the warm breath, saturated with moist vapour, forms a deposit on the glass, producing a "pneumatype" (breath-picture, "Hauchbild") of the nasal respiration. The plates must not be overheated, lest they fail to show the desired effect.

According to the position in which the plate is held against the nose the figures produced differ in shape. If you hold the plate horizontally the figure will be of a butterfly shape, extending to right and left, separated by a dry strip, produced by the intervening septum.

In a vertical position I let the point of the nose touch the plate. If the nose is quite free and normal the figure produced is heart-shaped. Where the nose touches the plate a mark is left, caused by the moisture of the skin. These heart-shaped figures, of course, vary in shape when one or the other nostril is narrowed or closed. If the obstruction is complete the figure is missing altogether; if it is only partial the figure is smaller than its fellow, or it shows a deviation, as is generally the case when spurs are present. In a like manner it may be determined whether the seat of the stenosis is high or low, according to the appearance of the upper or lower parts of the figure. Hence, it may easily be seen that this method possesses great advantages over the former, and is a great aid to the making of a correct and thorough diagnosis.

The great drawback in this experiment is that the figures produced are of too transient a nature, and it is desirable to adopt a process by which they may be fixed and made permanent, in order to compare them before and after operation. After many experiments I have hit upon the following plan:—

I use pieces of pasteboard covered over with slate-paper. The plate is held vertically against the point of the nose, the patient is asked to breathe upon it, and before the breath evaporates from the surface a fine powder is blown upon it through a pulverizer. Pure pulverized sulphur is excellent for this purpose, but powdered boracic acid or similar substances may be used.

The superfluous powder is easily shaken or knocked off, and there is left a well-marked figure of the breath, a "pneumatype." This is then fixed with a spray of varnish, such as painters use for fixing chalk drawings (a spirit solution of shellac). It may be applied with an atomizer.

In this manner I have produced a number of "pneumatypes" of normal noses as well as of a variety of pathological conditions.

THERAPEUTICS AND DIPHTHERIA, &c.

Rethi (Wien.)—*Endo-Nasal Mirror.* "Prager Med. Woch.," 1893, No. 42.

LITTLE mobile mirror for introduction into the nose. *Michael.*

Zarniko.—*Self-retaining Nasal Speculum.* Aerztlicher Verein in Hamburg, Meeting, October 24, 1893.

INSTRUMENT shown. *Michael.*

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Hamilton, Hubert D. (Montreal).—*Guaiacol in Tuberculosis.* "Transactions of the Montreal Clinical Society," June 3, 1893.

THE cases treated by guaiacol were the subjects of laryngeal phthisis as well as of pulmonary disease. All were in an advanced stage of tuberculosis. Eleven cases in all were reported, but in none could Dr. Hamilton see any decided benefit from the treatment. The doses varied from three to twenty minims three times a day.

George W. Major.

Dobie, D. A. (Toronto).—*Inhalations.* "Canadian Practitioner," Jan. 1, 1892.

THIS is a plea for the volatilization of drugs for inhalation. The author claims that drugs in a gaseous state are light, uniform and unirritating, and so diffusible that they are carried by the current of inspired air to every part of the lungs. Sprays, atomizers, or nebulizers, whether worked by compressed air or steam, simply effect the division of the drug into minute liquid particles, which are dense, irritating and non-diffusible. Dr. Dobie recommends the "perfection volatilizer" for use as the most perfect means at our disposal. *George W. Major.*

Ewer (Berlin).—*Massage of the Mucous Membrane.* "Therap. Monats.," 1893, No. 3.

THE author recommends the vibration massage first described by Braun of Trieste, and describes an apparatus, called concussor, similar to the wheel machine of the dentists, with which he performs the method.

Michael.

Kuttner (Berlin).—*Therapeuties of Ozæna.* "Therap. Monats.," 1893, No. 3.

REPORT upon the different methods of treatment and description of an apparatus for the inhalation of vapours for cleansing the nose from crusts. *Michael.*

Philipp (Berlin).—*Etiology and Statistics of Diphtheria.* "Archiv für Kinderheilk.," Band 16, Heft 3 to 6.

IN the diphtheria ward of the Children's Hospital of Berlin, during the years 1891 and 1892, four hundred and twenty patients were treated. In three hundred and seventy-six cases bacteriological researches were made. In three hundred and thirty-two cases Loeffler's bacilli were found; the others were anginas or acute infectious diseases. The cases of diphtheria bacteriologically proved had a mortality of thirty-nine per cent. One hundred and twenty-three cases were tracheotomized, with thirty-two cures. In seventeen per cent. the diphtheria was followed by paralysis.

Michael.

