Sept. 20, 1949. C. R. LANAHAN 2,482,116

TONGUE DEPRESSOR

Filed Jan. 7, 1948

Fig.2.

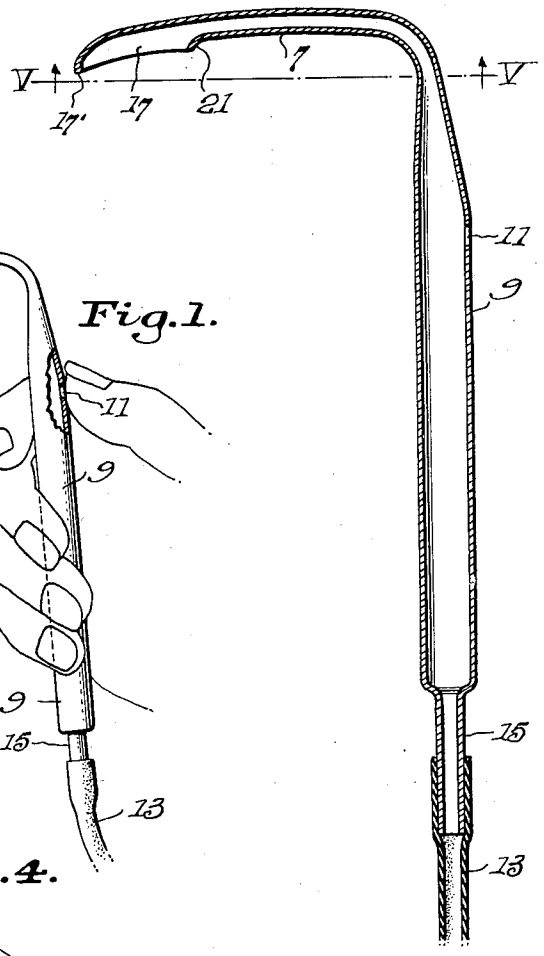


Fig.1.

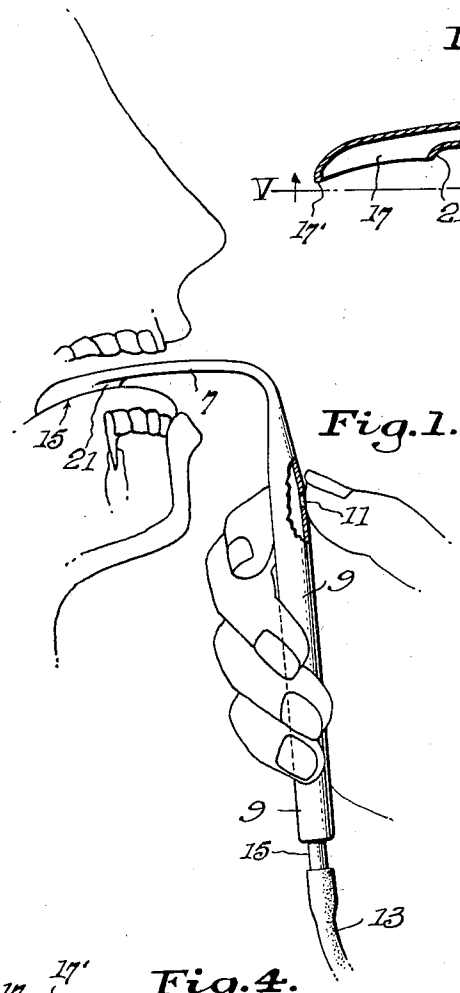


Fig.3.

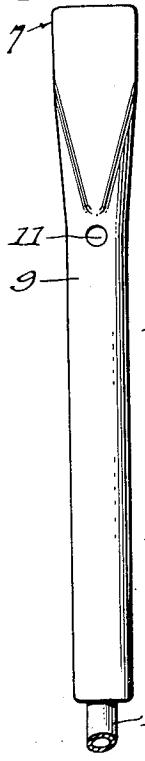


Fig.4.

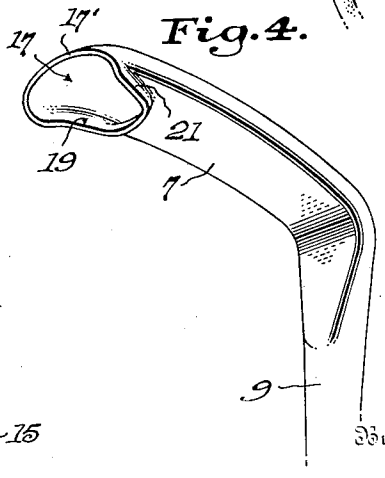
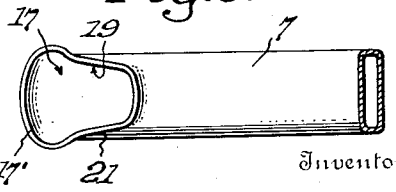


Fig.5.



