infectious, however; often it gives rise to itself (nine cases occurred in four families), and often to mild sore throat, twenty-five instances of which occurred in eleven families. The Klebs-Löffler bacillus was also found in healthy throats in association with these cases. A comparative investigation showing the frequency with which the bacilli were found in healthy noses is then described, and statistics of similar investigations on both healthy noses and throats and on cases of non-diphtheritic sore throat are quoted.

The conclusion is arrived at that fibrinous rhinitis is a mild variety of diphtheria, the difference in the clinical manifestations apparently depending on some differences in the organisms associated with the Klebs-Löffler bacillus. The diagnostic value of the presence of the bacillus in sore throats which do not clinically appear to be diphtheria is also discussed, and is considered to be very slight.

Meyjes, Posthumus (Amsterdam).—(1) *A Case of Inverted Tooth in the Nasal Cavity.*

(2) *A Case of Probable Pneumatocele of the Frontal Sinus.* "Monatschrift für Ohrenheilkunde," October, 1898.

See Report of Laryngological and Otological Society of the Netherlands in January number. *William Lamb.*

LARYNX.

Betti, Ugo Arturo (Genoa).—*The Relations of the Larynx with the Vertebral Column in Man.* "Bollettino," Florence, January, 1899.

The author reviews the statements of various anatomists on this point. Luschka and Hoffman make the larynx correspond with the fourth or fifth cervical vertebra. Symington, from the middle of the body of the fourth to the upper margin of the sixth. Krause, without fixing the level, says it is lower in men than in women. Drobnik, that the lower limit of the larynx is generally at the level of the body of the sixth vertebra. Quain, that the thyroid cartilage corresponds with the fifth cervical vertebra, the cricoid with the sixth. Tagucki (from sixty dissections), that it extends exactly from the upper border of the fifth to the lower border of the seventh vertebra in the male, and that it is a little higher in the female, *i.e.*, between the upper margin of the third intervertebral disc, and that of the body of the seventh vertebra.

Dr. Arturo gives tabular details of his dissections of 100 bodies in which the larynges had been fixed by the insertion of needles, and draws the following conclusions:

The level of the thyroid notch corresponds most frequently with the body of the fourth cervical vertebra, often with that of the fifth and the third intervertebral disc, rarely with the body of the third vertebra or the second or fourth disc.

The level of the crico-thyroid space is most often at that of the seventh vertebra, often at the sixth disc, sometimes at the body of the eighth and seventh, rarely at the fifth disc. These levels are higher in the female and in long necks.

The differences in level of the individual parts of the larynx do not allow any conclusions to be drawn as to its symmetry, or from the

dimensions of the organ, owing to the variability of its position with regard to the vertebral column.

The upper and lower limits of the larynx vary with its relation to the vertebral column, so that as the upper limit is high placed or low, so is the lower.

Position of the Tracheal Rings in the Neck.—The tracheal rings which correspond with the upper margin of the sternum are most often the seventh, ninth, and tenth, often the eighth, rarely the twelfth, very rarely the fifth, sixth, eleventh, thirteenth, and fourteenth, most rarely the fourth. *James Donelan.*

Campbell, D. A.—*Timothy-head in Lungs for Five Years.* "Maratine Medical News," January, 1899.

A similar case of a head of timothy entering the larynx to that given on page 268. A young man, while walking through a hay-field, amused himself by biting off the heads of the stalks. One of these slipped into his larynx. He was not affected much immediately, but hæmorrhages developed, occurring off and on for five years. Finally the head was brought up almost unchanged. *Price-Brown.*

Clark.—*Œdema of the Larynx.* "The Laryngoscope," February, 1899.

The author refers to the rarity of acute œdema of the larynx, gives in a tabular form Morell Mackenzie's classification of œdema laryngis, and defines contiguous, consecutive, and secondary œdematous laryngitis. He then describes a case of contiguous œdematous laryngitis. A man, aged fifty-five, a barber, after a drive on a cold day, developed pneumonia, which lasted three or four weeks, and since then had suffered from mitral regurgitation. Forty-eight hours before coming under observation his throat became very sore after sleeping in a draught. He had been suffering immediately before from acute sore throat, which, however, had almost subsided. When seen he had marked cyanosis and dyspnœa, etc. Temperature was normal.

