

eight hours afterwards the plug is taken out, and no more after-plugging is ever required. If the epithelium is not coming on quickly enough, I blow into the cavity dry sterile powdered pig-skin epidermis.

Mr. MARRIAGE (in reply): I have been very interested in hearing the views of different members, but I do not seem to have much to reply to. In the treatment of these cases, as regards the small details of technique, it is largely a matter of what one is used to, but as regards method the question is, Which one will give both patient and surgeon least inconvenience? From that point of view, I think there is no question that primary grafting saves the patient much pain and gets him well quickly, and saves the surgeon much trouble too. In the patient I showed this afternoon, healing occurred in five weeks, and I have only seen her three times since the operation; all the treatment she has had was done by the ordinary dresser at the hospital. That is a big contrast to the cases which we used to treat by plugging, or even with scarlet red; cases then required much more attention than that. In answer to Mr. Tod, one cannot guarantee that the Eustachian tube will be closed, and that there will not be some extension of mucous membrane. But by not scraping the inner wall of the tympanum at all he is much more liable to get trouble than if he had scraped. Still, even grafting will not always close the Eustachian tube, and I have never suggested that grafting will make all cases heal immediately. I think Mr. West is too pessimistic about putting grafts over a bony fistula. I have done many such cases, but up till now I have not had meningitis developing in consequence. I was glad to hear of Mr. Scott's method of transferring the graft; I have not myself tried it. I started with a section lifter, and got accustomed to that, and I do not think there is much difficulty. I was interested to hear from Mr. Scott in conversation that he had had a case of primary grafting of the mastoid which healed up in one week, and another in ten days. I do not profess to equal that, but I see that it can happen, because so often when you take out the first dressing, the whole cavity is practically covered, especially the bony cavity. The chief difficulty is the posterior meatal wall. Mr. Fraser's method, cutting out a crescentic piece, seemed from the description to be more complicated than cutting a straightforward graft. I would rather cut a graft and cover the whole cavity than put in a layer of skin and tuck it away in the manner described. I do not agree with Mr. Stuart-Low, that after grafting you get a contraction of the meatus; one of the advantages of grafting is that you do not get that contraction. Getting the skin to heal over the raw surface, at any rate in the upper part of the meatus, prevents it from contracting up, and I think Mr. Stuart-Low must have been unlucky in the way he cut his flap, or in his cases, if he has had many cases of contraction of the meatus.

Abstracts.

PHARYNX.

Gardiner, H.—Tonsils and Chronic Cervical Adenitis. "Lancet," October 2, 1915, p. 725.

From his own researches in thirty cases the author concluded: that in 80 per cent. of chronic cervical adenitis where no obvious source of infection is present the tonsils are infected. The size of the tonsil makes

no difference to their infectivity, except that the small fibrotic variety is likely to be more dangerous than the large. The number of cases in which tubercle bacilli are present is relatively small, but is larger than in simple cases of enlarged tonsils. The frequent presence of other organisms than the tubercle bacillus in these cases suggests that a large proportion of the so called chronic tuberculous glands are in reality chronic septic glands. The organisms are present in the deepest parts of the gland, and are therefore only removed by operations involving complete enucleation.

Macleod Yearsley.

Viollet, Paul.—Hypertrophy of the Uvula with Multiple Recurring Polypoid Excrescences. "Proceeds. Paris Soc. of Laryngol., Otol., and Rhinol.," December 9, 1911.

On July 12, 1911, a man consulted the writer for throat trouble, which commenced about June 4. There was now an enormously swollen uvula, to the left side of which were attached three polypoid appendages varying in size from a haricot bean to a pea. He complained of general lassitude and extreme fatigue, unaccounted for by his occupation, which was not a tiring one. He constantly had the sensation of a fish-bone in the throat. Deglutition was difficult, and he was continually athirst. July 27: The cautery was applied, penetrating into the uvula and each of the polypoid prolongations. The throat was disinfected by gargling with hot water and phenosalyl twice or thrice daily. The tongue was very furred.

