should be no difficulty about cordectomy, any more than there would be in respect of removal of cords in epithelioma of the larynx.

Recurrent Ulceration of the Mouth.—H. Lambert Lack.—The patient, a woman, aged twenty, has been under my care since May for repeatedly recurring ulceration in the mouth, which commenced last Christmas. She has had similar attacks ever since she had chicken-pox at the age of ten. All the previous attacks have been mild compared with the present one, and have lasted one or two months. Then there has been an interval of at least six months. The spots commence as lenticular or rounded ulcers, with a white sloughy base and surrounding inflamed area. They are very tender and slowly increase in size. So far as I have observed, the spots show no tendency to disappear, except under treatment; one spot which was untreated for three or four weeks attained the size of a sixpence, with a very thickened base. They occur on the mucous membrane of the lips, inside of the cheeks, gums, palate, and tongue. Three years ago they were found on the vagina. The treatment has been the local application of nitrate of silver, which has always seemed effectual, but not in preventing fresh attacks. The Wassermann reaction is negative. The patient is in excellent health otherwise.

Suggestions as to diagnosis and treatment would be welcomed.

Abstracts.

NOSE.

Collapse of the Alæ Nasi: Its Etiology and Treatment.—Warren C. Batroff. The "Laryngoscope," 1915, p. 72.

The writer has been impressed with the results obtained by Halle and Joseph, of Berlin, in the plastic surgery of the nose and nasal orifices. He states that pathological collapse of the alæ nasi occurs during forcible

inspiration. Normally these structures should slightly dilate with deep breathing. The patency of the nostrils is maintained by (1) The normal resiliency of the wings of the nose, (2) By the presence of the alar cartilage, (3) By the muscles that act on the alæ nasi. With partial closure of the nasal wings, mouth breathing occurs. This results in continuous negative pressure in the nose, producing chronic hyperemia with secondary hypertrophic changes. Neurotic patients complain bitterly under these circumstances. Collapse of the alæ occurs at a secondary affection in individuals who have suffered from nasal obstruction for years. The causes of alar collapse are: (1) Atrophy of the levator muscles; (2) Relaxation of the subcutaneous tissue; and (3) Sharp vertical curvature of the alar cartilage.

Anomalies of the septum membranaceum (commonly called the columella. J. S. F.), have received little attention. This structure may be very broad, thus narrowing the lumen of the nostrils. This may be due to the anterior inferior nasal spine projecting sharply forward.

Treatment.—This has generally taken the shape of some form of (1) Splint or dilator, which may vary from a ring of soft rubber tubing to the anatomically perfect, hard rubber type of Schmidhuisen. These appliances prevent the normal vibration of the alæ, which regulate the intake of air. (2) Cotton balls coated with vaseline and tucked into the navicular fossa (Heerman). These permit proper exercise of the muscles. (3) Exercising the atrophied muscles against slight resistance before a mirror (Lambert Lack). (4) Should the alar cartilage be so sharply bent that the upper edge lies against the septum, it is advisable to make an incision under local anæsthesia through the mucosa, parallel to and slightly below the upper edge of the alar cartilage; elevate the mucosa, and cut away a narrow strip of the cartilage to restore the lumen of the nostril, and stitch. Dress with collodion. (5) If the alar cartilage is thin and flabby, Menzel advises the injection of paraffin between the skin and cartilage, after packing the vestibule tightly with gauze. If more than the right amount of paraffin be injected the cosmetic effect is seriously impaired. (6) Should deviation or subluxation of the septal cartilage be the cause, it must be corrected by the usual submucous resection. (7) Exostoses of the nasal floor, or thickening of the anterior inferior nasal spine may be removed by an incision at the muco-cutaneous junction; after elevation of the muco-periosteum the projecting part is cut away. (8) A cone-shaped septum membranaceum should be dealt with as follows: A curved incision is made at the junction of the skin and mucous membrane parallel with the edge of the membranous septum. The skin is retracted downwards and the mucous membrane elevated. The thickened parts, such as the subcutaneous and submucous tissues, are carefully cut away with a sharp knife. The operator is now confronted with the excessive width of the skin that is left. To remedy this the needle, threaded with heavy silk, is passed through the skin segment close to the lip, then brought forward over a piece of gauze to the tip and passed through here. Another piece of gauze is placed on the opposite side and the suture firmly tied. In this way the edges of the reduced septum membranaceum are firmly pressed together by a mattress suture. The gauze pads prevent the suture from cutting through the tissues. The stitches are removed in four days. *J. S. Fraser.*

