The tube was removed on the fourth day and the mastoid cavity, which looked uncommonly clean, was filled with B.I.P.P.

In forty-eight hours after this patient complained of some headache and he did not look so well.

The B.I.P.P. was removed from the mastoid cavity, and a probe passed into the abscess cavity revealed a small quantity of serous-looking fluid. The cavity was mopped out and a gauze drain introduced. The headache was relieved at once.

Gauze drainage was employed for eight days, and the local and general conditions continued to improve.

Patient asked to be allowed up at end of a fortnight. He was dressed and moving about the ward at the end of *three* weeks.

June 26, 1917.—No discharge from the ear. Epithelialisation nearly complete. Patient returned to his home.

SOCIETIES' PROCEEDINGS.

ROYAL SOCIETY OF MEDICINE—OTOLOGICAL SECTION.

November 17, 1916.

H. J. Marriage, *President of the Section, in the Chair.*

A Further Case of Otosclerosis associated with Otitis Media.—J. S. Fraser—(*continued*).

Case II.

The second case is that of a stone-mason (P. B——, aged forty-one), who fell from a scaffold on November 1, 1910, at 8.30 a.m. The depth of the fall was only 9 ft. The patient was brought to the Royal Infirmary by the police, who stated that when found the patient was conscious, but was bleeding from the right ear and complaining of pain in his right shoulder. Examination on admission showed that the face was pale and the pulse feeble, 92 per minute. There was a flow of blood and cerebro-spinal fluid from the right ear. (Microscopic examination showed fracture of the petrous bone involving the labyrinth and extending from the inner wall of the middle ear to the internal auditory meatus.) The patient was conscious but very deaf. Soon after admission coma supervened and the breathing became stertorous. A little later general convulsions came on, the eyes being turned to the right—*i. e.* conjugate deviation to the side of the labyrinth lesion. Later on squinting was noticed, the right eye looking further to the right than the left one. The right pupil was more dilated than the

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left. The left side of the face and the left arm became paralysed, and the respiration was of the Cheyne-Stokes type. Pulse now 76. Operation by Mr. Cathcart 11 a.m. The right temporal region was exposed and a fissured fracture found running from the anterior part of the wound downwards and backwards. A large extradural clot was exposed by the trephine opening, but the bleeding point could not be located even when the trephine opening was enlarged. The external carotid was therefore ligatured and the bleeding stopped. A drainage tube was inserted into the operation wound in the skull. Saline was



FIG. 15.—Fracture of cranial base with injury of labyrinth capsule. P. B——, male, aged forty-one. Horizontal section through right ear. No. 1.—1. Blood in perilymph space of lateral canal; 2, 7, 6, and 4 show line of fracture. 3. Blood in ampulla of superior canal. 5. Vessels of fossa subarcuata. (× 12.)

injected *per rectum.* At 3 p.m. the respirations numbered 30 per minute and the pulse 128; temperature 100·6° F. The patient gradually got worse and died eight hours after operation.

Post-mortem.—Skull thicker than normal; brain œdematous; internal carotid arteries thickened. There is a considerable amount of clot behind the trephine opening and the brain has not expanded. A fissured fracture is present passing from the parietal bone to the squamous temporal and then along the roof of the tympanum. No laceration of brain. The bleeding came from the middle meningeal

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artery (posterior branch). (Subsequent microscopic examination showed that the fracture must have bifurcated, one limb passing along the roof of the middle-ear cleft and the other passing inwards through the labyrinth.) In preparing the specimen for microscopic examination the outer wall of the middle ear, along with the malleus, incus, and tympanic membrane, became separated as they were already loose. Blood was present in the Eustachian tube, tympanic cavity, mastoid antrum, and cells. The line of the superior canal can be seen

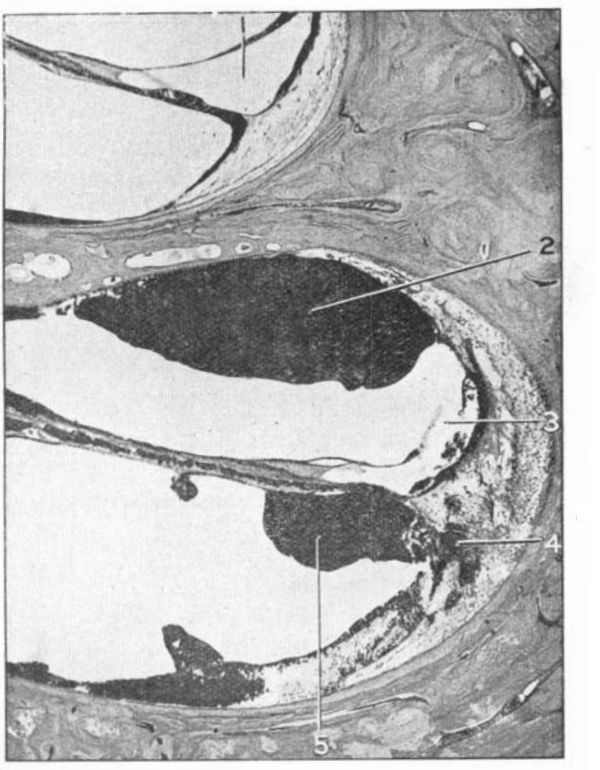


FIG. 16.—Fracture of cranial base with injury to labyrinth capsule. P. B——, male, aged forty-one. Horizontal section through right ear. No. 78.—1. Scala media of middle coil, with slight hæmorrhage. 2. Blood in scala vestibuli of basal coil. 3. Rupture of Reissner's membrane. 4. Blood in spinal ligament. 5. Blood below basilar membrane. (× 30.)

through the bone marked out by the hæmorrhage inside. The right clavicle is fractured and there is blood behind the manubrium sterni. Both lungs showed several gummata.

