

impede the air current, by practising nasal respiration perseveringly; cartilaginous and bony projections, on the other hand, are not affected by such simple means, but demand operative procedures. Of these, electrolysis is one of the best and safest in the author's opinion, but objectionable on account of its tediousness.

During the last three years one hundred and fifty operations have been performed under the author's supervision by means of electric saws. The results obtained have been highly satisfactory.

The instruments should be boiled in soda solution. Special disinfection of the field of operation is not necessary, as it cannot be thorough. Not only should the part that is to be operated upon be thoroughly anaesthetized, but the opposite side of the septum should also be painted with cocaine in case of unavoidable perforation.

The instrument should be chosen according to the hardness and size of the deviation. In patients over twenty-five years of age, and in younger persons in whom the projection passes far backwards, the trephine is to be preferred. On the other hand, the undulating saw may be used in all who have still an apparently cartilaginous septum, and in older individuals when the change in shape only involves the anterior part of the septum. When in doubt, choose the trephine, which will carry one through in all cases—the saw sometimes cuts with difficulty or not at all, owing to an unsuspected ossification. The advantage of the saw is that the operation can be completed in one act. Very large deviations, especially when extending far back, and crests and deviations close above the floor of the nose, are best removed with the trephine.

In removing a deviation or crest the saw should describe an arc passing inwards, upwards, and outwards. The operation takes two or three seconds.

The bleeding is usually insignificant, but when troublesome the nose is plugged with gauze. If it continues longer than fifteen minutes after the application of the plug the gauze is removed, the blood cleaned out, and a very small spurting artery is usually discovered. A pledget saturated with ferropyrin is then applied to the spot, and the nasal fossa again plugged with gauze.

The wound takes about four weeks to heal, and somewhat longer if the septum has been perforated.

The objections to the method are the cost of the apparatus and the profuse hæmorrhage that occasionally takes place. The author has only had two cases of erysipelas, and in one of these the patient was to blame.

Contra-indications are: a fresh attack of rhinitis, and suppurating affections of the skin lining the vestibule. *A. B. Kelly.*

Vinci.—*Eucaïne and Cocaine.* Soc. Thérapeutique. "Presse Méd.," March 20, 1897.

THE toxic dose of eucaïne for the rabbit is fifteen to twenty centigrammes; of cocaine, ten to twelve centigrammes. *Ernest Waggott.*

LARYNX.

Colomb, B. A.—*Rupture of Alveolar Abscess into the Larynx; Œdema of the Glottis; Laryngotomy under Difficulties.* "New Orleans Med. Journ.," Mar., 1897.

THE abscess was causing dyspnoea, sufficient to alarm, when it ruptured into the larynx, causing complete cessation of respiration. Crico-laryngotomy was

immediately performed, with a satisfactory result, a large quantity of pus being ejected. The tube was somewhat too quickly removed, and symptoms of œdema came on, which, however, yielded to treatment. The case was attended throughout with only lay assistance.

R. Lake.

Heryng, Th. — *On Papilloma Laryngis and its Treatment by Phenol-Sulphuricinate.* "Therap. Monats.," March, 1897.

THE first part of this paper consists of a very full and clear discussion of the natural history of papilloma of the larynx; the second part deals with treatment. Heryng divides treatment into palliative and operative; the latter into endo-laryngeal operation and laryngo-fissure.

The principal palliative method is tracheotomy. This is regarded by Massei as not only palliative, but also curative; but in Heryng's experience it is palliative only.

The endo-laryngeal methods are five in number, viz. :—(1) Voltolini's sponge method; (2) tearing out or crushing the growth with blunt forceps; (3) operation with cutting instruments; (4) galvano-cautery; (5) chemical caustics.

The third is the only method worth retaining, and may be carried out by means of cutting forceps, sharp spoon, snare, or Störk's guillotine. Cutting forceps, as a rule, are the most convenient and satisfactory instruments to use. The sharp spoon or curette may be used when the growth is on the inferior surface of the vocal cord, and the galvano-caustic snare when the growth is very large, and when any other operation would cause troublesome bleeding.

Thyrotomy is only to be resorted to in exceptional cases of papilloma. When it is done, Heryng recommends the freest possible opening of the larynx (splitting of the hyoid bone, and complete division of the thyroid cartilage). He considers the application of Paquelin's cautery to be harmful. Having finished the operation, he packs the larynx with iodoform gauze; leaves this in for twenty-four to thirty-six hours; removes; and examines the whole interior of the larynx carefully to make sure that not the smallest particle of new growth is left.

Unfortunately, after any operation, however thoroughly and radically performed, papillomata frequently recur. The cautery, instead of preventing, seems rather to promote recurrence. Caustics, such as chromic acid, nitrate of silver, mineral acids, zinc chloride, and salicylic acid, have all disadvantages; even lactic acid is no exception to this rule. Disappointed with these, Heryng tried sulphuricinate of phenol, and found that it had the effect not only of, to an extraordinary degree, preventing recurrence after operation, but also in certain cases of removing the growths without previous operation.

