(*e.g.* in dividing the tongue down the centre). After removal of the mass of tissue containing the growth I always go over the whole surface of the wound with a button-shaped instrument; this increases the chances of the growth being completely destroyed. With regard to cases in which bone is involved, I agree with what Mr. Rose has said, and I can recall grave disappointment in a case of malignant disease affecting the upper jaw. In the patient shown I am quite certain that the disease did not involve the bony palate, but was confined to the mucous membrane. Notwithstanding this fact, I am glad to see necrosis occurring, as it shows that destruction has taken place well beyond the diseased area.

Case for Diagnosis.—George Badgerow.—Male patient, aged about thirty-eight. Web extending from the soft palate to the pharyngeal wall; probably due to diphtheria in early life. It did not cause any inconvenience, and it was discovered by chance.

The PRESIDENT: I looked upon it as cicatrisation following ulceration. The patient was very ill with scarlet fever when he was aged four.

Abstracts.

PHARYNX.

Retro-pharyngeal Abscess.—Calvin C. Rush. "Journ. Amer. Med. Assoc.," July 20, 1918.

The body of an unknown two-year-old negro child was brought to the Jefferson Medical College, Philadelphia, for anatomical purposes. The body was not in a good enough state of preservation for dissection, so a sagittal section was made after fixation in formalin. A retro-pharyngeal abscess was disclosed, completely obstructing the pharynx and larynx. The abscess cavity was 3 cm. in length, and projected forwards 2 cm. The writer here gives the anatomical relations with reference to this condition.

Immediately behind the mucous membrane of the pharynx is the pharyngeal aponeurosis. Behind this are the pharyngeal constrictors, which in turn are covered by the thin buccopharyngeal fascia. Next is the strong layer of prevertebral fascia covering the prevertebral muscles.

The sources of infection causing retro-pharyngeal abscess may be as follows: (1) Caries of the cervical vertebræ, usually tuberculous. This burrows laterally as a rule, and appears behind the sterno-mastoid. If unopened it may follow the brachial plexus into the axilla. (2) Otitis media. The pus probably burrows downwards in the upper part of the Eustachian tube along the tensor tympani muscle to terminate behind the prevertebral fascia. (3) Extension inwards of a carotid abscess. (4) Infection of the lymph-nodes of the retro-pharyngeal space. These receive lymphatics from the nasopharynx, Eustachian tubes, nasal fossæ and accessory sinuses. *J. K. Milne Dickie.*

Epidemic of Sore Throat at Fort Ethan Allen.—Maj. Brewer. "New York Med. Journ.," May, 1918.

An outbreak of sore throat took place in a troop of U.S.A. cavalry. Forty-four cases occurred within a few days. There was slight ulceration

of the soft palate or tonsils with formation of a greyish membrane. None of the cases were seriously ill and the condition cleared up very rapidly in two to three days. Bacteriological examination showed streptococci in certain cases and in others spirilla and fusiform bacilli. One other case of Vincent's angina had occurred in the troop three months before, but no very definite connection between this case, and the outbreak was discovered, as the first case did not sleep with the others but merely fed with them. No further spread of the epidemic occurred. Writer was of opinion that the first case had infected the cook, and the cook had infected the rest. *J. K. Milne Dickie.*

The Control of Bleeding in Tonsillectomy.—William Dwyer. "Laryngoscope," September, 1917, p. 688.

Dwyer states that the amount of bleeding during the removal of tonsils decreases as the depth of anæsthesia (general) increases. With the Sluder method he has had more bleeding than with dissecting. The use of suction during the operation is a great advantage. The majority of bleeding points can be controlled by making pressure with gauze sponges. When pressure applied for a short time does not stop the bleeding, it is best to tie the bleeding vessel. Ligatures work well, but are hard to place, and may slip afterwards. A flat-jawed needle forceps, some full-curved needles and a Carmalt clamp are all that are required. Number 0 iodine catgut does very well for the suture material, and 18 in. is a convenient length. It saves time to have a needle threaded on each end of the suture material.

Method.—Retract the anterior pillar, and sponge in order to locate the exact point. Catch it with a Carmalt clamp, including just as small an amount of tissue as possible. Then take a stitch just above the clamp, but as near the points as possible, introducing the needle antero-posteriorly. If slight inward traction is made with the Carmalt clamp while introducing the needle the tissues will be tented, and it will be possible to include only a minimum amount. Now, taking the needle on the other end of the suture, make a similar stitch below the clamp, towards the tongue, again going antero-posteriorly. The clamp is now removed to give more room in tying. When it is tied you have a purse-string suture around the point in question, and bleeding from that point will be impossible. If care is taken not to include too much tissue there is no distortion. In a very few cases there will seem to be a general oozing. Then a gauze sponge inserted between the pillars and held in by a couple of sutures through the edges of the pillars will control it. The sponge should be left in for twenty-four hours.