LARYNX.

Diphtheria of the Larynx in Adults.—J. D. Rolleston. "The Clinical Journal," November 1, 1916, p. 389.

After an interesting *resumé* of the historical aspect of laryngeal diphtheria in adults, the author reports four cases, in three of which the membrane extended to the bronchi and lungs and caused death.

Attention is directed to the general view of authors that laryngeal diphtheria in adults extensive enough to cause hoarseness is very uncommon, and that there is a strong tendency for the membrane to spread downwards. Dyspnœa does seem to occur as one would naturally expect, but it does not seem to be so frequent or so urgent as in children. The general symptoms, prostration and asthenia, dominate the situation and lead to a fatal issue in most cases in spite of the use of antitoxin.

The cases described refer only to those in which the disease had produced hoarseness by involvement of the glottis. The author suggests that laryngeal diphtheria is commoner in adults than his numbers would had one to believe, but as routine examination of the larynx with the mirror is not carried out in faucial diphtheria, many cases of infection limited to the lateral bands—what Ruault has called *latent croup*—are probably overlooked.

Some of the points brought out by the older authors are worthy of note; Trousseau's observation, for example, that tracheotomy for "croup" in adults is less successful than in children; and Veillon and Brelet's aphorism that "in the child little diphtheria will produce much croup, while in the adult much diphtheria is needed to cause only a little croup." *Dan McKenzie.*

Malignant Papilloma of the Larynx.—E. Schmiegelow. "Nordisk Tidskrift für Oto-Rhino-Laryng." Bd. 1, Nr. 1, p. 1.

After an allusion to the "absolute" rule never to neglect the microscopic examination of a suspicious laryngeal growth before proceeding to external operation, the author relates a case in which he was misled by the microscopic evidence into the belief that what proved to be a malignant growth was a simple papilloma.

The case was that of a male, aged fifty-two, whose first symptom, hoarseness, appeared two years before his first visit to hospital. When the larynx came to be examined a large greyish-red tumour, with a cauliflower-like surface, was seen involving the right vocal cord. The naked-eye appearance suggested epithelioma, but the microscopic qualities of pieces removed endolaryngeally were those of innocent papilloma. Under suspension laryngoscopy the tumour was removed, but it recurred rapidly and obstructed the air-way so that a low tracheotomy had to be performed. Three weeks later, laryngo-fissure was resorted to and the tumour, which still presented microscopically the characters of simple papilloma, was exposed to the action of X-rays. The tracheotomy tube was removed about this time, but as the growth again recurred it had to be re-inserted some four months later. A month after the whole larynx was found to be filled with papillomata and they had also extended into the pharynx and were impeding deglutition. The author thereupon performed laryngostomy in order that X-rays might be applied more steadily and frequently. Conditions got worse, however, and complete excision of the larynx was performed. Three months later

a recurrence appeared in the deep pharynx, leading to death following an attempt at its removal.

The interesting pathological features of the case are that at no time and in no place did the papillomata show any tendency to penetrate the underlying tissues, nor did they make any attack upon the laryngeal skeleton, while the lymphatic glands, also, were free from enlargement. Microscopically, the appearances throughout were those of a simple but rapidly proliferating papillomata.