Five cases are cited in illustration of these facts :—

Case I. M. C., aged forty, had been operated on twelve times by various doctors during two years. First seen by Heryng on October 1st, 1894. Papillomata on both vocal cords, left processus vocalis, and both aryepiglottic folds. In several sittings the growths on the vocal cords and vocal process were removed with sharp forceps, and thirty per cent. of phenol rubbed in. The growths on the aryepiglottic folds, simply rubbed with the same solution, disappeared after four applications. Phenol treatment carried on for six weeks. Voice quite clear; remained so till January 7, 1896. Very small growth found at anterior commissure; rubbed three times, disappeared; no recurrence.

Case II. Mrs. H., aged fifty-eight. Hoarseness since 1891 caused by papillomata. Seen by Heryng first in September, 1892; operated on twelve times during next two years; operation always followed by recurrence. At the thirteenth operation all growths on the vocal cords and processus vocalis were removed; parts rubbed with thirty per cent. of phenol; growths on cartilages of Santorini not operated on, simply rubbed with thirty per cent. of phenol. After

fifteen days all growths completely gone. No recurrence up to April 15th, 1896, when patient was last seen.

Case III. G. K., aged seven. Tracheotomy and laryngo-fissure had been performed and papilloma removed. Seen ten days later by Heryng, who found some of the growth still present. Removed this endo-laryngeally; painted with thirty per cent. of phenol. No return, as far as known, but patient was not long under observation.

Case IV. Boy, aged thirteen. Had been hoarse eighteen months. Papilloma found, removed, cauterized, but recurred. In October, 1895, removed by Heryng, and part painted with a thirty per cent. phenol solution. Remained well till January, 1896; then slightly hoarse. Growth, of pin-head size, found; removed; phenol applied once. Patient not seen again till July. Recurrence on same spot, size of a split pea. Without operation, this was simply painted and much reduced in size, but would not quite disappear; therefore operated, and part again painted. Cure. Whether cure will be lasting cannot yet be said.

Case V., communicated by Dr. Srebrny. K. G., aged twelve. Operated on in 1893; again several times in Berlin during 1894; again in January, 1895, and this time painted with twenty per cent. to thirty per cent. of phenol. A very small growth had to be removed in April, 1896. Remained well when last seen in September, 1896.

Papillomata on the aryepiglottic folds and cartilages of Santorini disappear under simple painting; elsewhere they must be first operated on. This is due to the nature of the epithelial covering.

Arthur J. Hutchison.

Koch (Luxembourg).—*Great Fibroma of the Larynx.* ‘Wien. Klin. Rundschau,’ 1897, No. 9.

LARGE tumour, having a pedicle, on the left side of the larynx. Operated upon with the cutting forceps of Siebenmann.

R. Sachs.

Koch (Luxembourg).—*Foreign Bodies in the Larynx, Trachea, and Bronchus.* ‘Wien. Klin. Rundschau,’ 1897, No. 5.

1. A BOY, nine years old, got a large bean in his larynx. The child became dyspnoic. The sixth day tracheotomy was performed. The bean was shot up through the opened trachea by one coughing movement. Cured.

2. A boy six years old, eating some boiled mutton, suddenly became pale and aphonic, without any signs of suffocation. The next day symptoms of acute stenosis of the larynx; tracheotomy. A pointed bone was found on the introitus of the larynx; impossible to extract it from the wound, it was pushed into the mouth, and then taken out with the finger. Recovery.

3. A woman, forty years old, eating boiled beef, suddenly had the feeling of a foreign body in her throat; attack of suffocation passed away quickly. Patient felt well during the next two weeks. Then there appeared symptoms of asphyxia; cough, with sanguinary sputum and foetid respiration. The foreign body was seen in the trachea by the laryngoscope. Only on the eightieth (!) day after the accident tracheotomy was performed; the bone (19, 15, 7 millimètres) was shot up forcibly into the wound. Recovery after twelve days.

4. In a woman, twenty-seven years old, the author could see, after having cut through the ligamentum thyreo-hyoideum, the point of a bent pin in the interior of the larynx, the head being in the œsophagus. The point had perforated the posterior wall of the larynx. In the same way the pin had entered it was extracted. Recovery. It is remarkable that only by the digital exploration the diagnosis of the foreign body was possible.

5. A man suffering from phthisis four days before his death expectorated a

large piece of beef bone. His disease dated from one day that he was found quite drunk in a field; from this time the disease made rapid progress. Certainly it was a pneumonia *ex ingestis*, with following destruction of the pulmonary tissue. The author means that many cases of so-called phthisis may be such examples of foreign bodies without any diagnostic signs during lifetime.

6. A child, aged eight, had a small white bean in the left bronchus. Operation not allowed. Pleuro-pneumonia; death. No *post-mortem*. *R. Sachs.*

Massei.—*The Acute Stenosis of the Larynx of Children and its Treatment.* “Wien. Klin. Rundschau,” 1897, No. 7.

It is very important to know all the different reasons which are enabled to produce very rapidly a stenosis of the larynx of children. The author gives a review of all the different causes of stenosis, and recommends very highly the intubation of the trachea. *R. Sachs.*

Massei.—*Peritracheo-Laryngeal Abscess in Children.* “Rev. Hebdom. de Lar., Otol., et Rhin.,” Feb. 13, 1897.

