diathetic conditions the spasmodic coryza was developed. Before, as well as since the appearance of these nervous affections, the patient is attacked every spring, when he goes to the country, by a coryza, lasting five or six weeks, and tormenting him by its violence and the abundance of the nasolachrymal discharge by which it is accompanied.

I have lately seen two sisters belonging to an arthritic family, the elder of whom, aged about 35, consulted me a year ago for a chronic urticaria of five or six years' standing. This I treated very successfully by small doses of arsenic and alkaline baths very slightly impregnated with sulphur. She returned to me this time on account of a coryza which commenced about the first of May, and gave her the more anxiety inasmuch as her mother had suffered during the past thirty years from the same affection. In the mother's case, this returns regularly in May and continues until the last of August. Her grandfather is exempt, but his brother and his brother's son are both subject to the same disease. There is a history of gout in the family, and the patient herself is subject to sick head-aches, and has loaded urine. Her pharynx is studded with large bright red granulations, which extend even into the posterior nasal fossæ.

[To be continued.]

CLINIQUE IN AURAL SURGERY

Of Dr. ADAM POLITZER, University Lecturer in the General Hospital, Vienna.

Observed and reported by C. J. BLAKE, M.D.

THE following cases are worthy of notice, the first from the fact of the patient's retaining an almost normal degree of hearing notwithstanding the existence of a serious lesion, and the second from the success of a new method of treatment, employed to preserve the artificial perforation of the tympanum.

I.—Woman, æt. 20, a patient with tuberculosis, in Oppolzer's ward, Vienna General Hospital. The aural examination was made in this case, not from any symptoms of disease of the ear, but in accordance with the general custom in this clinique. With both ears, the watch was heard at a distance of one foot, and the voice, in a whisper, the length of the ward (about 90 feet). Examination of the tympana showed in each a perforation about $2\frac{1}{2}$ " in length, and situated behind the manubrium mallei; the remainder of the tympanum, with the exception

of a small rim at the periphery, was infiltrated with calcareous deposit. When a child, the patient had severe pain in both ears, followed by a discharge, but no deafness.

Death occurred a few days after this examination, and an autopsy confirmed the observations above described. In the fresh state, the calcareous mass was so firm as to be immovable under a strong pressure, and the deposit had not only impregnated all the layers of the tympanum, but extended above the surface of the mucous membrane into the tympanic cavity, and the malleus was so firmly embedded that no vibration could have been transmitted by it to the other ossicles. The patient was able to hear, and had heard since childhood, inasmuch as the perforation permitted vibrations to pass into the tympanic cavity, and fall directly on the stapes, which was freely movable. The labyrinth was perfectly normal. Had the opening been closed by cicatricial tissue, it would have been necessary to make an artificial perforation in order to permit the passage of vibrations and to give to the patient the degree of hearing, which, as the case stood, she did possess up to the time of her death. The importance of retaining or reproducing a perforation of the tympanum in some, and by no means infrequent diseases of the ear, is illustrated by this as well as by the following case.

II.—On the 22d of October, 1868, Anna P., æt. 48, a native of Vienna, first presented herself at Politzer's clinique. Two years before, according to her account, she was suddenly seized with severe pain in the left ear; the pain lasted for eight days, and was followed by a copious secretion. This also ceased in a few days, but deafness, and the passage of air through the meatus on blowing the nose, continued for some weeks. An application to the meatus, ordered by a physician, did much to diminish the secretion and decidedly improved the hearing; this improvement lasted but about two months, and at the end of that time she began to experience troublesome sensations in the ear, such as loud ringing and rushing sounds.

A marked degree of deafness was observed at the date of admission; this had lasted for a year.

The trouble in the right ear dated from three months before admission; it commenced in the same manner as in the left ear; the pain continued, notwithstanding the appearance of a purulent secretion on the first day, for a period of three weeks.

The secretion and the sensation of a hissing sound in the ear were still present upon admission.

