who places the limbs between his own, fixes the head with the right hand, and holds the hands with the left. The drug should be administered on a flannel mask. Five grammes of freshly-prepared bromide of ethyl are necessary for a child from three to eight, and five to ten grammes for children up to fifteen years of age. This dose ought not to be surpassed. This method is also characterized by an absence of the transition stage of coming out of the anæsthesia. As soon as the operation is over the child can expectorate himself without having to be told. and there are no after-symptoms. Lermoyez has pointed out that the time to cease the inhalation is when the pupils commence to dilate and the conjunctivæ are slightly injected. It is quite innocuous, and is suitable up to sixteen years of age; after which it is not a good anæsthetic, sleep being very difficult to obtain, and accompanied with a phase of excitation which often lasts for hours. It is only suitable for short operations, lasting thirty to sixty minutes, such as adenoids or large tonsils, aural polypi, and paracentesis of the tympanum. The cases in which it is absolutely contra-indicated are tubercular and congestive affections of the lungs, congenital and valvular affections of the heart, renal subjects, and to a less degree certain nervous conditions, taciturn subjects, depression, and children having fear of operation. Beyond these there is absolutely no contra-indication.

R. Norris Wolfenden.

## LARYNX.

Billot.—Analysis of Cases in which Tracheotomy Canulas have fallen into the Air Passages. "Ann. des Mal. de l'Oreille," March, 1896.

The author has collected nineteen cases which have occurred during twenty-six years, only one being in France, the others Russian, English, and American, which he explains by the assumption that the canulas in France are of more solid metal and more careful construction than elsewhere. A broken canula appears to fall generally into the right bronchus, like other foreign bodies. (Seven times in the right as against four in the left in the author's statistics.) The bronchi and trachea seem to have retained without excessive reaction tracheotomy canulas for times varying between one day and three years and three months. In cases of prolonged sojourn of the canula in the bronchi it is necessary in order to obtain free respiration that the canula should lie in the bronchus in a manner so as not to obstruct it, which seems to be the ordinary condition, and that there should be no other obstacle—small tracheal opening, vegetations, etc., which double the danger. If attempts at immediate extraction do not succeed, it is a capital point for the surgeon to examine how the patient breathes. If freely, he may temporize; if with difficulty, the tracheal opening should be enlarged and dilated, the simplest method being to introduce immediately a new and large canula.

In Razumowski's case the patient lived for three years with a canula in the bronchus and another in the neck. The author lost one case, which he attributes to the neglect of putting in a new canula. He does not agree with Sands' suggestion to seek the foreign body with the finger. A small probe, forceps, or metallic thread will give all the information possible. As to the choice of instruments, forceps and metal loops have given good results. A surgeon should have various different models at hand. He does not regard the suggestion of bronchotomy with favour, the canulas not descending lower than the first bronchial division, and it is also quite rare that attempts at extraction with forceps and wire loops have not eventually succeeded.

\*\*R. Norris Wolfenden\*\*

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Erselberg (Königsberg-in-Pr.).—Resection and Suture of the Trachea. "Deutsche Med. Woch.," No. 22, 1896.

The patient, aged thirty-six, had cut his throat in an attempt at suicide nine months before; the trachea, which was divided, was united by sutures; these sutures had to be removed and a tracheotomy tube inserted on account of attacks of dyspnœa. It was found by the author that the tube could not be removed without inducing severe attacks of dyspnœa. The cause of this proved to be an obliteration of the lumen of the tube. The obliterated portion was resected, two centimètres of the trachea being removed, and the cut ends united by suture; the canula was removed four days later, and within a short time the patient quitted the hospital breathing and phonating normally. The author, whilst recommending resection, does not consider that the necessity for it should occur if proper primary or immediate treatment is adopted.

Michael.

Hamilton, T. K. (Adelaide).—Removal of a Foreign Body from the Bronchus. "Australasian Med. Gazette," April 20, 1896.

A CHILD, aged about five years, commencing to cry while she had a bean (one of the seeds from the cone of the stone-pine) in her mouth, drew it down into the larynx. She was seen by a doctor almost immediately afterwards, but he could find nothing in the throat. If she cried the breathing became stridulous with much dyspnœa, and air did not enter the right lung at all freely.

When seen by the author two days later she was restless, there were occasional paroxysms of cough, the breathing was regular, and there was no stridor. A laryngoscopic examination under an anæsthetic failed to reveal anything of importance. On examining the chest, there was found to be complete absence of breath sounds over the right lung. Two days later, a low tracheotomy was performed, and a suture inserted in each side of the incision, through the trachea, to make the wound gape and keep it open. The child was then inverted, and the foreign body was coughed out through the opening. A rapid and uninterrupted recovery was afterwards made.