The fauces and uvula were found to be intensely inflamed and œdematous. The entire glosso-epiglottic space was filled by one œdematous bleb, greatly interfering with the elevation of the epiglottis. The entire upper surface of the epiglottis and the ary-epiglottic folds were œdematous. The loose connective tissue of the submaxillary space was so infiltrated as to give a double-chin appearance.

The parts were sprayed with a warm pyrozone solution; each bleb was incised, and then the parts sprayed with a 10-grain solution of sulphate of zinc as warm as could be comfortably tolerated. Gargling with hot water and the use of throat tablets were continued. The next day his condition was improved, but the glosso-epiglottic bleb required incision. The day after no œdema could be seen, and rapid recovery followed. Possibly this was a case of secondary œdema due to deficient circulation. *R. M. Fenn.*

Hamilton, H. D.—*Voice from a Medical Standpoint.* "Montreal Medical Journal," March, 1899.

The writer draws attention to the accessory parts of the body concerned in voice production, such as the thorax, lungs, resonance chambers of the nose, etc., wisely insisting that, to obtain a perfectly musical voice, the various organs of the body should be in a condition of perfect health. Faulty methods of vocalization and overstrain of the voice are to be avoided. *Price-Brown.*

Mills Wesley, speaking upon the same subject, and in the same journal, suggests that, like the face, the voice might also be an indicator of disease. Those who sing should be warned against using the voice during the change of life. Singers in societies often strain the parts, producing congestions and exhaustion of the nervous system, from attempting a range beyond their power. Speaking of the frequency of voice troubles among preachers, and their rarity among actors, he attributes the former to the high-pressure, worry, and irregularity of the preacher's work, and the latter to the regularity of the use of the voice, and control of it by the principles of common-sense.

Price-Brown.

Scheier.—*Tracheal Stenosis.* "Deutsche Praxis," March 15, 1899.

Scheier describes the symptoms of tracheal stenosis as follows ("Drasche's Bibl. Mediz. Wissensch."). The symptoms are referable partly to the stricture of the trachea, and partly to the primary disease occasioning it. The respiratory difficulty is the most important of the subjective symptoms, and its intensity is always in relation to the degree of the contraction. If the latter is only slight, the breath troubles only appear on great bodily exertion, such as ascending stairs. Dangerous attacks of suffocation only come on in very bad cases, but the stenosis may be tolerably severe without occasioning much breath trouble. In many cases the symptoms of stenosis set in acutely without giving warning either to patient or physician; in others slight difficulty in breathing has already existed, and gradually increases to a dangerous degree. Congestion of the mucosa from intercurrent catarrh naturally causes an increase in the dyspnœa. Death has taken place from suffocation occurring suddenly during sleep. Krönlein is of opinion that these acute attacks of suffocation are not due to disturbance of the innervation of the muscles of the larynx referable to the thyroid gland, but rather to the direct pressure of the thyroid against the yielding trachea. This sudden increase of pressure on the part of the thyroid is attributable not only to sudden enlargement of the gland from hæmorrhage taking place in it, but also to forced efforts of breathing due to accumulations of mucus in the larynx, etc., to which sufferers from goître, with obvious hypertrophy of the sterno-hyoid and thyroid muscles, are liable. These muscles press the enlarged thyroid, over which they lie, tightly against the trachea, obliterating its lumen. The dyspnœa is always associated with both inspiration and expiration. The former is, however, most interfered with; it is prolonged and accompanied by a whistling sound, especially when the case is one of stenosis from thyroid enlargement. Palpation with the tips of the fingers detects a thrill on the narrowed spot, especially if the latter is rather high up in the trachea. Gerhardt has remarked that in tracheal stenosis very little movement of the larynx upwards and downwards is noticeable during breathing, whereas, when the stenosis is in the larynx itself, the excursions are very obvious, excepting in cases of bronchoceles closely adherent to the trachea. Moreover, whilst in most cases of stenosis of the larynx the head is thrown back, in tracheal strictures the patient protrudes the head and depresses the chin. In tracheal cases, also, auscultation detects stridor between the shoulder-blades, over the spinous processes of the upper dorsal vertebræ, whilst in laryngeal stenosis the abnormal sounds are best heard over the middle cervical vertebræ. In very high degrees of stricture the vesicular murmur is quite obscured by the whistling accompaniments.