Adenoid Bleeding.—After removing the adenoids, rubbing the naso-pharynx with gauze wet with alcohol will remove any small tags. Then pack gauze into the nasopharynx with the finger, and leave in position for an hour or so. *J. S. Fraser.*

Two Hundred Consecutive Tonsillectomies under Local Anæsthesia.—Oscar Wilkinson. "The Laryngoscope," September, 1917, p. 667.

After-care of the Patient.—Those who complain of pain are given an ice-pack around the neck, and some demand an injection of codeine or codeine by the mouth. In nervous subjects Wilkinson found that one or two doses of bromide of potash had a good effect. In the series of two hundred cases there were four of primary hæmorrhages (within seventy hours of operation), but it was necessary in only one case to ligate the

bleeding vessel. There were three cases of secondary hæmorrhage, and in only one case was it necessary to sew up the tonsil-cavity.

Another complication is neuralgia of the throat. Within a few weeks after operation the patients return with a stinging, burning, lancinating pain at the lower anterior portion of the tonsil scar. This is due to the involvement of a tonsillar branch of the glossopharyngeal nerve in the scar. Injury to the main portion of the glossopharyngeal nerve might occur in this region. The patient suffers for a long time, if not indefinitely, from a severe dryness of the throat and fatigue after singing or speaking. *J. S. Fraser.*

The Teeth and Tonsils as Causative Factors in Arthritis.—R. Hammond (Providence). "Amer. Journ. Med. Sci.," October, 1918.

This paper contains a historical review of the subject, as well as an analysis of a series of forty cases observed by the writer himself. Referring to the diagnosis of dental abscess he states that the interpretation of dental skiagrams is full of pitfalls. It is possible to take a skiagram from such an angle that an apical abscess is apparently demonstrated, while another made from a slightly different angle will show normal bone around the tooth-apex, the reason being that at certain angles a portion of the nasal cavity or antrum may overlie the tooth-root and simulate the appearance of an abscess. Again, an apical shadow may represent atrophy or absorption from long-continued irritation or pressure; it may mean an acute infective process or may indicate merely the remains of former disease—scar-tissue. These shadows do not necessarily indicate the presence of pus. Thus, many innocent teeth are being sacrificed from insufficient data, such as crudely-interpreted skiagrams. Worse than this, several fatalities from ill-advised extraction of teeth during periods of exacerbation have been reported. It is well to remember the remarkable ability of the tooth and adjacent structures to bring about spontaneous cure of a blind dental abscess with no resulting systemic involvement.

The writer's forty cases of arthritis included twenty-nine in which the teeth and tonsils were proved to be diseased: in twelve of these the teeth alone were affected, in eleven the tonsils alone, and in six both teeth and tonsils. Immediate improvement, which could be classed as a cure, followed extraction of teeth in only one case and tonsillectomy in one case. Many cases regarded as "improved" showed the improvement rather in their general health than in a changed appearance of the joints. The improvement following treatment of dental disease was more noticeable than the improvement following operations on diseased tonsils.

The conclusion is that the relation of the teeth and tonsils to arthritis is still a moot question, and it is probable that the pendulum has swung too far in the direction of the wholesale removal of teeth and tonsils. One reason for the failure to obtain successful results in arthritis by the treatment of dental and tonsillar disease is that the cases have been selected without knowledge of the exact pathological condition present in the organ in question. The crypts of a tonsil may overcome an existing infection, and an apical dental abscess may become walled off and so undergo a natural cure. In neither of these cases will operation influence the joint condition. In acute arthritis the probability of producing a cure or improvement by removal of a supposed focus in teeth or tonsils is greater than in cases in the chronic stage. It is unreasonable to expect that a restoration of function can be brought about in

joints where extensive pathological changes have taken place. The writer has been impressed during the investigation by the marked improvement in the general health of the patients when diseased conditions of the teeth and tonsils have been properly treated. This is noted very commonly even when no damage is apparent in the joint condition. *Thomas Guthrie.*

NOSE.

Nasal Septum Deformity in Children.—Louis G. Kaempfer. "The Laryngoscope," December, 1917, p. 868.

