extended downwards, firmly adherent to the trachea. In its lower part this constricted band again expanded, and for two inches above the stomach the tube was of its normal calibre. No communication with the trachea, such as occurs in the majority of such cases, was detected, and no other abnormality was found in the thorax or abdomen.

Middlemass Hunt.

Schreiber (Konigsberg).—*New Dilator for Treatment of Strictures of the Œsophagus.* "Berliner Klin. Woch.," 1893, No. 32.

A SOFT rubber tube, which, after being introduced, is filled with water, and is enabled to dilate the stricture. *Michael.*

NOSE AND NASO-PHARYNX.

Mattison (Brooklyn).—*Nasal Medication with Morphine and Cocaine.* "Med. Rec.," April 1, 1893.

HE feels warranted by his experience in saying that "the continued use of morphine or cocaine, be the manner what it may, and known or unknown to the patient, always involves the danger of inebriety," and protests against their use *per nares.* *Dundas Grant.*

Dessar, Leonard A. (New York).—*A New Nasal Bougie.* "Med. Rec.," April 8, 1893.

THIS is made of vulcanized rubber, is one-eighth of an inch thick, four inches long, and three-eighths of an inch wide. It tapers at the point to a thin rounded edge, and at the other end is provided with a rounded handle for the thumb and forefinger. It is intended for use of surgeon and patient, and is valuable in preventing the formation of adhesions after operations—especially galvano-cautery—on the walls of the nasal fossæ. *Dundas Grant.*

Keiper, G.—*A Case of Nasal Hydrorrhœa.* "New York Med. Journ.," July 22, 1893.

THE patient in this case suffered from a constant and profuse nasal discharge. On examination, hypertrophic rhinitis was diagnosed. Treatment was adopted, but failed to effect a cure. The author then advised the use of an atropine spray (sulphate of atropine, gr. ii. aq. dest. ℥i.) three times daily. Rapid improvement set in at once.

W. Milligan.

Bernstein, Edward.—*Hypertrophic Rhinitis, producing Ocular Asthenopia.* "Medical Times," July 22nd, 1893.

THE author draws attention to the fact that cases of asthenopia occur when, even after the refractive error has been properly corrected, headache, etc., continue very much as before. In such cases careful examination of the nasal cavities may afford the proper explanation of the condition. When we remember that the nervous supply of the nasal

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cavity comes mainly from the nasal branch of the ophthalmic nerve, which, early in its course, as it crosses the optic nerve, gives off two or three small twigs, the long ciliary nerves, which, joining with the short ciliary nerves from the ciliary ganglion, pierce the sclerotic, and, running forward between it and the choroid, are distributed to the ciliary muscle and the iris, we can readily understand how certain nasal affections underlie certain ocular conditions. In three cases of troublesome asthenopia the author found the middle turbinated bodies firmly impacted between the septum and the outer nasal wall. On palpation, these masses were found to be excessively sensitive, and gave the same pain as experienced after prolonged usage of the eyes. Cauterization of the engorged turbinals relieved all troublesome symptoms. *W. Milligan.*

Ferber, Rudolf (Hamburg). — *Treatment of Hay-Fever.* "Deutsche Med. Zeit.," 1893, No. 65.

THE author, who himself has for many years suffered from severe attacks of hay-fever, and has tried all methods without effect, has now produced a great improvement of his attacks by irritating the external ear. As soon as the ears are red the attack of coryza diminishes. *Michael.*

Sajous (Philadelphia).—*Pathology of Periodical Hyperæsthetic Rhinitis (Hay-Fever) and its Treatment by Glacial Acetic Acid.* "Universal Med. Journ.," Sept., 1893.

THE author, after studying hay-fever (which he terms "hyperæsthetic rhinitis") in a large number of cases, concludes that it is not a disease *per se* in its active form, but merely the result of a sudden cessation of the inhibitory functions of the nerve-centres presiding over the physiological processes of the upper respiratory tract.

