SINGLE CHANNEL OPERATION.

A short description of what I have called the single channel operation is as follows:

The bone is dealt with as in the ordinary radical mastoid operation. Special attention has to be given to the upper and lower margins of the groove, which results from the removal of the posterior wall of the external auditory canal, for it will form the posterior wall of the new and wider canal, and the slit cartilaginous meatus must be closely applied to this new surface. The bony edges, therefore, must be smoothed off, and a plain walled cavity produced. The posterior superior wall of the cartilaginous canal is then slit throughout its entire length. This may either be done by the scissors or a probe-pointed knife from within outwards, or a sharp-pointed knife may be made to transfix the canal at its outer end, and, guided by a director, placed in the mastoid wound, the knife may be driven inwards till it reaches the middle ear. The mastoid skin wound is then closely stitched, and a careful packing *via* the external auditory canal causes the slit posterior cartilaginous wall to apply itself to the posterior wall of the widened bony canal. A groove of granulation tissue fills up the gap in the slit cartilaginous canal, and the result is a much widened canal through which it is easy to conduct future treatment. This treatment consists almost entirely of careful packing with special absorbent gauzes. Individual granulation masses in canal or middle ear may require special treatment, such as the application of chromic acid. This is very easily done, and indeed the accommodation is so ample for manipulation of this kind that grafting of pieces of skin would be easy *via* this external auditory canal.

The advantages of this method of operation are:

1. All dressings are removed from the side of the head within a fortnight, and the patient may resume work at that date.
2. All treatment is carried on *via* the widened canal, which is so capacious that every part of the healing surface can be easily seen through the speculum, and every nook of it cleaned and packed with absorbent gauze.
3. Complete healing takes place within three months, and two dressings per week are sufficient, as a rule.

A PLASTIC OPERATION FOR THE CLOSURE OF RETRO-AURICULAR POST-OPERATIVE FISTULÆ.

By RICHARD LAKE, F.R.C.S.,

Surgeon to the Royal Ear and Metropolitan Ear and Throat Hospitals.

It occasionally happens after the so-called radical operation for the cure of chronic suppurative disease of the middle ear and mastoid antrum that when healing has been obtained a fistula remains in the site of the operation wound. The cases in which this formation of a fistula follows are those in which the extent of the disease was sufficient to necessitate an unusually free removal of bone. It would probably never occur if Ballance's method were generally adopted; and even when it does occur its importance is only obvious to the friends or relations of the patients—that is to say, the æsthetic effect is the only unsatisfactory one. The case in which the method to be described was adopted to close such a sinus was that of a lad aged 6. He had had his mastoid opened twice previously without obtaining a cure. The case was under the charge of Dr. Hall in the Watford Cottage Hospital. Towards the end of 1899 we did the third operation, and, as far as the discharge went, obtained a cure, but left a retro-auricular sinus. This we proceed to close about eight months after the mastoid operation. The parts were carefully cleansed both outside and inside. Two U-shaped flaps, with the convexities looking backwards, were marked out; one *a, a', a''*, in the groove leading into the sinus, somewhat larger than the hole it was destined to cover, and a second, *b, b', b''*, on the posterior surface of the auricle of the same width as the *a* flap, and cut so as to pare the margin of the sinus (s Fig. 1).

The flaps were then dissected up and the *a* flap was turned forwards on its base, so that its outer or skin surface lay over the sinus; its edges were carefully attached to the edges of the sinus, keeping the skin surface of the flap inwards (Fig. 2).

The *b* flap was drawn directly backwards to fit into the place whence the *a* flap was taken, thus having the thin *a* flap backed by the tissue of the auricle, and consequently quickly and well nourished.

Fig. 1.—A A' auricle. *a a' a''* posterior flap. *b b' b''* anterior flap. *s* sinus.

Fig. 2.—C posterior flap in position.

Fig. 3.—d anterior flap in position.

The case did admirably, and healed, with the exception of two minute points, by first intention. The double flap was devised to obviate any tendency the operation might have to re-establish a discharge from the ear, which it effectually did. In a similar case the flaps might be cut out more rectangular.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

DEATH FROM AN INSECT BITE.

A GIRL, aged 8, was brought to me suffering from a bite of an insect received that day on the right side of the nose, and as I thought very probable, another in the orbit. There was swelling and erythema of the nose, proptosis, and well-marked chemosis suggesting orbital cellulitis. The next day she was much worse, the swelling extending on to the forehead, to the other eye, and down to the neck on the right side. The temperature was 104.4° F., the pulse was over 200, and not palpable at the wrist. There was twitching of the hands and arms, rigidity of the arms and legs, and the muscles of the neck, and photophobia, suggesting meningitis. I sent her to hospital, where she died on the following day from heart failure.

A *post-mortem* examination was performed. A primary focus of infection was found inside the lower lid of the right eye (an ulcer, sting, or bite). There was a few drops of pus in the conjunctiva surrounding. The inflammation had extended back into the orbit, causing orbital cellulitis, and also into the skin of the forehead. Contrary to expectations, there were no signs of meningitis; but in the left lung several recent pyæmic infarcts were found with a pyæmic abscess under the visceral pleura, and some pleural effusion. There was also some serous pericarditis. A cultivation of the blood showed a general septicæmic infection by the staphylococcus pyogenes aureus.

The case was a very remarkable one owing to the rapid onset of septicæmia from a cause which one is accustomed to regard as a trivial accident. The dissemination of the staphylococcus must have taken place very early, as only two days and a half elapsed from the time of the accident to the fatal termination.

Walthamstow.

CHAS. J. MOORE, M.B.R.U.I.

SHOCK CAUSED BY HIGH EXPLOSIVES.

The following case may be of interest as showing the effects of shock caused by high explosives.

On May 25th, 1900, an accidental explosion of dynamite took place in one of the "drives" of the Surprise Mine,