NEW INSTRUMENTS.

A PROBE-CHISEL FOR THE EAR.

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The accompanying illustration presents a new instrument which I have devised for bone operations in the ear. It consists of a stout handle supporting a shaft, terminating in a right-angled flange (*b c*) at the cutting end, and carrying a chisel (*a*) with a horizontal cutting edge.

Probe-Chisel, one-half natural size.

The shaft or probe (*b*) is 9.7 cm. long, the perpendicular flange (*c*) measures 0.4 cm. In the upper surface of the shaft (*b*) an angular groove is cut; corresponding with this the under surface of the chisel is shaped to fit into this groove, thus preventing any upward or lateral motion of the chisel when operating. Attached to the chisel is a small stop (*d*), so adjusted that the cutting edge of the chisel may have full play, and when driven home just touches the upright flange (*c*). The chisel is 11.7 cm. long, the cutting-

edge considerably bevelled, so that the chiseled portion of bone remains in the triangular space formed by the bevel-edge and the flange-stop.

The first instrument which I constructed consisted simply of two planes gliding over each other, the upper one being the chisel. The chisel was held in place by two bands. The tongue-and-groove principle has been recently added, and is largely responsible for the perfect execution of the instrument.

I have tried the probe-chisel on a series of cadavers; its mechanism is rapid and safe, and there is no danger of splintering the bone.

Dr. Schmiegelow has been pleased to try it, and after frequent use in operative work, has expressed his thorough satisfaction with the instrument.

The instrument is especially adapted for removing the outer wall of the atticus tympanicus and to expose the aditus ad antrum, which is so frequently involved in caries of the ossicles.

The danger of injuring the facial nerve, which by its course over and behind the foramen ovale, and separated from the aditus ad antrum only by a bony partition as thin as paper, is so greatly exposed, is avoided by the perpendicular flange (*c*) which forms the supporting buffer for the chisel.

A Laryngendoscopic Mirror—MERMOD—*Revue Hebd. de Laryng., d'Otol. et de Rhin.*, May 21, 1898.

The ordinary method of laryngoscopy gives only an incomplete image of the reality. In order to complete the laryngoscope, the author has added a second mirror, which is introduced into the interior of the larynx, an instrument which he calls the "laryngendoscope."

By the assistance of this instrument, the author has seen pathologic conditions which could not be observed by the usual method.

(The idea of examining the larynx by means of two mirrors is not a new one, but it is only in rare cases that it is feasible.—ED.)

SCHEPPEGRELL.