A. B. Kelly.

Heryng, Theodor (Warsaw).—On Sulpho-Ricinate of Phenol, and its use in Tubercular and Chronic Diseases of Pharynx, Larynx, and Nose. "Therapeut. Monats.," Mar. and May, 1896.

In the first of these papers Dr. Heryng gives a detailed account of the history of the discovery of sulpho-ricinic acid, one of the solvins; of the method of its preparation, of its properties, and of its introduction by Ruault into the realm of therapeutics. This is largely taken from Ruault's book, "Le Phénol Sulforiciné dans la Tuberculose Laryngée." The second paper is devoted to the use of the drug in tuberculosis of the upper air passages, specially of the larynx. And a third paper is promised which is to deal with the application of the drug to chronic diseases of the upper air passages, viz., chronic hypertrophic coryza, rhinoscleroma, papilloma of the larynx, and syphilitic affections of the pharynx.

First Paper.—According to Kobert the "solvins," among which sulphoricinic acid is classed, are the products of the action of concentrated sulphuric acid on triglycerides of the fatty acids or on the fatty acids themselves. There must therefore be a solvin corresponding to every oil, fat, and fatty acid. According to Benedict and Ulzer, concentrated sulphuric acid acting, in ice-cooled vessels, on fats produces the acid sulphuric ether corresponding to the fatty acid acted on, and the solvins are their neutral salts (mostly of ammonia). The solvins are thick, syrupy, bright yellow to brown fluids, decomposed at 95° to 110° C., and forming a vaseline-like mass at 0° C.

The most striking property of the solvins is their power of dissolving, or at least emulsifying, very many substances that are quite insoluble in water; for example, sulpho-ricinic acid dissolves forty to fifty per cent. phenol, ten per cent.  $\beta$  naphthol, fifteen per cent. salol or salicylic acid, etc., etc., and the solutions do not alter even after long standing. The phenol-sulpho-ricinate (for therapeutic use) must be quite clear, without the least turbidity, and must remain so at a temperature of 15°C. All preparations that are not quite transparent, dark brown, or that form a precipitate, must be thrown out as impure. They contain water, and, therefore, cause pain when applied to the mucous membrane. According to Müller-Jacobs, solvins penetrate animal and vegetable membranes with great ease; but Kobert and Kiwult have shown that that is true only of dead membranes.

To describe the method of preparation of sulpho-ricinic acid would be out of place here; the reader is, therefore, referred to the original article, or to Berlioz—"De l'Acide Sulfo-Ricinique," etc. ("Archiv. de Laryng." 1889, p. 6).

Experiments on animals show, says Ruault, that sulpho-ricinic acid dare not be used internally or subcutaneously. On the other hand, it may be fearlessly applied to the mucous membrane of the nose, throat, and larynx.

Experiments on rabbits and guinea-pigs, introducing sulpho-ricinic acid into stomach, into pleural and peritoneal cavities, into subcutaneous tissue, and into crural vein, demonstrated the poisonous action of the drug. The animals rapidly died in convulsions. Microscopic examination showed destruction of the red blood corpuscles. The coefficient of toxicity was estimated by Berlioz at two hundred and twenty-seven milligrammes to one kilogramme weight of animal.

A forty per cent. phenol-sulpho-ricinate has no caustic action on the mucous membranes. It causes a slight burning sensation on the tongue and pharynx; indeed some people say it is painful, and this sensation may last, in very sensitive patients, for hours. This is more particularly the case when the part touched is the posterior wall of the larynx, that being the most moist part of the larynx; it must also be remembered that, normally, the pars arytenoidea is the most sensitive part of the larynx. Pharynx and tonsils react but slightly on painting with the phenol solution, and even in the nose a thirty per cent. solution causes only slight pain. It should be borne in mind, however, that there are exceptions, and, therefore, that it is wise to begin with a ten or twenty per cent. preparation, and in tuberculous patients even to use cocaine before the first application of the phenol.

Heryng has no unpleasant (toxic) effects to report. As to the unpleasant taste, while some recommend the addition of menthol and saccharin, others prefer to use the drug pure, letting the patients gradually get accustomed to it.

Second Paper.—This paper commences with a warning to all who may have to undertake local treatment of laryngeal conditions that not only skill, but great patience and the power of gaining the patient's confidence, are required. Further, that general as well as local treatment must be conscientiously carried out. Then the method of preparing cotton-wool laryngeal swabs of different shapes to suit different parts of the larynx are described, and the dangers of unskilled working in the larynx emphasized.