Zuckerkandl has said that septal deviation does not occur before the seventh year, *i.e.* before the development of the jaw with the second dentition. The upper jaw in civilised man is much smaller than in his forebears. The Gothic type of palate, usual in infancy (!), persists more often nowadays, and there is not room for the larger teeth of the second dentition. The result is a crowding upward and buckling of the vomer and other parts of the septum. The jaw does not expand sufficiently for the palate to flatten out and leave room for the downward growth of the septum. In his examination of 314 children Kaempfer has noticed that many had slight thickening of one or other side of the septum, and holds that it is quite probable that later on these thickenings may develop into true deviations. Two groups of children were examined. The larger group (220) was seen in the Out-Patient Department of Mount Sinai Hospital. The youngest child was five weeks old and the oldest seven years. One hundred and eight children (about 50 per cent.) showed deformities of the septum: 65 had thickening, and 43 deviations. The proportion of deviations and thickenings of the septum increased as the children grew older. There were few in whom abnormal turbinates could be found; indeed, only 12 showed hypertrophy of the lower turbinate, and 10 a similar condition of the middle turbinate. In all but one of these children the enlargement of the turbinates was associated with thickening or deviation of the septum, and Kaempfer holds that the condition of the turbinates is the effect rather than the cause of the deviation. Almost all of the children examined had high, arched palates—in fact, only 11 per cent. had low palates. Of the 25 children with low palates 12 had thickened septa and one had a deviation. Out of 108 cases with septal deformity 101 had enlarged tonsils (93 per cent.). Among the children without septal deformity only 77 per cent. had hypertrophied tonsils.

The second group of cases were drawn from children living in a large institution. These cases numbered 94, and ranged in age from six months to five years. They lived under excellent surroundings, spent much time out of doors, slept in well-ventilated rooms, and were guarded against errors in diet. Of these 94 children, 38 showed abnormality of the nasal septum (24 thickening and 14 deviations). Only one child had large turbinates. Seventy-one of the children had enlarged tonsils.

J. S. Fraser.

EAR.

Changing Methods and Advances in the Treatment of Progressive Deafness from Chronic Secretory Otitis Media.—F. P. Emerson. "Annals of Otology," xxvi, p. 1007.

The author insists that every case of chronic progressive middle-ear deafness has a primary focus, which persists as a low-grade infection,

subject to acute exacerbations. In chronic cases such foci are usually multiple. Such a primary focus is usually constant for the individual, and is indicated by the location of exacerbations. Every case showing variable hearing can usually be improved up to their best hearing, or more. In the experience of the author so-called cases of nerve-deafness of non-specific origin are due to toxæmia from some definite focus. In chronic cases inflation as a routine treatment is unscientific and harmful, the tube being already open and having partially lost its tone in the majority of cases, whilst in the cases where the tube is not open it does nothing to remove the cause. Nasal obstructions do no harm to the middle ear unless infection is present. Such obstructions, however, are the primary cause in the development of imperfect drainage, which predisposes to infection, and which is always present in cases of chronic secretory otitis media originating in the nose. Foci, whether in the sinuses, tonsils, mandible, or epipharynx, are potential factors in the progress of chronic progressive otitis media, either by direct extension or through the lymph and blood-streams. No hearing test will forecast the improvement in a given case as long as we have a positive Rinne with variable hearing. Whatever the macroscopic appearance of the membrana tympani, the cause of the deafness is active for a long time outside the middle ear as a toxæmia or low-grade infection subject to acute exacerbations. Constitutional diseases have but little effect on the course of chronic secretory otitis media, except to lower the resistance of the patient and make him more susceptible to exacerbations of their localised focus or foci. *Macleod Yearsley.*

Ablation of the Labyrinth in a Case with Menière's Symptoms.—Courtenay Yorke. "Brit. Med. Journ.," October 19, 1918, p. 429.

A man, aged fifty-one, who had led a quiet and temperate life, was suddenly seized with vertigo and sickness, which persisted for several days. He had a second attack six weeks later, and after that the attacks recurred every month or so, lasting for several minutes or several hours. There was a prodromal feeling of sea-sickness, and a minute later intense vertigo, nausea and vomiting. During the attack the patient was quite prostrated and the slightest movement aggravated the symptoms. After eight months he became suddenly deaf in the left ear, with loud tinnitus, and this deafness became almost complete, whilst the Menière attacks increased in frequency. The general health suffered, and he became depressed and neurasthenic and unfit for any work.