These nerve-centres, under the influence of hereditary or acquired disease of an adynamic type, having themselves become adynamic, are able to carry on their functions under ordinary circumstances; but when demand is imposed upon them for inordinate functional activity, they lose all power of control, and give rise to the symptoms observed after section of the spheno-palatine ganglion, or of the cervical sympathetic, as shown by Claude Bernard, most marked of which symptoms is hyperæsthesia.

Concurring with, and as a result of, this central adynamia there exists a liability of the nasal mucous membrane to become unduly influenced by certain irritants, physical or chemical, or a central susceptibility to the emanations of drugs, plants, animals, or other elements.

When either of these irritants or emanations are subjected by their nature to the laws of periodicity, hyperæsthetic rhinitis manifests itself periodically. If periodicity does not regulate the appearance of the causative elements, the disorder may present itself at any time of the year, whenever the susceptible individual is exposed to the element or elements to which he may be vulnerable.

Habit and psychical impressions, as is usually the case in neurotic disorders of an adynamic type, may play, in an especially sensitive individual, an active part in the production and cessation of the symptoms.

The author ascribes a prominent *rôle* to the ciliated columnar

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epithelium covering different parts of the respiratory tract in the production of a paroxysm, owing to its excito-motor physiological functions and the prehensile retentive powers of the ciliæ. An exception is made, however, in the case of the olfactory area, which is not covered with ciliated epithelium; but the intimate connections between the central sources of nervous supply of both respiratory and olfactory regions readily demonstrate how an emanation to which the sufferer may be inordinately sensitive may act as exciting cause.

The central regions affected he believes to be mainly the grey substance of the bulb which represents the prolongation of the posterior horn, the transit involving the spheno-palatine ganglion, which, besides its motor and sensory roots, possesses a sympathetic root derived from the carotid plexus through the vidian. The presence of asthma as a complication indicates the involvement of a greater central field than that implicated when the nose alone is the seat of paroxysm. This explains the fact that asthma exists in a proportion of the cases only. While in some of these we may have the nasal and bronchial symptoms begin together through simultaneous invasion by irritants of the nose and lungs, especially if the patient is to any degree a mouth-breather, the lungs can become involved, as is well known, through nervous communication; that is to say, by reflex action.

Although not overlooking this reflex cause of asthma in some cases in which it occurs simultaneously with the nasal paroxysm, he does not consider it as entitled to the position accorded it by most authors. Were asthma thus induced in all cases, it naturally follows that its presence would become manifest, as soon as tumefaction of the nasal membrane would give rise to pressure upon the sensitive reflex areas, in all cases in which the central adynamia would involve sufficient territory to also expose the bronchial tract. In the very great majority of cases in which asthma exists as a complication, on the contrary, it appears sooner or later *after* the onset of the nasal symptoms—usually two or three weeks. The lungs in these cases, though exposed by the extent of the central disorder, are protected on account of their anatomical situation, and through the character of the surfaces over which the atmospheric current must pass before reaching them. The nose is obviously the most exposed portion of the respiratory tract, the first landing-place for irritating particles, where they become moistened and softened, losing asperities and chemical force by dilution. The immediate hyperæsthesia, sneezing, tumefaction of the membrane, and copious flow of fluids, although the result of a complete relaxation of the parts, are, nevertheless, exaggerated normal functions, those constituting the inherent faculties of the parts.

The open mouth, however, when the nose is too tightly occluded by the paroxysmal tumefaction to at all permit respiration through the normal channel, becomes the doorway of the irritant-laden atmosphere, and the asthmatic attacks begin sooner or later, according to the quantity of irritating particles permitted to reach the lungs. Many conditions may thus play an active part in the production of an attack, most important of which are the proportionate amount of irritating matter in the air

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inhaled ; the number of respirations per minute : the number of special irritants to which the patient is physiologically sensitive ; the anatomical conformation of the mouth, pharynx, and larynx ; the humidity characterizing these parts in the case, etc., etc.--thus constituting as diverse a series of influencing circumstances as the periods of onset of the bronchial paroxysm are varied. As an evidence of marked value in favour of the protection afforded the lungs by the upper respiratory tract, he cites the increased severity of the asthmatic paroxysm sometimes observed after seasonal relief or cure of the nasal disorder.