Phenol-sulpho-ricinate painted on to the mucous membrane of the mouth an d pharynx produces a slight reddening. In the larynx this is more marked, but is only of short duration, and is soon followed by paleness of the surface. Where the mucosa is already hyperæmic the reaction is naturally more marked and lasts longer (according to Ruault, even twenty-four to forty-eight hours). Hence the rule—the stronger the reaction after painting with phenol (or, in the same way, the greater the pain) the less frequent must be the applications. Thus, some patients

can stand the application twice daily; others not more than twice weekly; while there are a few who cannot stand it at all. After being painted the mucosa takes on a whitish colour, which generally lasts about twenty-four hours. The sputa expectorated immediately after an application are tough, creamy, opaque, and white.

Ruault's directions for the use of phenol-sulpho-ricinate are as follows:—For tubercular erosion of the vocal cords and posterior laryngeal wall, gentle painting twice a week, or in more tolerant cases every second day, is sufficient. For the initial stage of circumscript tubercular infiltration of the epiglottis or vocal cords, first scarify freely; then, after bleeding has stopped, rub in the phenol with some force. If the infiltration is accompanied by ulceration and granulations, the latter are first to be removed with the curette. For the diffuse infiltrated form combined with ulceration, energetic rubbing with phenol is contra-indicated. Gentle painting is sufficient, or, if that has no effect, surgical treatment is called for. Tuberculosis of the epiglottis in its initial stage stands pretty energetic treatment with phenol. In widespread, rapidly breaking down deep ulcers, and only in this condition, Ruault finds an indication for surgical treatment of the epiglottis; but on this point Heryng differs from him.

The sclerotic, hyperplastic, and pachydermic forms must first undergo surgical treatment. Lastly, in miliary tuberculosis the prognosis is so hopeless that any treatment that increases pain or irritates the tissues must be completely laid aside.

Results.—Superficial tubercular ulcers, which are usually covered with greyish white matter, rapidly become clean, their edges fill out, and little red granulations sprout up all over. The purulent secretion becomes more mucous, less in quantity, and gradually disappears. Deep inflammatory ulcers with irregular edges become rapidly pale, and the swelling and granulations disappear in an astonishingly short time. Infiltrations and papillomatous growths rapidly diminish. Infiltrations and ulcerations of the ventricular bands often withstand all treatment, because they are part of the same affections of the ventricles. Here surgical treatment must prepare the way for treatment by phenol.

A peculiarity of the phenol treatment is that no cicatrices are to be seen on the surfaces after healing.

The so-called catarrhal form of laryngeal tuberculosis is the most rapidly healed (Ruault); next come circumscript periglottic infiltrations or ulcerations. The prognosis is distinctly worse whenever the epiglottis or the crico-arytenoid articulation is affected. A good prognosis may be given in cases of tubercular tumours, hypertrophic or papillomatous growths that have first been treated surgically. Other points affecting prognosis are heredity, constitution, age of patient, social position, and the condition of the alimentary tract. Treatment in hospital seems to Heryng unsatisfactory.

Of the mode of action Heryng offers no definite explanation.

This paper ends with an emphatic statement of the advantage, or rather necessity, of using only the Paris preparation of phenol-sulpho-ricinate, as in Heryng's experience other preparations had little therapeutic effect and caused severe pain.

A third paper, giving a more detailed account of Heryng's personal experiences with this drug in laryngeal tuberculosis, and its application to certain chronic diseases (vide supra), is to follow.

Arthur J. Hutchison.

Krebs, G. (Hildesheim). — The Treatment of Chronic Catarrh of the Pharynx and Larynx. "Therapeutische Monatshefte," June, 1896.

Great advances have recently been made in the treatment of these diseases, so that now, instead of being considered incurable, as was the case not long ago.

"the great majority can be cured." Each case must be treated on its own merits, the underlying cause or causes sought out, the stage the disease has reached and the anatomical changes it has produced carefully considered—the treatment varying accordingly. For example, in chlorotic patients with pharyngeal catarrh, treat first the chlorosis, omitting all local treatment till it is clear that the curing of the chlorosis has not also cured the throat condition. The same rule applies to primary scrofulous catarrh, except that in these cases the disease is seldom a catarrh of the pharynx and larynx, but rather a scrofulous rhinitis, or is due to the presence of adenoid vegetations. Again, patients with hæmorrhoids or plethora abdominals (Rhüle) often suffer from chronic throat catarrhs. They must be treated at Karlsbad, Marienbad, Kissingen, etc., etc., before any local treatment is tried. Syphilitic catarrh of the throat does not exist, though syphilis of the throat (gummatous infiltrations) certainly does. In a syphilitic patient catarrh of the throat is a chance complication, but is a simple catarrh, although most textbooks still describe syphilitic catarrh of the throat. The same remark applies to the pharyngitis sicca et albuminuria of diabetics and sufferers from Bright's disease. The dryness of the pharynx is not an isolated local condition, but is merely the result of the general want of water throughout the system. The author by no means wishes to deny that a true catarrh may occur in diabetes or Bright's disease. When it does occur it must be treated.