July 31: The uvula had improved in appearance, and the tongue was cleaner; but some excrescences still remained on the uvula, though they had decreased in size. November 13: The formations appearing larger, the galvano-cautery was applied a second time. November 27: The growths were still the size of a green pea. The interest of this case lies in its rarity. He is unable to discover any reference to such a condition in literature, moreover none of his colleagues had seen or heard of anything similar.

H. Clayton Fox.

NOSE.

Thomasson, Wm. J. (Newport, Ky.).—Congenital Bony Occlusion of the Right Choana. "The Laryngoscope," 1915, p. 321.

The patient had a congenital coloboma in the left eye. The left nasal cavity was large, the turbinals hypertrophied, and the septum deflected to the right. The right nasal cavity was narrow, the inferior turbinal absent, and the middle turbinal small and located lower down than normal. The right choana was completely closed by a bony plate which appeared to be an extension of the septum to the outer nasal wall. The patient, who was aged twenty-nine, had never discovered that he did not breathe like other individuals. The right middle turbinal was removed and a submucous resection of the septum performed. The incision in the septum was made well back, and extended from a point high up to the floor of the nose. The tissue was elevated on both sides back to the bony occlusion. The deflected cartilage and bone were now removed. The bony occlusion appeared to be an extension of the vomer. In order to get a flap to cover the floor of the choana he was about to manufacture, Thomasson made a curved incision (convexity upwards) commencing at the floor of the nose on the outer side and finishing at the septum. The semilunar flap was then brought forward and temporarily laid on the floor of the nose. In this way a good view was obtained for the removal of

the bony occlusion by means of the chisel and biting forceps. After a new choana had been made in this way, the flap was turned backwards over the denuded surface and the nose dressed.

J. S. Fraser.

Harmon Smith (New York City).—Blindness incidental to External Ethmoidal Operation. "The Laryngoscope," 1915, p. 216.

The patient had suffered from nasal obstruction and discharge for many years. An external ethmoid operation was performed on the left side by another specialist, the operation being associated with profuse bleeding and trouble with the anæsthetic, so that only one side was completed. When the dressings were removed, it was found that the right eye was markedly proptosed, and the lower lid was so chemotic that it covered the entire eyeball. Shortly after this the patient's sight failed. Harmon Smith first saw the patient a month later, at which time the chemosis of the conjunctiva was still present. There was also ophthalmoplegia externa, and the right pupil was moderately dilated and did not respond to light. The ophthalmoscope showed optic atrophy and a large subhyaloid hæmorrhage; even light perception was absent (report by Dr. Reese). Nasal examination by Harmon Smith showed a large œdematous mass protruding from the left choana. The left inferior turbinal was polypoid. The nasal septum was deflected and united with the left middle turbinal. The right side showed ethmoidal and sphenoidal suppuration with purulent blood-stained discharge. A radiogram showed involvement of both antra and ethmoids, as well as a piece of metal in the ethmoidal region on the left side. Smith thought the condition might be due to sarcoma, but microscopic examination of a piece of the growth showed it to be myxomatous. The polypi were removed at numerous sittings, the sinuses opened and drained, and the septum straightened. During this last operation a large perforation was found high up in the septum, and it was evident that the previous operator had perforated the perpendicular plate of the ethmoid. The metallic substance in the nose proved to be a piece of instrument which had broken off and which subsequently worked its way out of the nose. Harmon Smith suggests that the blindness may have been due to direct injury of the optic nerve, to hæmorrhage from the cavernous sinus, or to pressure due to induration of the tissue surrounding the nerve.

J. S. Fraser.

E. A. R.

Chatellier, M.—Abscess of the Brain: Exhibition of Specimens. "Proceeds. Paris Soc. of Laryngol., Otol., and Rhinol.," December 9, 1911.

The author reported a case of cerebral abscess of otitic origin, in which the autopsy showed a communication with the lateral ventricle. He laid stress upon the usual difficulties of drainage. From the discussion which followed, in which MM. Sieur, G. Laurens, and Veillard took part, the feeling prevailed that the drainage-tube should be dispensed with, for it was considered more harmful than useful.

H. Clayton Fox.

Girard, L.—Peri-Labyrinthine Cells. "Proceeds. Paris Soc. of Laryngol., Otol., and Rhinol.," December 9, 1911.