As regards the widely differing results obtained from local treatment or cauterization of the nasal mucous membrane, they are ascribed to the great variation existing in the systemic and local conditions capable of giving rise to the central adynamia. The chances of cure of the hay-fever correspond with the chances of recovery presented by the causative dyscrasia, and when a case of hay-fever is cured by local treatment of the nasal cavities alone, for instance, it is because the central disorder in that case was due to a nasal affection. This view is in accord with that of J. N. Mackenzie.

The proportion of permanent cures obtained have been greater, and the relief afforded in uncured cases more marked and lasting, under glacial acetic acid than under galvano-cautery applications. The vibratile movement of the cilia, as is well known, is stimulated by alkaline solutions and arrested by acid ones, while mucus, or its denser element, mucosine, formed by the process of desquamation, is coagulable by acetic acid, but not by heat. The marked affinity of glacial acetic acid for epithelial cells is therefore an established fact ; so that it possesses every quality calculated to annul, for the time being, the local physiological functions. By causing an organic alteration by coagulation of the entire epithelial layer it paralyzes or destroys the terminal filaments furnishing the parts with sensation, and, of course, by disorganizing the cilia, annuls their power of retaining in their meshes the irritating elements which induce the paroxysm. Galvano-cautery produces the same superficial action, but does not affect the deeper portions of the epithelial layer unless pressure is exerted. In that case the area cauterized at each sitting has to be much narrower than when glacial acetic acid is used, and even then the resiliency of the membrane usually causes it to recede before the knife, while the surrounding parts pour out a quantity of mucus, which greatly tends to reduce the heat and to annul its power of penetration. This causes the cauterization often to be but partial. With glacial acetic acid no pressure need be exerted : chemical disorganization taking place at once through its affinity for epithelial cells, the deeper ones yield as readily as the superficial.

The epithelium of the mucous membranes is being destroyed and replaced throughout life, sometimes very rapidly, as in catarrhal affections. In its reproduction it is always derived from pre-existing epithelium by simple division of cells, the evolution taking place from depth to surface. When, however, the surface becomes in any way disorganized, and an ulcerative process occurs as a result, the reproduction takes place from the side, the new epithelium spreading from the edge of the ulcer. We

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have in this an explanation of the conditions permitting a return of the paroxysm the year following a season of even complete prophylaxis by local treatment. As soon as the inflammatory disorder (in itself a protective) following the applications recedes, the reproduction of epithelial cells begins, and continues until the membrane re-assumes its former state. The less perfect disorganization produced by the galvano-cautery knife naturally facilitates this process, and the chances of affording relief for the season are not so great with it as when glacial acetic acid is employed. The ten months intervening between seasons, however, are amply sufficient to permit complete restoration of the mucous membrane, whatever caustic may have been employed.

Another marked advantage of glacial acetic acid is that it presents none of the awe-inspiring peculiarities possessed by the galvano-cautery, and patients readily undertake the treatment and continue it. In cases in which the cauterizations do not prevent recurrence the following year, Sajous advocates, in connection with the treatment calculated to correct the central adynamia, renewed cauterizations, not only to prevent the paroxysm for the season, but also in the hope of ultimately eradicating the disorder by gradually lowering the sensory status of the mucous membrane from year to year, and giving the central ganglia an opportunity to recuperate a certain amount of physiological strength while losing the element of habit, a not unimportant feature of these cases. The period of ten months intervening between attacks should be taken advantage of to seek for the source of the central adynamia. Not an organ, system, fluid, or secretion, or unusual personal habit should be overlooked.

To the many etiological disorders already noted in the literature of the subject the author adds rickets and its secondary nervous phenomena affecting the patient, his ancestry, his near relatives, or his children—a subject furnishing much food for thought, and suggesting phosphorus and its preparations and active physical exercise in the treatment of the disorder in a correspondingly large proportion of cases. The presence of cardiac disease in two marked cases of hyperæsthetic rhinitis—father and son, the only members of a large family suffering from either affection—also suggested a possible relation between the causative inhibitory disturbances of the upper respiratory tract and those of the heart.

