stimulus in the strengths I use it, unless, as I have already said, it is too strongly or frequently applied, and then a reactionary discomfort ensues which lasts from a few hours to a day or two.

In conclusion, I should like to say that I do not claim a great deal for this formula, but patients certainly do appreciate some benefit from its use, as they frequently come and ask for another application if they have been without it for some time, and many of them say that they hear better, and, above all, that the "full feeling" in the ears disappears after its use.

The liquid, by the way, may be looked upon as sterile. Liquid paraffin contains no bacterial pabulum and the iodine and essential oils used are antiseptics of known value.

It is wise to warm the liquid before injecting it, but care must be taken not to have it too hot.

Abstracts.

PHARYNX.

Tonsillectomy in Diphtheria Carriers.—C. C. Ballantyne and **B. S. Cornell.** "Brit. Med. Journ.," November 24, 1917.

Persistent treatment of those carriers having failed to eliminate the germ, tonsillectomy was performed. In four of six cases the bacilli were found in the very depths of the crypts, where surface applications could not be expected to reach them.

The authors conclude: (1) That in apparently normal individuals the *Bacillus diphtheriæ* may be harboured in the depths of the tonsillar crypts. (2) That complete enucleation of the tonsils seems to be a successful means for eliminating diphtheria organisms from carriers, although it appears too drastic a measure for routine adoption.

Douglas Guthrie.

Vincent's Angina among the Troops in France.—R. J. C. Douty. "Brit. Med. Journ.," November 24, 1917.

The writer draws attention to a marked increase in the number of cases of Vincent's angina among the troops in France, and notes in particular the possible complications, such as nephritis, endocarditis, gastro-enteritis, etc., which may render it a serious disease. Those complications are more liable to accompany the chronic and severe type, which lasts for several weeks.

The tonsil is the part generally affected in Vincent's agina, though the ulceration may spread to the uvula, soft palate, or pharyngeal wall. In one case seen by the author the uvula was almost entirely destroyed.

Douglas Guthrie.

Tonsillar Infections of the Cavernous Sinus.—Got. "Rev. de Laryng., d'Otol., et de Rhinol.,' July 15, 1917

The usual focus is an infection in the facial region. Otitic cases may occur owing to an infection by the superior or inferior petrosal sinus, without any demonstrable phlebitis of the lateral sinus. Of cases due to a tonsillar infection the authors can find only two, which they describe in

detail. The anatomical routes of infection as described by the author work out as follows: Up to a certain point there is only one route, which then divides so as to provide two alternatives. Thus, the infection travels by the tonsillar plexus to the pterygo-palatine veins, and so to the pterygoid plexus. From here it can travel either: (1) With the blood-stream, through the nasopalatine, nasal, and angular veins to the cavernous sinus; or (2) against the stream (we know that such retrograde phlebitis can occur, as in the lateral sinus) by the veins through the foramina ovale and rotundum, direct to the cavernous sinus.

Treatment.—This is still nearly hopeless. The chief interest, in this monograph, lies in the routes suggested for surgical approach. Briefly these are: (1) *Viâ* the zygomatic and temporal fossæ, and trephining the great sphenoidal wing (as in the Hartley-Krause approach to the Gasserian ganglion, plus a temporary resection of the malar bone, which is turned downwards.—Trans.).

(2) By displacing the eyeball outwards and resecting the inner orbital wall, also the ethmoidal and sphenoidal cells.

Drainage is made from the nose, unless the eye has been destroyed, in which case the sinus is drained by the orbit.

The author prefers the latter route. *H. Lawson Whale.*

NOSE.

Operations on the Nasal Sinuses carried out through a Temporary Opening in the Septum (Trans-septal).—Norman Patterson. "Brit. Med. Journ.," October 20, 1917.

"No one can have failed to remark the excellent display of the opposite side of the nose revealed through a large septal perforation."

Taking advantage of this fact, the author advises the adoption of the trans-septal route in operations on the nasal sinuses. The direct view thus obtained is of greatest advantage in dealing with the ethmoidal cells, but operations on the frontal and sphenoidal sinuses and on the antrum are also facilitated.

The temporary opening in the septum may be made in various ways. Best of all is the preliminary performance of a submucous resection. Ten days later an oblique incision is carried through the united layers of the muco-perichondrium, and the opposite ethmoidal region is then examined and treated with the aid of a long-bladed speculum. The incision through the septum is then sutured, and heals readily without any resulting perforation.