A second and more important (because more common) group of causes of chronic pharyngeal and laryngeal catarrh is constantly repeated mechanical and chemical irritation, the chief factors being alcohol, tobacco, and dust. Patients may be allowed moderate quantities of beer and light wines; one or two cigars a day. Cigarettes and chewing to be strictly forbidden. To prevent inhalation of dust, teach the patient to breathe through the nose, because scarcely anyone will take the trouble to wear a respirator constantly. Further, let them live as much in fresh air, especially forest-air, as possible.

The troubles arising from over-strain of the muscles, etc., of the throat are well known. Moderation in the use of the voice must be advised, correct methods of voice production taught, and the bad habit of coughing and hawking put down.

Of all etiological factors of chronic throat catarrhs the most important is disease of the nose. About fifty per cent. of these cases should be treated through the nose. The nose disease affects the throat in three ways:—

- I. Stoppage of the nose removes the natural filter and moistener of air.
- 2. Secretions from the nose and its accessory cavities, when copious, flow naturally into the pharynx. When smaller in quantity they are drawn into the pharynx and partly swallowed, but partly they remain adhering to the pharyngeal and laryngeal walls. This, in the author's opinion, accounts for laryngitis and pharyngitis sicca vel atrophica and muco-purulenta, and at the same time indicates the correct treatment of these diseases. The same is true of naso-pharyngeal catarrh.
- 3. Direct mechanical disturbances are produced when the posterior parts of the nose are diseased.

Lastly, diseases of the lungs, etc., may also produce throat catarrhs. Thus, in three hundred and ten lung patients Schäffer found the larynx affected in three hundred and two.

Internal medication of idiopathic throat catarrh is of little use. Various spas are recommended by different doctors. Alkaline and alkaline-chloride springs, such as Ems, Vichy, etc., are the most generally recommended. Schmidt prefers the cold waters of Kissingen, Homburg, etc. All these waters, or pastilles prepared from them, lessen the tough mucus in the throat and so lessen the irritation. Again, sulphur waters are recommended, such as Weilbach or Neundorf;

whilst high-lying forest lands, Alpine valleys, and sea air all have their uses and advantages. For dryness Jurasz recommends iodide of potassium, and, when paræsthesia is marked, bromides, valerian, arsenic, and the like are indicated.

The author then insists that far too little attention is paid to the psychical element in throat cases, and, consequently, in their treatment. That man will be most successful in treating chronic throat cases who, while employing correct treatment, can gain his patient's confidence in himself and his methods—who, in short, employs intentionally or unintentionally a certain amount of "suggestion."

(To be continued.)

Arthur J. Hutchison.

Manley, T. H. (New York).—Cancer of the Larynx. "Medical Times and Register," May 9, 1896.

REFERRING to a case of laryngeal ulceration, supposed to be malignant, where the larynx and three rings of the trachea had been removed, the patient dying three hours afterwards, the author sums up against such operative procedure in these cases, believing that it is generally fatal, gives little relief, and no certainty of eradicating the disease. On the other hand, he points out the great success of the operation of tracheotomy in relieving pain and prolonging life, which, combined with palliative treatment, he considers the only rational procedure.

StGeorge Reid.

## EAR.

Bezold, F. (Munich).—The Hearing Power in Cases of Bilateral Atresia of the Auditory Canal with Rudimentary Auricle. "Arch. of Otol.," Vol. XXV., No. 2.

In two cases examined by the writer there was diminished air conduction for low tones, marked "negative" Rinné, and increase of bone conduction for all forks. These results coincide with those obtained by others, and from the point of view of functional testing localize the defect as in the conducting apparatus, and more suggestive of anchylosis of the stapes than of simple meatal obstruction. This is confirmed by the results of thirteen autopsies collated by Joel and three by Ranke.

Bonnier.—Variation of the Patellar Reflex in Certain Labyrinthine Affections. "Semaine Med.," No. 3, Jan., 1896.

The author notes an augmentation of the knee reflex in a large number of patients affected with marked labyrinthine insufficiency. He has seen diminution and even suppression in cases of auricular inflammation. The mode of appearance of these reflexes suggests that this direct action is in reality only the marked variation of an interference of a dynamogenic character.

\*\*Lacoarret\* (Waggett).\*\*

Burnett, C. A. (Philadelphia).—Chronic Tympanic Vertigo. "Philadelphia," May 2, 1896.

THE author believes that paroxysmal chronic tympanic vertigo is a late symptom of chronic catarrhal middle ear disease, being preceded by tinnitus and increasing deafness, and accompanied by failing health, leading to the true cause of the disease often being overlooked, and, when diagnosed, to be mistaken for internal ear rather than middle ear mischief. He reminds us of the symptoms present in epilepsy and cerebellar disease, not found in this; he points out that the chronic catarrh of the tympanum leads to a sclerotic change in the mucous membrane,