The author exhibited specimens of dry temporal bones, showing

through the opening of the radical mastoid operation, the cellular tracks which involve the labyrinth and extend as far as the apex of the petrous bone.

They are as follows:

(1) Starting from the base of the tympanum, extending under the labyrinth between the carotid canal in front, the jugular fossa (when it exists), and the aqueduct of the cochlea behind, and ending in the apex, under the internal auditory meatus below and behind it.

(2) Starting from the antero-superior region of the tympanum, passing in front of the cochlea along the carotid canal and Eustachian tube, to end in the apex of the petrosal bone below and in front.

(3) Starting from the inner wall of the aditus, extending around the ampullary branch of the superior semicircular canal, above the internal auditory meatus, and ending in the apex near the superior border of the petrosal bone.

(4) Starting from the antrum, the track extends with the antro-cerebellar canal into the loop of the superior semicircular canal, to end in the same position as the preceding.

(5) Starting from the antrum, it follows the superior border of the petrous bone, extends above the junction of the superior and posterior semicircular canals, and terminates at the same point as the two preceding.

(6) Starting from the antrum, it passes behind the posterior semicircular canal and above the aqueduct of the vestibule, then internal to the junction of the superior and posterior semicircular canals, to end at the same point as the three preceding.

(7) Starting from the inter-sinuso-facial region, passing behind the posterior semicircular canal and under the aqueductus vestibuli, to blend with the sub-labyrinthine tract. Thus one sees that the author has discovered numerous starting points, but only three ended in the petrous bone.

H. Clayton Fox.

Camille, Hubert.—*Elimination en bloc of the Semicircular Canals.*
"Proceeds. Paris Soc. of Laryngol., Otol., and Rhinol."
December 9, 1911.

A girl aged five and a half attended the St. Joseph Hospital on May 13, 1910, for bilateral acute suppurative inflammation of the middle ear and acute inflammation of the mastoid process of the left side. The ears had only recently discharged. The child was in full eruption of scarlet fever, and had a severe diphtheritic sore throat.

The left mastoid was opened the next day. Shortly afterwards the right membrana tympani was extensively perforated, but the right mastoid remained unaffected, and only the handle of the malleus was extruded. On the left side the ossicles necrosed in four or five days; the walls of the operated cavity, particularly the posterior wall of the meatus and tegmen antri were involved in the necrotic process; so much so that the dura mater was extensively exposed, and the radical operation was almost spontaneously performed. At the same time a cervical glandular abscess developed on the left side. A culture from this abscess showed the presence of Klebs-Loeffler bacilli. An injection of anti-diphtheritic serum and incision rapidly cured this supuration. During all this period the child had never at any time exhibited vertigo or any symptoms to draw attention to the labyrinth. Her general health was such that a physical examination was impossible. September 10,

1910: Sequestra continued to form, most of them being eliminated. Finally, the deep wall of the antrum alone remained necrosed. It gradually separated, and on April 10, 1911, a large mass of dead bone was removed with Politzer's forceps. This mass, which represented almost completely the "solid angle" of authors, was made up of the three semicircular canals and a portion of the vestibule. One easily identified the external canal, owing to the fact that the jutting which it makes in the antrum and aditus was well preserved. The canal was open on its inferior surface (which is in relation with the facial nerve) in such a manner that it showed itself on the sequestrum as a semicircular groove.

The superior canal likewise was in the form of a semicircular groove. As to the posterior canal, it was incomplete, its ampulla being absent. On the inferior surface of the sequestrum there was a smooth depression corresponding to the superior wall of the vestibule. No form of complication, not even headache, followed this elimination. The facial nerve had always remained intact. The child is now completely cured on the left side. On the right there is still chronic otitis, which is, however, clearly tending towards recovery.