On examination, the left tympanum appeared of a dull-grey color, the short process of the malleus and the folds running outward from it were very sharply marked, and the manubrium mallei drawn inwards and less clearly defined than usual; below the manubrium was a dark and depressed spot of an oval form and about 1" long by $\frac{1}{2}$ " wide, which was recognized as the cicatrix of a previously existing perforation. The ticking of a watch could be heard only when the watch was brought in contact with the ear, or when it was pressed upon the side of the head; and the voice at no greater distance than 3'. After the injection of air into the Eustachian tube by Politzer's method, the cicatrix was seen to have been forced outwards, and the distance at which the voice was heard was increased by one foot, but it was still necessary to bring the watch in contact with the ear. In the right tympanum, situated below and anteriorly to the manubrium mallei, was a circular perforation of the size of a pin's head, through which a drop of thick pus and a few air-bubbles were forced by the employment of Valsalva's method. After removal of the pus, the watch was heard at a distance of 2", and when pressed upon the head in front of the ear; the voice at a distance of 5 feet. The tuning-fork, placed over the sagittal suture, was most clearly heard in the left ear, because the obstructions to the passage of vibrations from without retained those which were communicated to the tympanic cavity through the medium of the bones of the head. The results of the examination showed the existence of purulent catarrh of the tympanic cavity of the right ear, with perforation of the tympanum. The same process had existed in the left ear, but the purulent secretion from the mucous membrane of the tympanic cavity had ceased more than a year previously, and the perforation in the tympanum had been closed by cicatricial tissue. The fact that a decided improvement in hearing followed the injection of air, favored the supposition that the deafness resulted neither from closure of the Eustachian tube nor from a collection of mucus in the tympanic cavity, but from (old) adhesions between the ossicles and the tympanic walls.

The previous history showed that as long as the patient was able to force air outwards through the meatus, that is to say, as long as the perforation existed, the loss

of hearing on this side was but slight, whereas the closure of the opening was followed by decided deafness. These facts justified the conclusion that either the malleus or incus was attached to the wall of the tympanic cavity by firm bands of connective tissue. So long as the perforation in the tympanum existed, the vibrations could pass through it, and, striking upon the base of the stapes, be communicated to the labyrinth. After the closure of the opening, the vibrations impinging upon the tympanum were no long communicated to the stapes, because of the resistance of the malleus and incus. The indication for treatment in this case was the removal of the thin cicatrix in the tympanum, in order that vibrations might be admitted to the tympanic cavity through the perforation.

The excision of a portion of the tympanum in certain cases of disease of the ear, was first recommended by Riolan in the 17th century, but from the doubtful results of the operation very little regard was paid to it by the more celebrated surgeons of the time. The first and most important scientific communications concerning the artificial perforation of the tympanum, date from the beginning of the present century; when Astley Cooper and Himly, simultaneously and independently of each other, re-introduced, and, encouraged by the favorable results at first obtained, strongly recommended it. They became convinced, after long trial, of the difficulty of making the artificial opening a permanent one, and finally abandoned the attempt; but in the meantime their favorable reports having reached the continent, the operation was performed in both France and Germany on hundreds of cases, in almost every one of which, however, the first gain proved to be but temporary, for, sooner or later, the opening became closed by cicatricial tissue.* Pieces of catgut cord, splinters of whalebone, &c., were introduced, and the edges of the perforation touched with caustics, but without favorable result. Bonnafont † in one case introduced a silver canula and allowed it to remain forty-five days, but the closure of the perforation followed its removal. Many instruments have been devised for the purpose of removing a portion of the tympanum. Among the latest are those of Wilde, Toynbee and Gruber, but none of them has succeeded in gaining a

* Schwartz. Studien und Beobachtungen über die Künstl. Perforation des Trommelfells. Archiv für Ohrenheilkunde. 2 Bd.