Reisz.—*Experiences with Diphtheria.* "Pesther Med. Chir. Presse," 1892, No. 19.

A REPORT of five hundred and twenty cases, with a mortality of twenty-nine per cent. The treatment consisted in insufflations of benzoate of soda and removal of the membranes with carbolized tampons. The author could not, however, find any visible influence of his treatment on the progress of the disease. The severe cases died as in every method of treatment; the moderately severe and slight cases were cured.

Michael.

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Escherich (Graz).—*Diphtheroid Diseases.* "Wiener Med. Presse," 1893, No. 8.

ONLY such cases in which Loeffler's bacilli are found can be called true diphtheria. Diphtheroid diseases are such as show clinical features similar to those caused by other micro-organisms, especially the scarlet fever angina. The author believes that in scarlet fever intoxication enters by the tonsils. Diphtheritic patients and scarlet fever patients should be isolated from one another. *Michael.*

Johnston, Wyatt.—*A Ready Method of Cultivating the Bacilli of Diphtheria.* "Transactions of the Medico-Chirurgical Society of Montreal," Nov. 11, 1892.

DR. JOHNSTON procures a hard-boiled egg, cracks it at one end, removes the shell membrane, and thereby exposes a perfectly sterile surface, which may be inoculated with dispatch. The egg may be placed, inoculated end downwards, in an egg-cup, and left in a warm place.

George W. Major.

Frosch. — *The Propagation of the Diphtheria Bacilli in the Human Body.* "Zeitschrift für Hygiene," 1893.

UP to now Loeffler's bacilli have been found only in diphtheritic membranes and in the regions infected. The author was able to find them in fourteen cases of diphtheria examined, also in the blood and the internal organs of the patients. *Michael.*

Tobecsin. — *Loeffler's Bacilli in the Throat of Individuals suffering from Diphtheritic Angina.* "Centralbl. für Bacteriologie," 1893, No. 27.

THE author examined forty-six cases which had left the hospital after having been cured of diphtheria. In twenty-four cases he found bacilli some days after cure, sometimes on the sixteenth and twenty-second day, and in one case on the thirty-first day. In none of these cases was the disease propagated to the families of the patients. *Michael.*

Ritter (Berlin).—*Etiology and Treatment of Diphtheria.*

THE author concludes that in every case of true diphtheria Loeffler's bacilli are found. By chemical and thermal influences fibrinous exudative processes can be produced, which are similar to true croup. The bacillus has no relation to fibrinous rhinitis. Scarlet fever angina is produced by cocci and is sometimes combined with true diphtheria. The serum treatment up to now has produced only negative results. Diphtheria must be treated by antiseptic procedures. *Michael.*

Munk.—*Treatment of Diphtheria.* "Pesther Med. Chir. Zeitung," 1892, No. 5.

THE author recommends the external use of ice and internal employment of cognac and milk, locally brushing with creolin solution. *Michael.*

Sziklai.—*Croup and Diphtheria.* "Wiener Med. Presse," 1893, No. 9.

THE author recommends the treatment with mercury cyanate and antipyrin. Locally he applies gargling with sublimate one per cent. He is satisfied with the results of this treatment, and obtained sixty-two per cent. cures. With other methods he only obtained fifty-six per cent. cures. *Michael.*

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Degle.—*Application of Pilocarpin in Laryngeal Croup.* "Wiener Med. Presse," 1892, No. 44.

THE author has applied this drug in four cases, and recommends it.

Michael.

Sziklai (Zombor).—*Laryngeal Croup, and the Cure of Croupous Diseases by Pilocarpin.* "Pesther Med. Chir. Presse," 1893, Nos. 21 and 22.

THE author has treated three cases with this drug, and recommends it, because he believes that by its application secretion of mucus is produced between the mucous membrane and the pseudo-membrane, and that in this manner the pseudo-membrane is removed. [Some weeks before this he was able to cure all cases of diphtheria by mercury (!)—"Wiener Med. Presse," No. 9.] *Michael.*

Fildler (Seibersdorf).—*The Treatment of Pharyngeal Diphtheria (Laryngeal Croup) by Pilocarpin Hydrochlorate.* "Wiener Med. Presse," 1893, No. 2.

THE author has employed this drug in some cases without any therapeutic effect. He concludes that it should not be used in future cases.

Michael.

Romberg (Leipzig). — *Remarks on the Contribution of Dr. Hesse upon the Pathological Anatomy of the Diphtheritic Heart.*

Hesse (Leipzig). — *Answer to Dr. Romberg's Remarks.* "Jahrbuch für Kinderheilk.," 1893, Heft 4.