He condemns the advice given by some authors to avoid local measures after the annual paroxysm has begun, and describes cases to demonstrate the value of cauterization of the nasal cavities, begun within the month preceding the attack or during the latter. In these cases the results were all the more valuable, in that they were treated before cocaine had been introduced, and owing to the fact that no objective disease or malformation of the nasal fossæ existed, the author believing with Greville Macdonald that the greater the amount of objective mischief the greater likelihood of a successful result. He asserts in this connection that had the treatment by cauterization of the nasal mucous membrane been considered by its supporters from the start as calculated solely to arrest the year's paroxysm, not only would it have presented as great a proportion of successes as any method proposed in any other

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branch of surgery, but it would have furnished ample opportunity for unexpected results, *i.e.*, the quite respectable number of permanent recoveries.

The multiplicity of etiological factors, the involvement of anatomical elements, peripheral and central, playing in the evolution of the disorder *rôles* of physiological import varying according to the form and kind of external irritant, and other considerations, warrant him in continuing the use of the term "hyperæsthetic rhinitis," which he proposed some years ago in preference to those including any particular irritant, such as "hay fever," "rose cold," "peach cold," "rag-weed fever," etc., or even those pointing to a distinct anatomical system or constituent, such as "sympathetic rhinitis," "vaso-motor rhinitis," or "vaso-motor coryza," etc., which suggest but one of the more important systems brought into play, and which, for this reason, might be applied to several affections. "Hyperæsthetic rhinitis" points to the apex of the pyramid of elements forming the disorder, the culminating aim of all its phenomena; it only indicates an aberration—"hyper" (ὑπέρ), excessive—of a physiological sense—"æsthesia" (αισθησις), sensibility—truly implying the existing state of things, the disorder being as stated a physiological adynamia, and not a disease involving, as far as we know, distinct central histological changes. Furthermore, it gives an immediate clue to the most prominent cause of active symptoms, and suggests through this the remedial procedures to be adopted.

Palliative treatment is briefly alluded to. The engorged tissues are contracted by means of a solution of cocaine, and the effect is maintained by means of a ten per cent. solution of menthol, in almond oil, the author objecting to mineral oils on account of the sensation of heat they occasion after a few days' use. One application of the cocaine solution every other day by the physician, and ten or twelve applications of the menthol solution a day by the patient, usually suffice to keep him comfortable without exposing him to the cocaine habit. Atropia internally, gr. $\frac{1}{200}$ every four hours the first day, then every six hours, greatly increases the efficacy of the nasal treatment. *Sajous.*

Hanford (Nottingham).—*Foreign Body in the Nose for Twenty-seven Years.* "Brit. Med. Journ.," July 15, 1893.

THIS occurred in a nursemaid, aged thirty-one years, and had produced nasal symptoms for only two and a half years, commencing after an attack of influenza. At first a watery discharge was noticed, which subsequently became thick, yellow and fœtid. Examination *secundem artem* showed the left nostril blocked by a conglomerate of decaying material and reddened vascular membrane. The probe detected what was thought to be a sequestrum of dead bone. After removing detritus, pieces of dead bone, etc., a movable body was found deeper in the nostril and removed. It was the size of a filbert nut, and had a nucleus, a perfectly formed cherry stone, surrounded by a calcareous shell one-third of an inch thick, making the whole one inch in its longest diameter. The history of the case proved that the stone, along with others, had been placed in the nostril when the patient was four years old, when two stones were

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removed. The absence of symptoms for such a length of time was to be remarked upon. The patient made a good recovery. *Wm. Robertson.*

Sheild, Marmaduke.—*The Common Gelatinous Polypus of the Nose.* "The Clinical Journ.," Aug. 2, 1893.