Four years after the commencement of the symptoms he had two attacks of unconsciousness, and at this stage he came under the writer's care. Both drums were normal. Rinne was negative on left and positive on right. Left ear almost quite deaf, right ear slightly deaf. Bone-conduction reduced on left markedly, on right slightly. Nose and throat healthy. No spontaneous nystagmus and no Romberg sign. Both labyrinths gave normal reactions (time not stated) to the caloric test, the left being the more sensitive.

A diagnosis was made of bilateral labyrinth disease, worse on the left side. All the evidence pointed to the fact that the left side was that which gave rise to the Menière attacks, and as the hearing on this side was lost and the symptoms were becoming worse and making the patient's life intolerable, operation was undertaken. The antrum was opened in the usual manner, but the tympanic cavity was left undisturbed. The posterior meatal wall was only partly removed, and as soon as the antrum

was opened a plug of gauge was placed in the aditus in order to wall off the tympanum. The external semicircular canal was opened by removing small scales of bone with a minute gouge. The opening was enlarged forwards towards the ampullæ of the superior and external canals and sufficient access obtained to allow the introduction of a fine wire with which the vestibule was fitted.

The author claims originality for this method of destroying the labyrinth—a method which combined the simplest technique with the smallest trauma.

The wound was drained for twenty-four hours. As was to be expected, the operation was followed by severe vertigo, nystagmus to the right and a tendency to fall to the left, but within two weeks the patient could walk about without support. The hearing on the left side was gone and tinnitus greatly reduced. Caloric test of the operated side produced no response. As time went on the sense of balance became restored and vertigo and nystagmus disappeared.

When seen eighteen months after the operation the patient stated that there had been no return of the old attacks, and that his balance so improved that he could cycle with ease. *Douglas Guthrie.*

Contribution to the Study of the Reactions of Equilibrium.—J. Coulon. "Rev. de Laryngol., d'Otol., et de Rhinol.," April 15, 1918.

A monograph of original research of outstanding interest to otologists. The author begins with a *resumé* of certain physiological points, including a reminder that in any nystagmus the involuntary, unconscious, uncontrolled movement is the slow component, the quick component being a voluntary recovery. So that what we speak of clinically as a nystagmus to the left is in truth a nystagmus to the right, and *vice versâ*.

He then proceeds to his research, which deals with the lateral bending of the body and deviated gait on attempting to walk, with closed eyes immediately after rotation. All such lateral movements he includes under the term "lateropulsion." And the kernel of the matter is that the direction of lateropulsion differs with the stimulus used, and accordingly corresponds to either the slow or quick component. Thus, to summarise:

(1) In caloric tests lateropulsion is in the same direction as the involuntary eye-movement, *i. e.* the slow component—*e. g.* towards the ear irrigated with cold water.

(2) In rotation tests the reverse holds: after being turned clockwise, there is lateropulsion to the left, *i. e.* in the direction of the voluntary quick component.

(3) If instead of rotating the body we stimulate by circumduction of the head above, body fixed, the involuntary slow movements of eyes and body are homolateral as in (1), and contrary to (2) above.

To explain this difference in lateropulsion when head-circumduction is substituted for body rotation, the author suggests that in the former the endolymph of the vertical rather than the horizontal canals is set in motion.

(4) In hyper- or hypo-excitability of the labyrinth, lateropulsion reactions are invariably increased or diminished *pari passu* with nystagmus; this is demonstrable on deaf-mutes.

(5) A patient suffering from "commotion deafness" will always show a lateropulsion in only one direction (which may be right or left), whichever way he be rotated. And this persistent unilateralisation of

lateral movement of the trunk is unaffected by hyper- or hypo-excitability of the labyrinth, as evidenced by nystagmus reactions.

This last finding the author says he has no suggestion to explain. The paper is a real addition to our patchy knowledge of a fascinating subject. *H. Lawson Whale.*

MISCELLANEOUS.

Constitutional Hypersensitiveness and Bronchial Asthma.—Arent de Besche. "Presse Med.," April, 1918.

In thirty-one cases of asthma, the asthmatic condition was in twelve cases found to have a definite relation to the presence of certain animals, viz., in eleven cases to horses and in one case to cats; in another case the asthma had a peculiar relation to the proteids of one of the ordinary sorts of grain, presumably wheat.

In cases where the asthmatic condition is brought about by the presence of horses, a conjunctival reflex may be elicited in the following way: The finger is placed on the skin of a horse and then applied to the conjunctiva of the patient. In all cases of "horse-asthma" conjunctival redness, abundant lacrymal secretion and slight œdema of the conjunctiva appear. Five of the cases also showed a cutaneous reaction. This is shown when a drop of horse-serum is applied to a vaccination scratch. In positive cases a bleb develops on the spot.