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TONGUE DEPRESSOR

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Application January 7, 1948, Serial No. 973

1 Claim. (Cl. 128—15)

(Granted under the act of March 3, 1883, as amended April 30, 1928; 370 O. G. 757)

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The invention described herein may be manufactured and used by or for the Government for governmental purposes, without payment to me of any royalty thereon.

In ear, nose, and throat surgery, considerable difficulty may be experienced in retaining the tongue in position so that it will not form a pharyngeal obstruction during the course of the surgery. The usual type of tongue depressors do not obviate this danger, which is particularly serious where the patients are children. When such obstruction occurs, as when the patient "swallows" his tongue, only very prompt action on the part of the surgeon will obviate suffocation. The obstruction is due largely to the complete relaxation of the oral and throat muscles from anaesthesia.

The usual type of tongue depressors is essentially only a flat spatula, which may be provided with a handle for facilitating manipulation thereof, but which does not enable an operator to manipulate the tongue to any essential extent, with the aforesaid danger of obstruction resulting.

The present invention provides an improved tongue depressor which obviates the above-mentioned danger, and which permits the tongue to be lifted forwardly and maintained thus during the course of the surgery, or manipulated otherwise for maintaining the tongue in desired unobstructing position, the improved depressor of this invention providing a completely open airway during tonsillectomies and adenoidectomies and other surgeries of the mouth, nose, and throat.

Generally speaking, the tongue depressor of the present invention comprises a flat, hollow spatula portion for application to the tongue, the spatula portion communicating with a tubular handle, and having a relatively large aperture and the handle being adapted to be connected to a source of suction, whereby suction may be applied to the tongue to hold the tongue against the depressor. An aperture is provided in the handle for regulating the amount of suction by closing and opening the aperture by application of the operator's thumb.

The invention will be understood more readily by reference to the accompanying drawings wherein—

Fig. 1 is a side elevation, partially in section, showing the improved depressor in use;

Fig. 2 is an axial sectional elevation of the improved tongue depressor of this invention;

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Fig. 3 is a front elevation of the improved depressor;

Fig. 4 is a fragmentary perspective view showing the suction means for the tongue;

Fig. 5 is a transverse sectional view taken on the line V—V of Fig. 2, looking in the direction of the arrows.

Referring more particularly to the drawings, the improved tongue depressor of the present invention is composed of a substantially flat, hollow, tongue-engaging portion 7 opening into a tubular handle 9 that is provided at a convenient location with an opening 11 for controlling suction applied to the depressor through tube 13 attached to end 15 of the handle 9, the source of suction to which the tube 13 is attached being not shown.

The tongue-engaging portion 7 is provided with an enlarged aperture 17 adjacent to its outer end, which is adapted to be inserted in the mouth of the patient. The aperture 17 is enlarged at its inner tongue-engaging portion 17' which engages the back part of the tongue, and tapers as shown at 19 to conform generally to the configuration of the tongue. A sealing flange 21 surrounds the aperture 17, so that when suction is applied through handle 9, the area of the tongue enclosed by the aperture 17 will be sucked up into the opening, the flange 21 sealing the contact between the tongue and depressor portion 7. The depressor portion 7 thereby forms a suction cup for enabling manipulation and retention of the tongue in any desired position. The opening 11 is provided at a convenient location for the operator to hold the instrument while controlling the opening 11 with his thumb for regulating the amount of suction applied to the tongue. It will be observed also that the tongue-engaging depressor portion 7 and the handle 9 are at approximately right angles for facilitating the manipulation of the instrument. It will be apparent that, with the proper degree of suction, the tongue is brought into intimate and sealed engagement with the depressor portion of the instrument, and, consequently, the tongue can be held firmly in any desired position, without any tendency to drop back to form a pharyngeal obstruction with attendant danger of suffocation to the patient.

Any suitable source of suction may be utilized; for example, if no other source of suction is available, a spring-actuated plunger and a suitable valve can be installed in the handle 9 in an obvious manner that requires no illustration.

It will be apparent from the foregoing that

the implement of the present invention may be varied in structural details without departing from the inventive concept; and accordingly it will be understood that it is intended and desired to embrace within the scope of this invention such modifications and changes that may be required to adapt it to varying conditions and uses, as defined by the appended claim.

What is claimed is:

A suction tongue depressor for use in oral and nasal surgery, which comprises a substantially flat tubular tongue-depressor portion, a tubular handle portion disposed at approximately right angles to the tongue-depressor portion for ready application of the tongue-depressor portion to a tongue to be manipulated, the depressor portion and handle portion having a continuous air passage therethrough, the depressor portion being provided with an inwardly directed and expanded tongue-engaging end provided with a suction opening substantially coextensive with the area of the expanded tongue-engaging end for engaging a substantial area of the tongue, the said suction opening being on the underside of

the tongue-depressor portion, means for connecting the handle portion to a source of suction, a sealing flange surrounding the opening to prevent entry of air between the opening and the tongue responsively to application of suction to the opening, and means in the handle portion for enabling control of the amount of suction at the suction opening, the suction opening defining a suction cup for retaining the tongue against the depressor portion for enabling manipulation and holding of the tongue in any desired position.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
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