If the operation must be completed at a single sitting, a quadrilateral flap, comprising the whole thickness of the septum, is turned aside, or submucous resection may be performed, followed by incision through the intact side. Careful approximation and suture of the mucous membrane is important. *Douglas Guthrie.*

Head Colds from the Standpoint of the Internist: Their Results and Treatment.—T. F. Reilly (New York). "Amer. Journ. Med. Sci.," May, 1917.

The writer draws attention to the considerable economic loss occasioned by "head colds," and refers to the results of an inquiry instituted by the Boston Board of Commerce, which disclosed the fact that one-half of the population of Boston suffer from a cold during six months of the year,

and that one-fifth of the population are absent from work all of the time as a result, He himself investigated a series of post-operative pneumonias at the Harlem Hospital and found that in every instance the anæsthetist or attending nurse was suffering from an infectious rhinitis. A common sequela of head cold, occurring from the fourth to the eighth day is an attack of muscular pain and soreness, variously denominated lumbago, stiff neck, pleurodynia, or muscular rheumatism, and sometimes nerves, such as the sciatic or brachial, are affected, and a true neuritis follows. Indeed, most cases of so-called muscular rheumatism will be found to follow within a week or two of a head cold. Although quinine is so frequently employed in the treatment of colds, there is no agent which so frequently congests the mucous membrane of the upper air-passages. The writer has never seen any good, and often harm, from its use. *Thomas Guthrie.*

Familial Epistaxis: A Case Report.—H. B. Richardson (Boston). "Amer. Journ. Med. Sci.," July, 1917.

Osler in 1901 described a "family form of recurring epistaxis, associated with multiple teliangiectases of the skin and mucous membranes," and since then a number of instances of the condition have been reported. In the present paper detailed accounts are given of the history and physical examination of two cases of the diseases occurring in father and son. *Thomas Guthrie.*

EAR.

The Technique of Examination of the Static Labyrinth.—Isaac H. Jones and **Lewis Fisher.** "Annals of Otology, etc.," xxvi, p. 1.

An exhaustive paper, dealing with the complete investigation of the static labyrinth. Under spontaneous phenomena, it deals in some detail with nystagmus, vertigo, pointing, falling, turning, to be carried out after noting the physical signs of the organ of hearing, the hearing function, and the fistula test. They then proceed to turning tests, dealing with nystagmus after turning, vertigo after turning, post-pointing after turning, and falling after turning. The caloric and electrical tests follow. The paper contains a special recording chart.

Macleod Yearsley.

Tuberculous Mastoiditis—Radical Operation under Cocaine Anæsthesia. —Harold Hays. "Annals of Otology," xxvi, p. 110.

Man, aged twenty-four. General anæsthesia was avoided in case it should light up quiescent lung trouble. The practical points deduced by the author from the case are: (1) That the radical mastoid operation can be done under local anæsthesia without any pain. (2) That the superficial scalp tissues and periosteum are sensitive, but the bone has absolutely no sensation. (3) That the mucosa of the middle ear is extremely sensitive and must be separately cocainised. (4) That irritation or destruction of the facial nerve is immediately noticeable to the patient. (5) That the after-effects are practically *nil.* (6) That the end result is just as good under local as general anæsthesia.

Macleod Yearsley.

Results in Four Cases of a Modified Radical Operation for Chronic Purulent Otitis Media.—H. B. Blackwell. "Annals of Otology," xxvi, p. 121.

In the first two cases the superior portion of the epitympanic ring of bone was removed; in the last two the ring was left in position. All were cases of chronic running ears. Three are now dry, and in three the hearing has improved. In dressing it is most important to prevent a thick plug of granulations from developing in the attic and antral regions. It is better to remove all plugging at the end of a week.

Macleod Yearsley.

An Analytic Study of the Rinne and other Tuning-fork Tests.—J. W. Downey. "Annals of Otology," xxvi, p. 31.