In a *resumé* of similar cases reported in the literature, Schmiegelow quotes Bruns as having pointed out that so far a malignant overgrowth of papillomata has only been reported in adults and never in children. And there is a case in Morell Mackenzie's collection which seems to have presented characters similar to those of the above case, although Mackenzie reported "cancerous elements" at the base of the tumours.

As the literature shows, papilloma of the larynx exhibits a great tendency to recur, and Hubbard recently reported a case in which the diagnosis made was adeno-carcinoma, but which seemed, nevertheless, to be a simple papilloma as it was cured by simple endolaryngeal operation.[1]

Finally, the author refers to the remarks made in Semon's collection that the instances which various observers cited in favour of their view that operative intra-laryngeal treatment might transform a simple into a malignant growth, were for the most part cases of malignant papilloma of the larynx.

(The author's suggestion obviously is that papilloma of the larynx has shown on certain rare occasions a proliferative growth of such luxuriance as to warrant the use of the title of "malignant."—D. M.)

In such cases only the most energetic treatment—removal of the larynx—is likely to be of any avail. *Dan McKenzie.*

EAR.

Temporo-sphenoidal Abscess with Unusual Complications.—Leshure, John. "Laryngoscope," 1915, p. 281.

Female, aged fifty-two, suffered from intermittent discharge from the right ear. Examination showed swelling of meatal wall and œdema of adjacent tissues. Just above the zygoma there was a diffuse swelling at a point 1 in. in front of the external meatus. Palpation of this area was very painful, though there was no mastoid tenderness. Temperature, 99° F.; pulse, 78. Next day an incision over the temporal swelling only evacuated a small amount of pus. Three days later the temperature rose to 103° F. The urine was found to contain much albumin and numerous casts. The patient became drowsy, but recovered somewhat for a few days and then again became drowsy and complained of headache. At this period Leshure noted that the right pupil was moderately dilated and reacted sluggishly to light. Ophthalmoscopy showed slight haziness of the disc. The pulse had now dropped to 54 and Cheyne-Stokes respiration was well marked. There was also rhythmical movement of the right arm. A radical mastoid operation was performed, practically without anæsthesia. The antral roof was absent, and the dura was covered with granulations and did not pulsate. The knife entered the abscess cavity at a depth of half an inch, and evacuated two

[1] See JOURN. OF LARYNGOL., RHINOL., AND OTOL., vol. xxx, p. 264.

ounces of thin, non-fœtid, yellow pus. The patient now began to show signs of returning consciousness, so that anæsthesia had to be resumed. Two days later there was severe headache and rigidity of the neck muscles. Lumbar puncture withdrew turbid fluid. The predominating micro-organism was the pneumococcus. During the next two days the temperature rose to 104° F. and the pulse to 160. Death. Permission for autopsy refused. Leshure is of opinion that the first attack of stupor was entirely of uræmic origin. *J. S. Fraser.*

MISCELLANEOUS.

The Responsibility of the Physician in Oral Infections.—Haskin, W. H. The "Laryngoscope," 1915, p. 231.