THE gelatinous polypus of the nose is mainly composed of loose connective tissue, sodden and distended with mucin, and covered with ciliated epithelium. The growths are usually vascular, and swell up in damp weather. They are almost invariably multiple. In the majority of cases they spring from the mucous membrane covering the outer wall of the nose, either from the middle turbinal or the mucous membrane of the outer wall of the nasal groove overlapped by it. Polypus growing from the septum is almost unknown. At times they spring from the lining membrane of one of the accessory nasal cavities. In exceptional cases these growths, originating high up in the nasal cavities, absorb the thin and papery bones, and encroach upon the cranial cavity, producing fatal meningitis. For their diagnosis a speculum and a good light is required. In the treatment of the condition it is important to remove all the growths. This is best accomplished by means of the cold wire snare. The best position for the patient is in a sloping chair or couch, with the head well raised. The parts should be freely painted with cocaine. The operator cannot be too careful to detect and destroy the very small polypoid growths, for it is the continued growth of these which leads to such rapid and inveterate reproduction of the disease. After the growths have been carefully removed, the mucous membrane in the situations of the former polypoid growths should be destroyed with the actual or chemical cautery. In cases of general polypoid disease free access to the nasal cavities should be obtained, and the bones and mucous membrane from which the growths spring should, as far as possible, be removed. This is best accomplished by performing Roux's operation. After the preliminary steps of the operation have been accomplished the inferior turbinals can be shaved off with a fine saw, and access thus gained to the neighbourhood of the middle turbinal, where the majority of growths originate. *W. Milligan.*

Caldwell (New York).—*Diseases of the Pneumatic Sinuses of the Nose, and their relation to certain Affections of the Eye.* "Med. Rec.," April 8, 1893.

THE writer urges the search for intra-nasal disease as an etiological factor in cases of disease of the eye. Disease of the ethmoid bone and cells is more especially apt to lead to disorders of intra-ocular and conjunctival circulation and a group of symptoms which may be called asthenopic, while affections of the sphenoidal sinus are more likely to affect the optic nerve and the motor nerves of the eye. He quotes cases from the writings of well-known authors (including "Lenox Brown" and "Wakes"), and narrates three of his own. In one, asthenopia and orbital pain were so completely removed by treatment of "left hypertrophic ethmoiditis" causing pressure on the septum that the patient did not return for the prescribed glasses, and reported six months later that her sight had improved so much that she did not require them.

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In another there were intermittent basilar headache, attacks of hyperæsthesia of the retina, pain in the right eye, and blurring of near vision, incapacitating the patient for work. Treatment of the suppuration in the anterior ethmoidal and the sphenoidal sinuses brought about recovery. The third was one of bilateral "cystic and necrosing ethmoiditis," with suppuration in the sphenoidal and posterior ethmoidal cells, which had led to loss of sight of both eyes from optic neuritis. Treatment of these sinuses relieved the intense headache, whereas iodide of potash had been of no avail. *Dundas Grant.*

Brown, Moreau R. (Chicago).—*Empyema of the Maxillary Sinus and its Relation to Diseases of the Antrum of Highmore.* "Med. Rec.," Apr. 1, 1893.

THE writer believes that suppuration in the antrum of Highmore is in many cases due to nasal catarrh. He considers transillumination of value in so far as translucency is incompatible with the presence of pus in the antrum. As evidence that pus is present, he attaches value to the occurrence of effervescence when peroxide of hydrogen (one part to twelve of water) is injected into the hiatus semilunaris. Exploratory puncture through the outer wall of the inferior meatus is spoken favourably of for diagnostic—not for therapeutic—purposes. He prefers "making the perforation at the alveolar apophysis." He cuts out a circular piece of mucous membrane with a tubular knife just below the gingivo-labial fold, between the roots of the second bicuspid and first molar. A drill, driven by an electric motor, is directed upward, inward, and backward at an angle of about forty-five degrees with the plane of the alveolus. The opening can be enlarged, and in any case a gold drainage tube can be inserted, the entrance of food being prevented by the cheek. He expresses his indebtedness to Dr. Robertson, of Newcastle, for his contributions to the study of the subject, especially in regard to the relation of ozæna to antral disease. *Dundas Grant.*

Wolfenstein, Julius.—*A Case of Acute Empyema of the Antrum of Highmore of Nasal Origin.* "New York Med. Journ.," Aug. 5, 1893.