† Traité théorique et pratique des Maladies de l'oreille. Paris. 1860.

decidedly favorable result. The operation proposed by Menière, of perforating the tympanum by means of caustics, seems to have been equally unsuccessful, and concerning Sphierotomy we have as yet no definite reports of success. The indications for the operation in the present case induced Dr. Politzer to make the attempt of establishing a permanent artificial perforation by means of a new method, and on Oct. 26th he operated, as follows: A large sized aural speculum having been introduced, and the tympanum illuminated by means of a reflector, an incision was made with a paracentesis knife, through the cicatrix parallel to its long diameter, and a "laminaria-stäbchen"* introduced and allowed to remain for two or three hours, by which time it had sufficiently expanded. Its removal showed a circular opening in the tympanum, through which a hard rubber eyelet (œse), having several rims, was pushed into the tympanic cavity to the depth of $\frac{1}{2}$ ". The pain resulting from the operation was very slight. Through the opening of the eyelet the mucous membrane covering the promontorium, of a light reddish yellow color, could be plainly seen, and the patient voluntarily declared, not only that she heard better, but that the sensation of noises in the ear had very much diminished. It having been ascertained that the eyelet was firmly fixed, the edges of the perforation having slipped into one of the grooves between the rims, the hearing power was carefully tested. The watch which it had been necessary before the operation to bring in contact with the ear, was now heard at a distance of 9", and the voice at a distance of 40 feet instead of 3 feet.

On the 10th of February I had opportunity of examining the case above described. The eyelet, which is about the diameter of a common steel knitting-needle, projects two lines or more from the tympanum and rests upon the posterior inferior wall of the meatus; it is closely encircled and firmly held in place by the edges of the perforation. The patient does not notice its presence in the least, and is entirely relieved from the previous unpleasant sensations in the ear. The ticking of a watch is heard at the distance of 14", and words spoken in the ordinary tone of voice throughout the length of Oppolzer's ward, a distance of about 90 feet.

The right ear having been treated with inflation, Politzer's method, and the appli-

cation of pulv. aluminis, the purulent exudation ceased, and the perforation became closed by cicatricial tissue about four weeks since. On examination the cicatrix, 2" in diameter, is readily seen, and the hearing power is normal. In this ear the disease having been treated in season, the ossicles retain their normal relations to each other and to the walls of the tympanic cavity.

FIG. 1.

FIG. 2.

The eyelets (made by Leiter of Vienna) are of hard rubber and from 1" to $1\frac{1}{2}$ " in length; the longitudinal opening is oval in form and about $\frac{1}{2}$ " in its longest diameter. On the outer surface are either one (Fig. 1), or two (Fig. 2) grooves. In the outer end is a small transverse opening for the passage of a silk thread, by which the eyelet can be withdrawn in case of its slipping from the pincette during the operation.

The pincette used in introducing the eyelet terminates in two sharp points, which being inserted in the longitudinal opening and then expanded, give a much firmer hold than if the eyelet were grasped from the outside.

SINGULAR OBSTETRICAL CASE.

By THOMAS W. PERRY, M.D., Providence, R. I.

THE following case occurred in my practice, Sunday, Dec. 13, 1868. At 1, P.M., was called to an Irish woman in labor with her first child. Moderate pains commenced soon after midnight, but became severe by 7 or 8, A.M. These continued increasing in severity until the termination of the labor. The child was born as I entered the room. I separated the cord, and gave the child into the hands of an attendant. There was a laceration of the scalp, extending from near the top of the right ear across the parietal bone and suture to the opposite parietal bone, making a wound four inches in length; there was a fracture of the right parietal bone in a straight line across, one inch in length; the bone was denuded of its periosteum to the extent of about one half the size of a silver half dollar—the whole making a frightful-looking wound. There was also a laceration of the perinæum of the mother, extending down to and back of anus, not rupturing the sphincter ani, but going around and back of the anus, like the half of the letter S. I brought the parts in apposition with four lead sutures, put in deep, tied the knees together, and got a good union.

* Laminaria, a species of Alga, possessing the expansive properties of pressed sponge, and employed for the same purpose.