Labyrinthine tests (nystagmus and acoumetric) showed complete functional abeyance of the semicircular canals and cochlea of the left side. There was a slight diminution of muscular tonus on the same side. In this case the labyrinthitis evolved in an absolutely latent manner, the production of sequestra being, in short, a spontaneous cure. Thus, as is the rule in such cases (Noll, Bezold), elimination of the sequestra has been quite benign. Preservation of the facial nerve when the horizontal canal has been completely extruded is perhaps a rarer matter. Undoubtedly the stylo-mastoid artery supplies a portion of the osseous labyrinth, but it must not be forgotten that the osseous labyrinth shares its vascular supply with the membranous, whilst the facial canal is entirely supplied by the stylo-mastoid artery. This difference in the blood-supply perhaps in a measure explains the resistance of the parts to a necrotic process.

H. Clayton Fox.

Large, Second H.—Gold-Platinum inserted for Adhesive Processes in Middle Ear. "The Laryngoscope," 1915, p. 370.

Male, aged fourteen years, had enlarged tonsils and adenoids. Both drumheads were retracted and showed the signs of "chronic catarrhal otitis media." Left tympanic membrane adherent to inner wall and fixed in its anterior and posterior quadrants. Left ear = conversation voice at 1 ft.; whisper on contact. Operation under ether anaesthesia; two incisions—one in anterior and the other in posterior quadrant; drumhead separated from inner wall with angled knives; arrest of hæmorrhage; piece of platinum and gold foil, $\frac{1}{500}$ in. thick, was inserted—the anterior end protruding through anterior incision. Tonsils and adenoids removed at same sitting. Patient had considerable pain, which lasted thirty-six hours after operation. On second day there was foul discharge (mixed infection). Nurses noted improved hearing immediately following operation. Six weeks later all discharge ceased; left ear = conversation voice at 15 ft.; whisper, 3 ft. [The case would have been more convincing if the effect of the removal of adenoids had been observed for some weeks before the tympanic operation.—Abstractor.]

J. S. Fraser.

MISCELLANEOUS.

Whiteford, C. H.—Complete Branchial Fistula in an Adult. "Lancet," October 9, 1915, p. 818.

In a soldier aged thirty-two. Outer opening at inner edge of right sterno-mastoid, about an inch above the sterno-clavicular joint. A probe passed 5 in. into the pharynx and an injection of methylene blue stained the saliva.

Operation was successful.

MacLeod Yearsley.

Thursfield, Hugh.—Status Lymphaticus. "Brit. Journ. of Children's Diseases," No. 131, vol. xi, November, 1914.

A criticism of the various views held as to the ætiology of this affection and the relationship which may exist between the thymus and other lymphatic structures, and the sudden death by which this affection may first reveal its presence.

From his own experience Thursfield is inclined to doubt the alleged frequency of so-called thymic dyspnoea, and that the other symptoms of this condition may rightly be attributed to pressure. Whilst admitting that our knowledge of this disease is still vague, he is inclined to believe in the deduction arrived at by Klose in the latter's experiments that the thymus is chiefly engaged in hindering the formation of, and in neutralising the excess of acid in the organism, and that the lymphatic state is not merely a disorder of the thymus, but a much more complicated disorder, involving the whole "ductless gland" system; further, that until we obtain a clearer conception of the inter-relations of these glands, we shall not progress in our understanding of this disease.

In the meanwhile our chief endeavour should be in the diagnosis of the disease, and especially in ascertaining if an hypertrophy of the thymus is present in all cases of children who are to undergo operation. The chief sign of such hyperplasia is an increased area of dullness over the *manubrium sterni*. The normal impairment corresponds to a V-shaped area scarcely transgressing the margin of the bone, whilst if the gland be enlarged this area extends for $\frac{1}{2}$ to $\frac{3}{4}$ in. to either side, and merges below with the cardiac dullness.

Other symptoms are unexplained attacks of dyspnoea, a persistently low vitality as evidenced by subnormal temperatures, and intolerance of exertion. The X rays are of value, though the author is of opinion that one cannot by this means distinguish the condition from lymphadenitis in the anterior mediastinum.

Gardner recommends the administration of thyroid extract previous to operation, but the author—though lacking actual experience—would prefer to give an injection of pituitrin just before administering the anæsthetic, so as to obviate the "shock" to which, in a broad sense, he attributes the fatal results met with in the lymphatic state.

J. B. Horgan.