THE patient, a man aged thirty, consulted the author on account of having a severe cold in the head of two weeks' duration. During the three days previous to the consultation he had noticed soreness of the teeth, and pain in the cheek of the left side. There was also a profuse discharge of pus from the left nostril and considerable pain, especially at night. On examination, the mucous membrane of the left lower turbinal was so swollen that nothing of the interior of the nose could be seen. After an application of a twenty-five per cent. solution of cocaine, a considerable quantity of pus was seen in the nasal passage, particularly in the region of the middle turbinated bone. The transillumination test showed that the left side of the face was perfectly dark, while the right side was quite clear. The patient was instructed to syringe the nasal passages frequently with a solution made from Seiler's tabloids. Rapid recovery took place. The author refers to the fact that most of the leading text-books upon diseases of the nose hardly mention acute empyema of the antrum of Highmore as caused by acute rhinitis. He is of opinion that this is a cause more frequently at work than is usually

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supposed. As regards the value of the transillumination test, he thinks that it is of value in some cases to corroborate an already established diagnosis of empyema of the antrum, but that it cannot be regarded as a reliable method in the diagnosis of actual empyema, particularly if the other well-known symptoms of this affection are absent. *W. Milligan.*

Blair, Louis E. (Albany, N.Y.).—*Syphilis of the Naso-Pharynx, with Report of a Case of Tertiary Syphilis of the Sphenoid.* "Med. Rec.," April 15, 1893.

THE writer recalls the relations of the naso-pharynx, and expresses his opinion that tertiary syphilis in that region is apt to take on a destructive or spreading condition, contrary to the view held by Bosworth and a few other authors, but that it is a rare affection. The diagnosis has to be made from adenoid hypertrophies, from ozæna, tuberculosis, and lupus. [No reference is made to malignant disease and non-specific "necrosing ethmoiditis."—ED.] He attaches importance to the "brick-red arch of Pick"—two brick-red narrow bands running along the margin of the arcus palato-glossus, starting at the tonsil and stopping short equidistant from the root of the uvula. The "stench" also differs from that of ozæna in not being materially modified by deodorizing washes. Large doses of iodide of potassium may alone clear the uncertainty in doubtful cases. An illustrative case is quoted, in which a sequestrum consisting of half of the body of the sphenoid came away. The infection was acquired twelve years previously, and the nasal symptoms had lasted only a fortnight. After irrigation thrice daily through a hole in the palate, the swelling subsided and the sequestrum could be moved. It was ultimately dislodged, after ten days, by means of a laryngeal probe, and pushed into the mouth. He is opposed to violent attempts at removal, but recommends a free incision through the soft palate for the purpose of antiseptic irrigations and drainage. He prefers fuming nitric acid to nitrate of silver as an application to deep ulcers with tendency to phagedena. Much depends on constitutional treatment in the way of liberal diet, for "unless you have the blood in a reparative condition, it is useless to storm the patient with depressing drugs of mercury and iodide of potassium." [In this we cordially agree, and, as a matter of routine, when syphilitic lesions do not respond to specific treatment in poor out-patients, we take them into hospital, and, by feeding up, neutralize the inhibitory effect of the *res angustæ domi*.—ED.]. *Dundas Grant.*

Fearsley, P. Macleod (London). — *Hæmorrhage from Post-Nasal Growths.* "Brit. Med. Journ.," July 22, 1893.

THE patient was a girl, aged eight years, who had had epistaxis for fourteen days before coming under notice. As she was puny, ill-developed, and had left otitis media purulenta, adenoid growths were diagnosed and removed, after which all bleeding ceased.

The statement made by the author that a good finger-nail is all that is required for the removal of these growths is certainly too sweeping. It is unnecessary to combat the remark in these pages beyond suggesting that contemporaries ought to display a little more discretion, so that even small errors may be eliminated. *Wm. Robertson.*

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