POLEMICAL articles. *Michael.*

Baginsky, A. (Berlin).—*Clinical Symptoms of Diphtheritic Affections of the Kidneys.* "Archiv für Kinderheilk.," Band 16, Heft 3 to 6.

THE author distinguishes the following types. (1) In slight cases morphological elements are found in the urine, followed by albuminuria, which disappears in a short time; hydropsical affections are not observed. (2) Grave cases, usually combined with severe symptoms of malignity and septicæmia. In the urine are found very many morphological elements, epithelium and very much albumen; the quantity of urine is diminished. (3) Combination of nephritic symptoms with adynamia of the heart. In this form there is prevalence of the cardiac symptoms, but prognosis and treatment are influenced by the nephritic complication in an unfavourable manner. It is not possible to prevent the nephritic complication by any medication. The treatment consists in the use of alkaline waters, such as Vichy and Wildungen, mild preparations of iron and decoction of cinchona. When the albuminuria has disappeared stimulating meat diet, and in cases of adynamia antiseptic medications are indicated. In chronic cases of albuminuria, astringent medications are of great use. The author illustrates his conclusions by some histories of patients.

Michael.

Bernhard and **Felsenthal** (Berlin).—*Contribution to the Pathological Anatomy of Diphtheritic Kidneys.* "Archiv für Kinderheilk.," Band 16, Heft 3 to 6.

THE authors have examined the kidneys in twenty-four cases of diphtheria with the following results:—Microscopically the organs were sometimes enlarged and hyperæmic, sometimes anæmic. Only in severe cases was

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the consistence soft. The microscope showed especially parenchymatous degenerations; of less frequency were glomerulo-nephritis and the pathological degenerations of the connective tissue and the vessels. The details are very minute, and are illustrated by instructive woodcuts, which must be seen in the original. The authors conclude that these degenerations must be regarded as an acute toxic nephritis caused by the poison produced by the diphtheria bacilli. *Michael.*

Baginsky, A., and **Stamm** (Berlin).—*Pathology and Treatment of Scarlatinal Nephritis.* "Archiv für Kinderheilk.," Band 16, Heft 3 to 6.

IN children dead during the first week of scarlet fever we find hyperæmia of the kidneys accompanied by extensive infiltration with round cells; only in rare cases do we remark symptoms of retrogression of the process. During the next few weeks we find the symptoms of acute parenchymatous nephritis. Exact pathological and anatomical researches and illustrations of the microscopical appearances will be seen in the original. Scarlatinal nephritis is of greater influence upon the process of the disease than diphtheritic. A simple diet during the scarlet fever may often prevent the appearance of nephritis, or may mitigate it. Alcoholic drinks and irritating food must be avoided, and constipation be regulated by mild laxatives. Diuretic medicaments must be avoided. Alkaline waters have a good effect. Only in chronic cases should astringent medicaments be applied. In cases of uræmia camphor and chloral hydrate are sometimes of use. *Michael.*

Jäger (München).—*Enlargement of the Heart in Scarlet Fever and Diphtheritic Nephritis.* "Münchener Med. Abhandlungen," Heft 41.

ENLARGEMENT of the heart is more rare in diphtheria than in scarlatinal nephritis. This is caused by the lessening of the cardiac energy in diphtheria in consequence of the degeneration of the heart muscle, and by the frequency of glomerulo-nephritis in scarlet fever. *Michael.*

Behring and **Wernicke.**—*Production of Immunity and Cure of Animals affected with Diphtheria.* "Zeitschrift für Hygiene und Infections-Krankheiten," Band 12, Heft 11.

SEE the report upon Behring's book on diphtheria and his other publications. *Michael.*

Duncan.—*Bromoform in the Treatment of Whooping-Cough.* "Transactions, Ontario Medical Association," 1893.

THE author quoted instances where bromoform had been used with little or no result, and others where a toxic effect had been produced. As a narcotic it had an unfavourable influence on the general condition of younger children. Some reports ascribe to it the power of cutting short the paroxysm rather than shortening the course of the disease. He had found that when a small dose proved ineffectual an increased dose gave great relief. *George W. Major.*

Bokai.—*Interesting Case of Intubation.* "Pesther Med. Chir. Presse," 1893, No. 21.

A PATIENT, two and a half years old, was intubated on account of severe laryngeal croup. The tube could not be removed because constant attacks

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of suffocation followed the attempts. Fourteen days later perichondritis of the larynx supervened. The tube was removed and tracheotomy was performed. Cure resulted, but the canula could not be removed on account of laryngeal stenosis. Fresh intubation was performed, and cure was obtained. *Michael.*

Taub.—*Application of Intubation in Whooping Cough.* "Pesther Med. Chir. Presse," 1893, No. 11.