In a case of "horse-asthma" an injection of 2 c.c. antidiphtheritic horse-serum produced a state resembling anaphylactic shock. After recovery the patient was for four months entirely free from his asthma. During this period he was able to handle horses without any recurrence of the asthma. Later on the asthma reappeared.

Some cases of horse-asthma are also similarly affected by cows, dogs and other domestic animals, while others are only sensitive to the horse.

It is somewhat dangerous to inject horse-serum into a person subject to horse-asthma, but in other asthmatics and hay-fever patients horse-serum has no specific harmful action. One may be on the safe side by making use of the above-mentioned conjunctival and cutaneous reactions to see whether the patient is abnormally sensitive to the horse before giving the serum. *J. K. Milne Dickie.*

Gummatous Syphilis of the Thyroid Gland.—F. E. Senear (University of Michigan). "Amer. Journ. Med. Sci.," May, 1918.

Tertiary syphilis of the thyroid gland is of rare occurrence, the total number of recorded cases being twenty-three, including one which forms the subject of this paper. In only eighteen of the cases was the sex stated, and of these eleven were women and seven men, there being therefore a definite preponderance of the female sex. The cases so closely resemble carcinoma that a differential diagnosis on clinical grounds alone is often impossible. As a rule a hard, nodular or smooth tumour is found involving either lobe, the isthmus, or the whole gland. Symptoms due to thyroid disturbance are unusual, and when they occur are those of myxœdema, or apparently in rare cases those of hyper-thyroidism. Symptoms due to interference with respiration are very common, and may be so severe as to cause death. In at least nine of the cases there was involvement of the respiratory or food passages.

Tracheal stenosis occurred three times, œsophageal stenosis once, and tracheal ulceration once. Recurrent laryngeal paralysis was found twice. In two of the cases the disease began in the larynx, and extended to the thyroid gland, while in all the others the gland itself was first involved. Response to treatment is as prompt as is usual in syphilis of other parts, and if the nature of the condition is realised and treatment begun in good time the prognosis is very favourable. *Thomas Guthrie.*

REVIEWS.

Pathologie de Guerre du Larynx et de la Trachée. By E. J. Moure, G. Liebault and G. Canuyt. Pp. 370. Paris: Librairie Felix Alcan.

This monograph is a well-written and well-illustrated work, which not only deals with all the pathology, as its title would indicate, but also traverses with very considerable detail the anatomy, therapy, and surgery connected therewith. Indeed, it would not be out of place in the libraries of peace as a most readable and instructive treatise on certain injuries and diseases of the larynx and trachea. The epithet "de guerre" is a little misleading, though fashionable, as it is difficult to discover a disorder therein described which, strictly speaking, can be regarded as peculiar to warfare. After all, the human frame and temperament remain unchanged however much environment may vary, and traumatic atresia of the larynx presents the same problems whether the result of an attempted suicide or due to a fragment of shell.

The description is divisible into four parts, the first of which discusses "functional" troubles, the second extra-laryngeal lesions, the third injuries of the laryngo-tracheal passage itself, whilst the fourth is devoted to the surgical technique which these lesions demand.

The authors consider that as a rule the aphonic cases recover though they may require much time and elaborate treatment; that as regards stammerers, however, it is necessary to make such a statement with reserve, and they emphasise the fact that this latter condition is often an old disability revived.

Excellent anatomical plates are contained in the second part, which most conveniently illustrate the various cases quoted as typifying the injuries to nerves supplying the parts concerned and to contiguous structures, such as the base of the tongue, hypopharynx, and œsophagus.

Similarly the third part is well supported with most clear pictorial and descriptive accounts of the intrinsic injuries which have come into the hands of the writers, who urge that these traumatic atresias do not in any way resemble those following syphilitic and other like ulcerations (as, indeed, no one is likely to dispute), and further state that of twenty-four patients submitted to tracheo-laryngostomy eight are completely healed and the remaining sixteen well on their way to cure—a result on which the authors are most certainly to be congratulated, and which leads them to the statement that the vast majority of such injuries received during war, if submitted to this treatment, should recover respiration through the natural passages and be able even to speak sufficiently well.

In the fourth part thyrotomy, laryngotomy and tracheotomy are all carefully described, leading up to what is probably the portion of greatest interest, viz. the method and technique for the treatment of the different forms of stenosis which constitute the subject of this section. Essentially