Haskin urges that surgical measures be employed in all cases where there has been a gum-boil which fails to heal and leaves a fistulous track, however small the opening may be. Such cases are, in reality, cases of suppurative alveolitis which have opened through the external alveolar plate, only after actual destruction of the bone. The alveolus should be freely opened and all carious bone removed, either with or without the extraction of the tooth. Often it will be found that only one root is involved and that this alone need be amputated. Haskin lays stress on the use of the small X-ray film for photographing the individual teeth. He finds it very difficult to awaken any interest among medical men to the great importance of these conditions, but holds that this is not to be wondered at when we consider the entire neglect of any instruction on these lines in our medical colleges. We must realise that almost all the conditions with which we have to deal in our adult patients can be traced back to infancy. At birth there are normally twenty-six tooth germs present in each jaw, and calcification is well under way in the deciduous teeth. Each tooth develops from its crown towards its root, and pushes its way outwards. In normal development the lower teeth should lie just within the upper jaw with the lower molars occluding slightly in front of the upper molars. It will be seen that every effort of nature tends to spread the upper jaw and to push forward the lower jaw at the same time. The alveolar processes can be compared to the muscles in that they need exercise if they are to develop properly. If otherwise, the teeth are slow in developing and are structurally weak, their supporting alveoli being insufficient to place the teeth properly or to hold them securely. Early malocclusion is invariably followed by early loosening of the teeth from the efforts of mastication alone. Normally, stimulation of the alveoli is due to three factors: (1) The pressure of the gum margins against the nipple. (2) The pushing effort made by the tongue, provided that the child is not a mouth breather. When a normal mouth is closed, the person swallows and unconsciously produces a vacuum which causes the tongue to cling to the roof of the mouth and to spread out against the teeth, The lower jaw then drops slightly, being held up by the action of the tongue, which thus tends to pull down the roof of the mouth. (3) The stimulation of teeth and alveoli caused by mastication. Hirdlicka, after studying 960 Indian children, found that there was no abnormal narrowing of the maxillary arch, and that cases of enlarged tonsils and adenoids were not met with; that while Indian mothers nursed their children until the

second and third year, they also gave the children various things to chew very early, *i. e.* solid food. These satisfactory conditions were not due to sleeping in the open air as the Indian children slept in the worst possible ventilation. The human skull, face-bones, and teeth are undergoing evolution largely due to lack of use of the organs of mastication. Loss of the internal secretions in artificial feeding may also be a cause.

At the sixth year, the first of the permanent teeth erupt, and on them falls the burden of developing and holding the jaws in their proper place during the shedding of the deciduous teeth. The tendency to early decay of the first molars can undoubtedly be overcome if the proper stimulation be given to the teeth and jaws in early life by regular exercises, *e. g.* chewing on rubber blocks. Without dental caries it is exceedingly rare to have any inflammation of the dental pulp, and without the latter it is rare to meet with apical abscess. Rosenow, of Minnesota University, has shown that a large percentage of these apical abscesses give pure cultures of the streptococcus viridans—the organism that causes ulcerative endocarditis, gastric ulcer, and rheumatic joint affections.

Pyorrhœa or Rigg's disease is now attributed to the endamœba which is being pursued relentlessly with emetin and ipecac. Haskin holds that no advanced case of pyorrhœa has ever been cured by these drugs, either with or without scaling of the teeth. Whether it is wise to retain such teeth must depend entirely on the extent of the exposed cemental surface. In this condition prevention is the only real cure.

Failure to cleanse properly the teeth results in the accumulation of mucin plaques in which the saliva deposits salts, thus forming tartar. The borders of the gums are irritated and swollen, and gradually recede. This is followed by inflammation of the adjoining alveolar tissues. Here again endamœbæ are believed to cause the destructive process. Closely crowded and irregular teeth are almost impossible to clean. Haskin records many cases to show the evil effects of fixed bridge work.

J. S. Fraser.

THE LATE DR. JULES BROECKAERT.

In addition to the names previously mentioned the following is gratefully acknowledged:

	£	s.	d.
Dr. Dundas Grant.	5	5	0

NOTES AND QUERIES.

Colonel H. S. Birkett, C.B.

It is with great pleasure that we learn that Dr. H. S. Birkett, of Montreal, who has been in charge of a large Canadian hospital in France since shortly after the outbreak of the war, has been awarded the honour of C.B.

Colonel Birkett has been for several years an active member of the Staff of Abstractors for the Journal of Laryngology, Rhinology, and Otology, and we are sure that all our readers will join us in extending to him our heartiest congratulations upon this well-deserved recognition.

We are pleased to be able to report also that Col. Birkett has become a member of the Editorial Committee of the Journal of Laryngology, Rhinology, and Otology.