The voice remains unchanged so long as the larynx itself is unaffected, except that it acquires a peculiar dulness or feeblneess. When the stenosis is caused by pressure on the trachea from without, there is usually recurrent paralysis of the vocal cords. The nature and degree of the obstruction can be definitely settled by the aid of the laryngeal mirror, a very small one being inserted into the wound if tracheotomy has been performed. The tolerance of the trachea to the introduction of a foreign object is well exemplified by a case of Moritz Schmidt's, the patient singing vigorously for nineteen months after swallowing a bone, which became fixed about the middle of the trachea in the antero-posterior direction. At each point of contact exuberant granulations sprang up, and it was these that eventually created an obstruction. Nevertheless, the danger attending the impaction of a foreign body is so great that an operation should always be undertaken at once without waiting for an examination. *Pegler.*

Schrötter, Hermann (Vienna).—*Laryngological Cases.* "Monatschrift für Ohrenheilkunde," October, 1898.

(1) *Scleroma* (the first case reported from Styria).—A woman of twenty-nine showed slight subcordal swellings, but the rest of the larynx was free. In the trachea, about the level of the fifth ring, was a yellowish, waxy-looking, button-shaped swelling, resting on a red and swollen base. Close by was a scar. The tracheal swelling was removed, and vulcanite dilators introduced. Apparent cure resulted, but after some months the larynx became infiltrated, and the mobility of the cords interfered with.

Schrötter tried unsuccessfully to communicate scleroma to a monkey by submucous injections of pure cultures of the bacillus, and by implanting pieces of diseased tissue in his own arm.

(2) *Tuberculoma* (several cases).—(*a*) A smooth, flap-like enlargement of false cord as big as a bean. (*b*) A red swelling the size of a pea, with yellow spots on its surface, just below the anterior commissure.

(3) *Chronic Œdema of the Larynx* (two cases).—(*a*) Affecting especially the right half of the entrance to the larynx. Microscopic examination proved the swelling to be tubercular. (*b*) A somewhat similar case, due to a melano-sarcoma of the cheek and soft palate.

(4) *Two Cases of extensive Tuberculosis of the Soft Palate and Pharynx*, without any affection of the larynx, but with extensive disease of the lungs. This seems to indicate a local tissue-predisposition.

(5) *Possible Infection of Foot and Mouth Disease.*—A butcher was seized with fever, albuminuria, and gangrenous stomatitis, quickly followed by gangrene of one of the vocal cords and perichondritis, necessitating tracheotomy. Finally the case healed, leaving chronic stenosis of the larynx. Bacteriological examination was negative, but the case presented all the features of an acute infection, and the gangrenous corditis seemed to be primary.

(6) *Cases of Pemphigus of the Throat.*—Intense patchy redness and severe burning pain may enable one to diagnose this before the eruption comes out. In erythema multiforme of the mucous membranes the pain is very much less than in pemphigus.

(7) *In an old Case of Paralysis of the Recurrent Laryngeal* the patient came complaining of dyspnœa. A broad-based swelling was seen springing from the aryteno-epiglottic fold of the paralyzed side and bulging into the entrance of the larynx, covering the posterior

two-thirds of the cords. The swelling was composed of the arytenoid, and especially of the cartilage of Santorini, covered with hypertrophic mucous membrane, and prolapsed as it were into the entrance of the larynx. It was removed with the hot snare, and the diagnosis confirmed.

(8) *Probable Gumma of the Trachea.*—A woman of fifty-eight, who had just recovered from pleurisy, followed by an abscess above the clavicle, came under observation, suffering from ever-increasing dyspnœa and copious purulent spit. No explanation could be found till Professor Schrötter observed deep down in the trachea a firm-looking, irregular swelling springing from the posterior wall and projecting into the lumen to such an extent as to leave only a narrow chink between it and the anterior wall. Suffocation appeared to be imminent; the patient would submit to no operation (tracheotomy and dilatation), but just when death seemed inevitable, gradual improvement took place, and the swelling subsided, leaving a puckered scar on the mucous membrane. The patient was dismissed cured. Two grammes of iodide of sodium were given daily.

(9) *Amyloid Tumour of the Larynx* in a healthy woman of fifty-seven. The region of the arytenoid cartilage and part of the aryepiglottic fold was occupied by a golden-yellow swelling of firm consistence and slightly uneven surface. This was removed, and was found to contain masses of amyloid matter giving the characteristic reaction with iodine. In the deeper parts the membrana propria of the mucous glands was especially affected, and one could see greatly thickened arteries. The change apparently proceeded from periphery to centre, but whether the tissues involved were those of a neoplasm or physiological tissues there is no evidence to prove. Only six cases have been recorded.