IN severe cases of whooping cough with attacks of asphyxia, intubation should be applied. The author has used it in two cases with good result. *Michael.*

Fischer (Leipzig).—*Tracheotomy in the City Hospital of Danzig during the years* 1882-89. Inaugural Dissertation.

OF two hundred and thirty-eight tracheotomies, in two hundred and fourteen the operation was performed on account of diphtheria, with forty-eight per cent. cures (one hundred and two cases); two operations were necessitated by foreign bodies, ten by malignant tumours, two by lues, two by glottic œdema, and two by asphyxia. *Michael.*

Ranke (München).—*Intubation and Tracheotomy.* The results of the collective investigation of the Deutsche Gesellschaft für Kinderheilkunde. "Münchener Med. Woch.," 1893, No. 44.

IN four years one thousand three hundred and twenty-four cases of diphtheria and laryngeal stenosis have been treated by intubation, with five hundred and sixteen (equal thirty-nine per cent.) cures. The method is only applied in cases of severe stenosis. It is applied to all degrees of age, and in the youngest children. Of secondary diphtheria, following measles and scarlet fever, one hundred and twenty-one cases have been treated, with twenty-seven (equal twenty-two per cent.) cures. In the first year of life ninety-three cases have been treated, with thirteen cures (fourteen per cent.); in the second year of life two hundred and ninety-five cases, with ninety-two (equal thirty-two per cent.) cures. Of one thousand three hundred and twenty-four cases of intubation, in two hundred and forty-two cases it was necessary to perform secondary tracheotomy, with twenty (equal eight per cent.) cures. Fifty-eight cases with secondary diphtheria and secondary tracheotomy all died. The author also refers to the results of Prof. Wiederhofer in Vienna, who has treated with intubation one hundred and forty-seven cases; with intubation and secondary tracheotomy, sixty-nine cases; with tracheotomy alone, fifty-eight cases. Of these two hundred and seventy-four cases, one hundred and forty-six (equal fifty-three per cent.) have been cured. Of one thousand one hundred and eighteen cases treated by tracheotomy, four hundred and thirty-five (equal thirty-nine per cent.) have been cured. Of forty-two cases of secondary diphtheria, eleven (equal twenty-six per cent.) have been cured. In primary diphtheria both methods gave exactly the same results, *i.e.*, thirty-nine per cent. cures. For both the first years of life the results of intubation are better than those of tracheotomy. The author concludes that the result of the investigation has

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shown that intubation is of undeniable value. Secondary tracheotomy gives bad results, and should only be performed exceptionally. It will be indicated if sudden asphyxia arises during the presence of the intubation tube in the larynx, which cannot be cured by removal of the tube.

Michael.

MOUTH, TONGUE, PHARYNX, &c.

Morelli (Buda-Pesth).—*Syalolith in the Whartonian Duct.* "Pesther Med. Chir. Presse," 1893, No. 31.

A PATIENT, thirty-six years old, complained of pains in swallowing, and swelling under the tongue. Under the right half of the tongue the author found a swelling the size of a fist. From the right Whartonian duct he removed a stone eight millimètres in length and seven millimètres in breadth, the size of a bean. Cure followed. *Michael.*

Partsch (Breslau).—*Congenital Defect of One Half of the Tongue.* "Monats. für Zahnheilk.," 1893, No. 7.

WHEN the patient showed his tongue, the right half seemed to be normal; the left half had an irregular surface. To palpation the right half gave also a normal result, the left seeming to be only mucous membrane in which were some few muscular portions. Without doubt there was a defect of the muscular mass of the left side of the tongue.

Michael.

Lange, F. (Rostock).—*The Movements of the Tongue.* "Langenbech's Archiv," Band 46, Heft 3.

PHYSIOLOGICAL observations on the musculature of the tongue. The paper cannot be referred to shortly, and must therefore be read in the original. *Michael.*

Wetmore, F. H. — *A Case of Acute Circumscribed Hemiglossitis, with Suppuration.* "Montreal Med. Journ.," May, 1893.

THE case occurred in the person of a young man aged eighteen years. The symptoms were first observed on the morning following a day when he had been undergoing severe physical strain in a cold atmosphere, and consisted of pain in the tongue, particularly when pressed upon, and difficulty in swallowing. On examination, the finger readily outlined a fulness of the posterior left half of the tongue, which gradually developed into a tumour rather larger than a robin's egg. Two days later the swelling had much increased, and, as suppuration was suspected, it was deemed expedient to open freely. The tongue was drawn well forward, and two deep incisions were made over the tumour to the left of the median line. There was but little bleeding, and no pus was to be seen. In a few hours, however, the discharge, which was offensive, escaped from one of the wounds, giving marked relief to the sufferer.

George W. Major.

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