At the outset it must be noted that the author pays the German Rinne too great a compliment by according him an acute accent and so naturalising him as a Frenchman. The paper is a long one and is a preliminary communication. The first part is thus summarised: (1) By both air and bone conduction it is necessary that we have some index which will indicate the intensity under which a tuning-fork is heard, and the simplest way to attain a factor of this description is by comparing the abnormal duration of perception with the normal duration of perception and taking the difference between the two as the significant indicator. (2) As the energy necessary to make a tuning-fork heard by bone conduction is markedly greater than the energy necessary by air conduction, the normal duration of perception of each is different; therefore, we may not directly compare the one with the other, but we must make separate tests of each course of sound conveyance.

The author considers that by the use of three forks—C 128, C_2 512, and C_5 4096—the useful range of hearing may be covered, and his routine examination is: (1) Usher's test. (2) Schwabach's test for C_2, with one ear cut off by a noise apparatus. (3) The duration of perception for C_2 by air conduction as compared with the normal. (5) The duration of C_5 by air as compared with the normal. All trials are timed with a stop-watch. All these tests are described in particular detail, for which the reader is referred to the original.

Macleod Yearsley.

MISCELLANEOUS.

The Rational Treatment of Stuttering.—Mrs. May Kirk Scripture and **Eugene Jackson.** "The Laryngoscope," February, 1917, p. 74.

The writers remark that probably no human affliction has been more exploited by heartless charlatans than stuttering. Stutterers are taught to speak in an unnatural voice, to use sing-song or very loud tones, and so on. They have been taught to speak beating time with the arm or nodding the head, or to clench the fist on difficult sounds, for the sake of distraction. Such schemes never relieve a stutterer of anything but his money, though, in some of the methods enumerated, there are things of value.

The fundamental aim of the teacher should be to cure the pupil of his pernicious speech habits by showing him the correct habits of speech, which include proper posture, respiration, articulation, phonation, fluency, and thinking. Every pupil should be carefully examined for organic

defects in the organs of speech and for nerve troubles. The personal and family history of every case should be investigated. The actual correction of the speech defect is largely pedagogic, and falls within the realm of the properly trained speech teacher. It requires time and infinite patience on the part of the pupil and teacher.

Posture.—The chest should be held so that the air may be freely inhaled and exhaled, and the head should be at right angles with the body. When sitting the pupil should not slide down in the seat nor bend forward, but sit up straight with his back resting comfortably against the back of the seat. Above all things, the pupil should be perfectly relaxed.

Breathing.—Breathing exercises for stutterers are of two kinds: (1) Deep breathing for increasing the lung capacity, and (2) exercises for breath control in speaking. It does not matter which of the numberless good deep-breathing exercises are used so long as they are properly performed. After the patients have learned the speaking-breath, they should sound a vowel on the outgoing breath, and hold it as long as the breath lasts without straining, etc.

Phonation.—Most stutterers phonate improperly. Their voices lack flexibility, and they speak in a monotonous manner. Singing scales, arpeggios, and songs, exercises in speaking and reading, with special attention to intonation and melody, lead to good results.

Articulation.—Pupils should be taught the exact position of the speech organs for each vowel and consonant. Each sound should be drilled first by itself, then in words, and finally in sentences. The vowel is the most important part of every word, and must be lengthened and strengthened.

Fluency and Thinking.—The stutterer soon learns to read and repeat sentences with smoothness and facility. When, however, he has to speak spontaneously, he quickly reverts to his old habit. This is due to fear that he will not speak correctly. He must therefore be convinced that he can speak properly. At first the stutterer should read and repeat sentences, together with other pupils, and then alone. The next step is the reading of sentences in which words are to be supplied, etc. Then comes the answering of simple questions, and finally, the retelling of stories and argumentation. Exercises in rhythm are most valuable in obtaining fluency of speech, proceeding from rhythm in music to rhythm in poetry.

Results Attainable.—It is not possible to cure every stutterer, but, if properly treated early enough, most cases can be permanently cured, and all cases alleviated. Young children yield easily to treatment, as they have not acquired the mental attitude of the adult stutterer. After progress has been made in the class-room, the teacher should take his pupil out upon the street, and get him to ask "passers-by" or policemen the way to certain places. Under the teacher's supervision the pupil should telephone and order things in stores so that he may acquire the ability to speak properly in all situations. *J. S. Fraser.*

REVIEWS.

Les Blessures du Cerveau. By CHARLES CHATELIN. Second edition. Pp. 198. Masson & Cie. 4 francs.

This book embodies the experience of the neurologists of the famous Salpêtrière Hospital. Most of their clinical material consisted of cases