(10) *A Case of Air-tumours in the Larynx, caused by the Ventricles of Morgagni being inflated by the Expiratory Air-stream. Aerocele Ventricularis Interna of Virchow.*—There is probably a congenital abnormality in the conformation of the parts, or at least conditions favourable to the production of such abnormality, for the boy's voice is said to have had its peculiar hollow-sounding quality since he had scarlet fever at eight years old. During inspiration the swellings collapse. Considerable pieces of the false cords have been removed with various instruments, and one side of the larynx is practically clear. The case has been extremely troublesome, and the voice remains as yet unimproved. This is due to the fact that a flap-like piece of tissue covers the anterior part of the left vocal cord, and is liable to be sucked into the glottis during inspiration, thus preventing the proper approximation of the cords.

Smith, M. A. B.—*Foreign Body in the Lung for Eight Years.* "Maratine Medical News," January, 1899.

This was the case of a young man who accidentally drew the head of a piece of timothy into his larynx, producing symptoms resembling those of tuberculosis, which lasted for eight years. At the time of the accident severe coughing and expectoration of blood occurred.

After this, occasionally, for years he had similar attacks, during which particles of timothy would be expectorated. On two occasions he spat up each time nearly a quart of blood.

Eight years after the accident, a number of minute bits of timothy were spat off while the doctor was present. These were examined under the microscope, and were found to be almost identical with those

from a fresh timothy head. Subsequently the patient materially improved in health. *Price-Brown.*

Worrall, C. H. — *Membranous Laryngitis with Hyperpyrexia from Malarial Poison.* "Lancet," October 29, 1898.

This is described as a case of "simple membranous" laryngitis in contradistinction to diphtheritic laryngitis. There was, however, no bacteriological examination of the membrane, and there is not sufficient record of the absence or presence of other symptoms to help in settling the diagnosis. About twenty-four hours after relief had been obtained by a tracheotomy, the temperature ran up to 108·9°, the child became unconscious, and died in a few hours. There was no post-mortem.
StClair Thomson.

ŒSOPHAGUS, Etc.

Wishart, Gibb.—*Peach-stone in Œsophagus; Perforation; Death.* "Canad. Lancet," October, 1898.

A woman, aged seventy-six, swallowed a peach-stone, which lodged in the upper part of the œsophagus, producing pain in the left side of the neck, and inability to swallow. One week later, by passing a probang, the obstruction was located 7 inches from the teeth. All attempts at removal through the mouth being ineffectual, an incision was made parallel with the anterior border of the left sterno-mastoid muscle. In separating between the carotid sheath and the tracheal coverings, a quantity of foul-smelling pus gushed out. The stone was discovered in the same line, outside the trachea. It was readily removed. The patient was fed by nutrient enemata, but gradually failed, dying on the seventh day after operation. *Price-Brown.*

Finlay, F. G., and Anderson, D. P.—*Carcinoma of the Œsophagus with Fatal Hæmorrhage from the Subclavian Artery.* "Montreal Medical Journal," February, 1899.

This occurred in a man aged sixty, addicted to chronic alcoholism. For some time previously swallowing had been difficult. There had also been extreme hoarseness. The larynx was examined by H. S. Birkett, who found complete paralysis of the left vocal cord and deficient adduction of the right. No. 8 œsophageal sound was arrested 13½ inches from the teeth, but No. 7 was passed into the stomach.

Four months later a No. 3 sound was arrested 8 inches from the mouth.

As the symptoms became more severe, there was marked rise in temperature, dull pain over the sternum, cough with scanty and fœtid expectoration, rigors, etc. Emaciation became extreme. Finally a slight attack of coughing was followed immediately by profuse hæmorrhage and death.

The post-mortem revealed cancer of the œsophagus above the bifurcation of the trachea. There was gangrene of the left lung. Perforation of the second portion of the subclavian artery had occurred, from the œsophageal ulceration, 2½ inches from its origin. *Price-Brown.*

StClair Thomson. — *Functional Dysphagia.* "Lancet," December 3, 1898.

After sketching the physiology of deglutition, the two forms under which functional dysphagia may appear are described, viz., a paralytic