Microscopic Examination of the Right Ear.

(1) As stated above the outer wall of the middle ear is absent. There is blood in many of the air cells which surround the labyrinth. On the inner wall of the tympanic cavity there is some hæmorrhage present beneath the mucosa. Hæmorrhage is also present in the niche of the round window.

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(2) *Labyrinth Capsule.*—The line of fracture passes through the superior and external canal, downwards through the oval window, involving the stapes and below this through the promontory. The fracture extends inwards and reaches the internal meatus but does not extend to the dura covering the posterior surface of the petrous bone. There is no hæmorrhage along the facial nerve in the aqueduct of Fallopius, although the bony walls of the aqueduct are involved in the fracture. The posterior crus of the stapes is broken. On passing

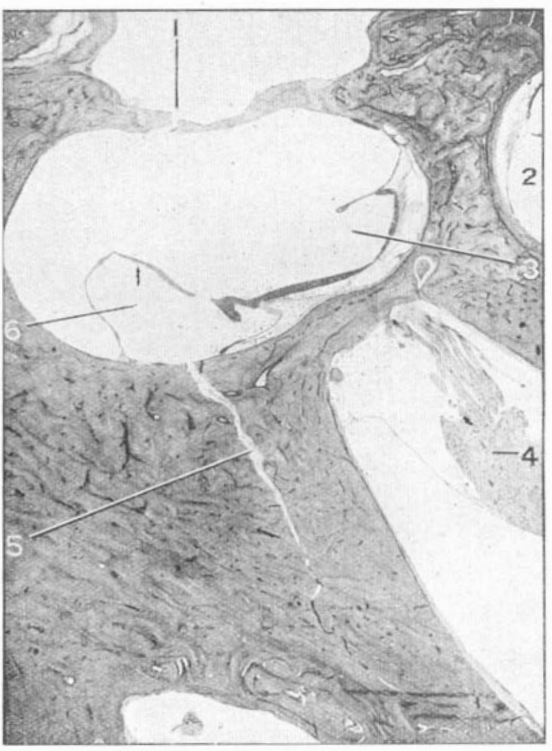


FIG. 17.—Fracture of cranial base with injury to labyrinth capsule. P. B——, male, aged forty-one. Horizontal section through right ear. No. 125.—1. Fracture through stapes. 2. Basal coil of cochlea. 3. Ruptured saccule with hæmorrhage. 4. Vestibular ganglion. 5. Line of fracture. 6. Ruptured utricle. (× 12.)

internally the line of fracture divides—one limb reaching the internal meatus and the canal for the nerve to the ampulla to the posterior canal, while the other limb stops short of the dura of the posterior fossa.

(3) *Labyrinth Contents.*—(*a*) Cochlea: There is marked hæmorrhage in the spiral ligament and in the scala tympani and vestibuli, especially in the basal coil. There is very little blood in the cochlear canal itself. In the middle coil there is no hæmorhage except in the spiral ligament. There are a few small scattered hæmorrhages in the modiolus. The ductus perilymphaticus is free from blood. (*b*) Vesti-

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bule: The utricle and saccule are ruptured and there is blood in both the peri- and endo-lymphatic spaces of the vestibule. The ductus endolymphaticus also contains hæmorrhage. (*c*) Semi-circular canal: Blood is present in the endo-lymphatic and peri-lymph spaces of the superior and external canals. The branch of the vestibular nerve to the cristæ of these canals shows extravasated blood. There is considerable hæmorrhage in the crus commune and in the peri- and endo-lymphatic spaces of the posterior canal.

