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**A NEW TONGUE-DEPRESSOR AND AN EAR
SCREW FOR THE REMOVAL OF
FOREIGN BODIES.**

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I. A NEW TONGUE DEPRESSOR.

CONSIDERING the unsatisfactory character of the many tongue-depressors in use, and the necessity for one that would combine all requirements and at the same time be cleanly, I devised such an instrument in 1875, the illustration of which is here given. It consists of a solid, smooth piece of German silver, 21.5 cm. long, 3 cm. wide, and 1.5 mm. thick. The handle is 11 cm. and the tongue-support 3.5 cm. long, the two being connected by a band 7 mm. wide and 7 cm. in length. At the extremity of the spoon the metal is bent downward at an angle of about 135° . Usually the spoon-end is so fixed as to form an angle of 115° with the handle. This angle can be readily varied if necessary, as the connecting band bends easily.

The advantages possessed by this instrument over others are: its simplicity, in that it has no joints; its smooth, polished surface making it impossible for dirt and septic matter to collect; its light weight; the quickness and ease with which it can be cleansed, as it can be either burned or boiled in a moment, and every part



be reached; its small size; the fact that when in use it does not rest upon the teeth or lips of the patient, but gives its main support to the tongue at its extremity; the angle of the spoon—usually no other part of the spoon exerting any pressure—and it can be used in cases wherein almost any other instrument occasions either a tendency to retching or involuntary closing of the jaws.

For rapid and careful work I have, as yet, not seen an instrument that pleases me so well. The only objection to it is the space it occupies in one's satchel. This is, however, obviated by straightening the instrument before packing and bending into shape again before using it. I have never seen a jointed tongue-depressor that could be called clean. Many depressors are made with fenestræ, which are often a disadvantage in that they allow part of the tongue to protrude, and at the same time serve as receptacles for the collection of various impurities.

Rubber depressors become discolored, and consequently look unclean, and to look so is often as great an objection as to be unclean. The metal depressor of Cohen, unjointed and made of a single piece of metal, I consider a most valuable instrument, but I find by practical experience that the bending of the tip of the tongue-end and the narrowing of all that part of the instrument between the handle and tongue in my depressor, as well as the spoon-angle, are very important items. Again, being made of German silver, it is better than either a nickel-plate, steel, or brass instrument, the nickel flaking off in the first; and it is better than silver in that it is more firm and rigid than an equal weight of that metal, while it is not acted upon by chemicals so readily. At the same time—not a minor consideration—the cost is decidedly less.

The instrument has, so far as I know, been used in this country to but a limited extent. In Europe, and especially in Geneva, Vienna, and Milan it is more gen-

FIG. 1.



A new tongue-depressor.

FIG. 2.



A new instrument for the removal of foreign bodies from the ear.

erally in use, having been brought to the attention of the profession there by my brother, the late Dr. B. Frank Lautenbach, while Assistant Professor of Physiology under Professor M. Schiff, at the University of Geneva, Switzerland.

2. A NEW INSTRUMENT FOR THE REMOVAL OF FOREIGN BODIES FROM THE EAR.

In the course of treatment of an old case of necrosis of the middle ear, with two sinuses leading back of the auricle, there was, as a resultant of the long-continued inflammation and consequent acrid discharge, a very marked constriction of the external meatus. Within this constriction could be discerned polypi and masses of granulation-tissue. Upon removing as much as possible of these growths the diameter of the meatus was increased, but not sufficiently to thoroughly explore the middle ear, or enough to allow of the removal of all the overgrowth of fibro-mucous tissue. In order to make a more thorough exploration of the middle ear I resorted to the use of laminaria tents, and, later, of elm tents, to temporarily enlarge the meatus. On one occasion, when I was about to remove an elm tent with the angular forceps, the patient gave his head a sudden twist and the tent disappeared in the middle-ear cavity (the membrana tympani and the chain of bones, of course, being absent), and despite the use of tents in the meatus, sufficient space for its removal could not be obtained.

After the trial of various expedients, including the galvano-cautery, with the view of destroying the tent, or as much of it as possible, I at last devised (May 29, 1893) an ear-screw, of which the actual size is represented in the illustration. It will be observed that the screw is a double-headed one, that is, a two-threaded screw; the pitch is considerable, and the threads present an angle forward; the posterior surface of each

thread is at right angles to the shaft. The screw and shaft are of hardened steel, the handle round and of ivory, allowing of easy revolution.

The slightest twist of the screw sends its two points into any substance ordinarily soft, such as wood or any vegetable structure. On account of its high pitch the screw travels rapidly inward. After it has made its way into any substance it will not slip out, but will, when traction is exerted, either bring with it whatever is attached to it, or tear out as much as the diameter of its threads, in consequence of the posterior surface of the thread being at right angles to its shaft.

Upon using this instrument I was at first successful in tearing out only pieces of the tent, but after a sitting or two had the satisfaction of finding my screw firmly fixed in the swollen tent, and by gentle and persistent traction with a swinging motion, and enlarging of the meatus by an incision, succeeded in accomplishing its removal.

The instrument having been devised, it is surprising how often it proves of use. By means of it I have since removed two beans and a shoe-button from the middle-ear cavity and a piece of wood and a shoe-button from the nasal chambers.

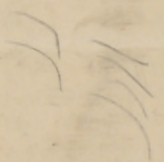
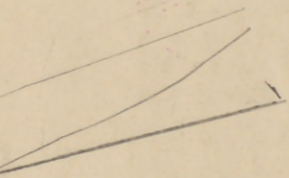
For the removal of non-metallic foreign bodies from the middle ear I think it the most convenient and safest—in fact, with the exception of the forceps and syringe, the only instrument to be used. Before it is to be used the syringe will probably be employed, and this failing, then the screw may be tried. The forceps, on account of the room it takes in an already crowded space, is to be employed but rarely, often complicating the case by forcing the foreign body into a more inaccessible position than the original one.

For foreign bodies in the meatus, the syringe failing, the screw is to be used when the nature of the foreign substance admits of it: the forceps, in cases to which

the screw is not adapted, and to a few cases in which we can be sure of its removal without incurring any danger to the membrane or the middle ear.

Both instruments have been very carefully made for me by Lentz & Sons, of Philadelphia, and my thanks are here given to them for the careful carrying out of my instructions.

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