THE author has been struck by a certain small number of cases, supposed to be croup, in which the introduction of the intubation tube or the performance of tracheotomy has been followed by the escape of a considerable amount of pus. The cases have been characterized clinically by an acute stenosis of the larynx in children between two and seven, accompanied by symptoms and laryngoscopic evidence of paralysis of one vocal cord. The escape of pus which has attracted the author's attention has evidently been the result of the accidental rupture or incision of the walls of an abscess pointing into the lumen of the larynx below the vocal cords. The relief of stenosis has been immediate. In more than one case considerable resistance has been experienced to the introduction of the tube, and after its forcible introduction and the unexpected escape of pus the subglottic space has been found clear. The author is inclined to regard these cases as analogous to idiopathic post-pharyngeal abscess. In the absence of *post-mortem* evidence this opinion must be based on the hypothesis that the condition is due to a purulent adenitis affecting the superior group of the peritracheal chain of lymphatic glands. Abscess in the situation of this group would undoubtedly be capable of compressing the recurrent laryngeal, which runs in immediate relation to it, and so will account for the paralysis observed. Moreover, abscess in this situation would be impossible to detect by palpation of the neck, and the most yielding portion of its surroundings would be on the side of the trachea. The point of least resistance for pus under pressure would, in fact, be about the first ring of the trachea. Although actual anatomical evidence is wanting at present, it seems probable that the pathological hypothesis afforded is sufficient to explain the phenomena. The author desires to draw the attention of the faculty to the condition, the recognition of which must be of the greatest importance from the point of view of prognosis and treatment. *Ernest Wasgett.*

Neumayer, H. (Munich).—*Investigations into the Functions of the Laryngeal Muscles.* “Archiv für Laryngologie und Rhinologie,” Bd. IV., Heft 3.

THIS is a long and elaborate paper, which must be read in the original by those desirous of becoming acquainted with the author's methods and observations. The following are his conclusions:—

1. The cadaveric position of the vocal cords may be greatly modified by rigor mortis.
2. The forms of the glottis produced by rigor mortis in most cases resemble that assumed during phonation. This condition is to be attributed to the action

of the "closers" of the glottis, which surpass the "openers" both in number and bulk.

3. By the author's method, which consists in making use of artificial muscular rigidity for the study of the functions of individual muscles, useful results are obtainable.

4. When one crico-thyroid muscle is paralyzed the cricoid cartilage is rotated within the thyroid, owing to the contraction of the corresponding muscle on the opposite side. In consequence, the summit of the arch of the cricoid is drawn towards the non-paralyzed side, while the plate of the cricoid passes towards the opposite side. In this way the glottis comes to occupy an oblique position.

5. The crico-thyroid muscles by their contraction enable the vocal cords to move towards the middle line of the larynx.

6. The "perverse" narrowing of the glottis observed on deep inspiration is not due to aspiration of the vocal cords by the entering air, but to the contraction of the sterno-thyroid muscles.

7. The vertical portion of the posterior crico-arytenoid muscle is chiefly concerned with the widening of the glottis, while the horizontal portion fixes the arytenoid cartilage posteriorly.

8. The closure of the glottis in the region of the arytenoid is brought about by the cartilage of Santorini and the apex of the arytenoid coming into contact with the corresponding parts of the opposite side. The bases and inner surfaces of the two arytenoids are certainly approximated, but do not meet completely.

A. B. Kelly.

Roger, and Bayeux, Raoul.—*Autopsy of a Case of Varicellous Laryngitis.* "Presse Méd," April 10, 1897.

At the Société Anatomique the case was described of an infant of six months which succumbed to hæmorrhagic varicella. Progressive dyspnoea developed during the last thirty hours of life. *Post-mortem*, the authors found gangrene of the edge of the epiglottis, a strip of slough on the free borders of the vocal cords. A crateriform erosion on the velum portion of the left vocal cord. A varicella spot on the mucous membrane of the left pyriform fossa.

Ernest Waggett.

E A R .

Cotterell, J. M.—*Case of Cerebral Abscess ; Trephining ; Recovery.* "Scottish Med. and Surg. Journ.," April, 1897.

THE patient, a man of twenty-three years of age, was admitted to hospital on January 18th with great pain in the head, of ten days' duration. There was a history of right otorrhœa since the age of eighteen months. The discharge was intermittent, but when it did cease great headache came on, which was relieved by return of the flow of pus. This time no return of the discharge was obtained, though hot fomentations, etc., had been used as before. The pain was referred from the right ear to the posterior part of the right frontal bone. He was dazed, constantly asleep, with cerebation very slow, and moaning at times from the pain. He suffered from anorexia and foetid breath. Temperature, 101·2°; pulse, 72 to 80; respiration, 16 to 18. No tenderness on pressure, and no optic neuritis. The mastoid antrum was first opened, the pulse falling to 60, the temperature to 97·4°, and the respiration to 14; but three days later the pulse fell to 52, the temperature to 97°, and respiration to 12, with return of the pain.