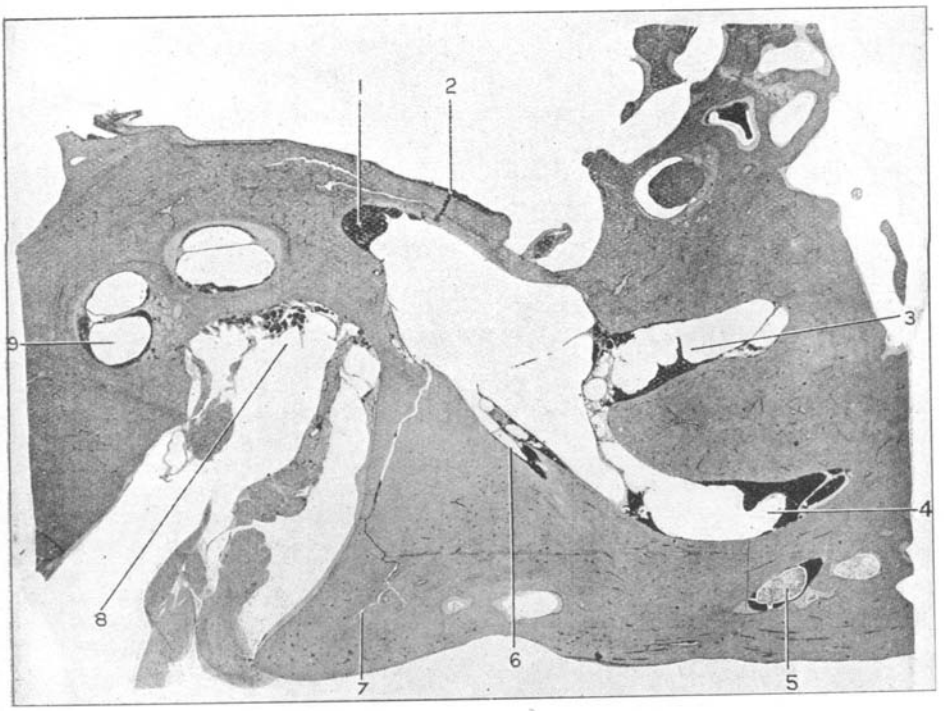


FIG. 18.—Fracture of cranial base with injury to labyrinth capsule. P. B——, male, aged forty-one. Horizontal section through right ear. No. 175.—1. Blood in scala vestibuli where it opens into vestibule. 2. Line of fracture. 3. Opening of smooth end of lateral canal (with hæmorrhage). 4. Opening of smooth end of posterior canal into crus commune (with hæmorrhage). 5. Blood in air cell. 6. Blood in endolymphatic aqueduct. 7. Inner end of fracture. 8. Fundus of internal meatus with hæmorrhage. 9. Basal coil of cochlea with blood in it. (× 8.)

(4) *Internal Meatus and Nerves.*—There is slight hæmorrhage along the vestibular nerve, especially along the branch to the saccule. The branch of the cochlear nerve to the basal coil also shows hæmorrhage. Although the fracture reaches the fundus of the internal meatus there is comparatively little hæmorrhage present in the meatus.

The PRESIDENT: We are very much indebted to Mr. Fraser for these excellent specimens. Those showing the fractured base of the skull are particularly interesting to me. At a general hospital we are constantly seeing cases with fractured base, but usually not until some weeks after the accident, so that one cannot judge of the conditions

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immediately after the fracture; when they come to us, all that can be made out is, that they have complete nerve deafness. It would be interesting to know what is the effect sooner after the accident. For a long time I have tried to get the surgeons to let me know when the patients come in, but I hardly ever have the opportunity of seeing them in a recent stage. Having seen these specimens, I shall make a further effort to see if tests cannot be carried out immediately after the accident, instead of, as at present, weeks or months afterwards, as a collection of specimens with a complete examination of the hearing would be very valuable.

(*To be continued.*)

OBITUARY.

Major William Guthrie Porter, D.S.O., B.Sc., M.B., Ch.B., F.R.C.S.Ed.

It was a cause of great grief to his numerous friends when the news reached them that Major Porter (R.F.A., T.) had been killed in action on June 9 of this year, for he was a man whom all who knew him well loved because of his modesty, tact, and kindness of heart, while they admired his self-reliance and strength of character.

It is given to few to attain eminence in two professions before reaching middle age.

Major Porter was known to readers of this Journal as an ardent and conscientious worker in our specialty. He was the author of an excellent work on "Diseases of the Throat, Nose, and Ear," which was published in 1912, and which showed how thoroughly conversant he was with modern oto-laryngology. In the same year he and Dr. Logan Turner brought out their work on "Skiagraphy of the Accessory Nasal Sinuses." In the revised edition of Allbutt's "System of Medicine" the article on "General Therapeutics of Diseases of the Ear" was from his pen. He also contributed valuable papers on "The Operative Treatment of Laryngeal Tumours," "Submucous Resection of the Nasal Septum," "A Fold sometimes found in front of the Posterior Nasal Opening," and "Nystagmus of the Right Vocal Cord and Soft Palate in a case of Cerebral Disease." It is thus evident that he was not only a hard worker but that he had already added contributions of great value to our literature. He was a most accurate observer and extremely careful about the verification of all his facts. In addition to this his manual dexterity was remarkable. As an operator he undoubtedly excelled, and this was partly due to the fact that he was ambidextrous—a most valuable gift for an oto-laryngologist to possess. Notwithstanding this he was rather inclined to be conservative in that he never resorted to operation until he had absolutely convinced himself that interference was essential in the best interests of the patient.

There can be little doubt that had Porter lived a few years longer in times of peace he would have taken a foremost place among the oto-laryngologists of the world. He was extremely popular both with patients, colleagues, and general practitioners on account of his charming personality, kindliness, and his transparent honesty of thought and action.

Porter was not only a more than excellent specialist, but he was also

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