

### A NEW ANTISEPTIC ARTIFICIAL DRUM.

**A**RTIFICIAL drumheads are extremely valuable in certain forms of ear disease, and their great utility has long been recognised. As a general rule the help afforded by mechanical aids is more pronounced in perforation of the drum of the ear than in any other form of aural disorder; it is, however, occasionally serviceable in other forms of injured membrane.

The new artificial drum is represented in Fig. 1. In shape it is exactly like a hat with a very high and tapering crown and a broad and flat brim, having a short ribbon attached to the edge. It is just firm enough in substance to retain its shape

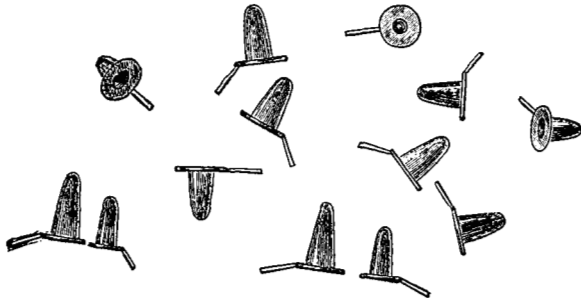


FIG. 1.

in the ear, and yet the material is so soft and flexible that it causes no sensation by its presence. It is stained a delicate fresh colour, and is made in several sizes, to suit the varying capacity of the external meatus. When in position the crown rests near the tympanic membrane, the brim upon the meatal wall, and the little ribbon or handle behind the tragus. The method of manufacture has been worked out by a series of experiments. The material is composed of compressed cotton fibre swollen by prolonged immersion, and saturated in an antiseptic oil and ether. The soft material is then firmly compressed in a little machine that has been designed for the purpose, and afterwards dried by artificial heat.

One marked feature of the new antiseptic membrane is its extreme lightness. The weight varies a little according to the size, and this has a range from one-sixth to one quarter of a grain. It has been often introduced without the patient being



FIG. 2.

aware that anything had been put into the meatus. Another special quality consists in the facility

with which it can be introduced and removed by the patient himself. The little instrument for the self-application of the artificial membrane is depicted in Fig. 2. The probe end is inserted in the crown of the little hat, and in this way it can be accurately placed in the meatus, and then detached from the instrument by the aid of the sliding collar. Patients very soon get into the way of adjusting it, and slipping it into position with just the right amount of pressure for securing the best result. The forceps is intended to be used for the removal of the artificial membrane, and in doing this patients are guided by their tactile sensibility. Traction is made upon the handle, which ought always to be easily found resting behind the tragus.

It is a matter of great practical importance in every case that the artificial membrane should be selected to suit the shape and capacity of the external ear. It is the inventor's practice to

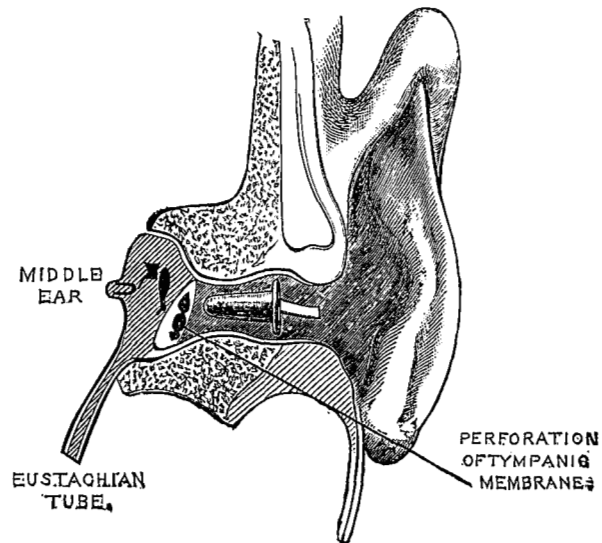


FIG. 3.

regulate the height of the crown by the sensations of the patient, and the breadth of the brim by the size of the meatus. It must not fit too tightly, but simply rest in contact with the meatal wall, so that after it has been put into the right position it does not get easily misplaced.

Fig. 3 presents a diagrammatic section of the ear, showing the usual position of the artificial drumhead. It is not necessary to place the crown upon the perforation, or in contact with the remnants of the tympanic membrane. The surgeon cannot select the point of contact by any internal scrutiny of the organ, but in every case he must be guided by the sensations of the patient and the improvement produced in the hearing power.

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