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TONGUE DEPRESSOR

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FIG. 1.

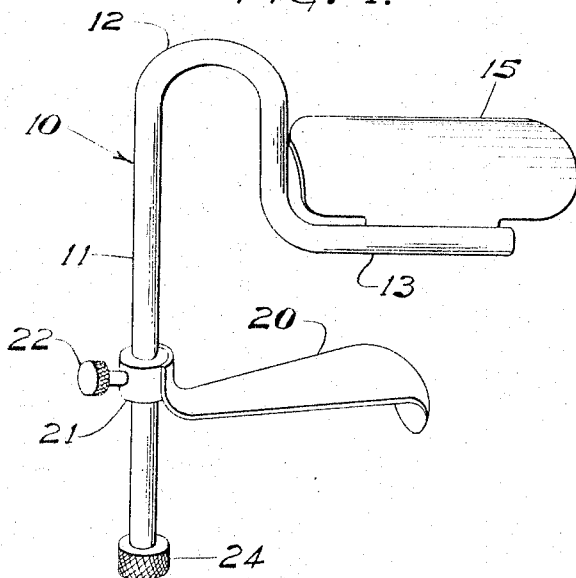
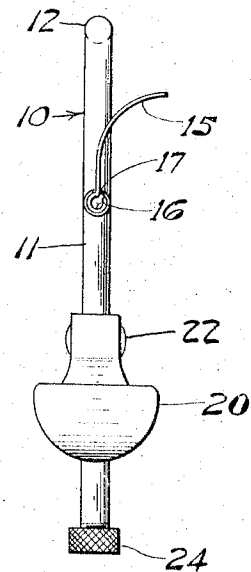


FIG. 2.



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TONGUE DEPRESSOR

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3 Claims. (Cl. 128-15)

This invention relates to a dental appliance and more particularly to a tongue depressor for use by dentists to facilitate working in the lateral portions of oral cavities.

Tongue depressors for holding a patient's tongue in a depressed or a laterally displaced position while dental work is being performed have previously been proposed and provided. The present invention provides a novel tongue depressor which constitutes a significant improvement over prior art devices of this general character, more particularly in the ease and facility with which the appliance is introduced and secured in position and by reason of the fact that a simple tongue depressor structure is provided which may be employed as either a right-hand or a left-hand tongue deflector by simple adjustment or repositioning of one of the parts.

Furthermore, the construction of the tongue depressor of the present invention is such that both vertical and lateral adjustments are retained by a single thumb screw and adjusting operation is such that the dentist may effect either vertical or lateral adjustment of the parts or a combination of both by virtually a one hand operation.

In addition to the above, the tongue depressor of the present invention is such that its fabrication requires a minimum number of parts; the parts are relatively smooth and rounded so that the employment of the device gives a maximum of comfort to the patient; and, because of the simplicity of construction, the problem of sterilization and maintaining the appliance in sterile condition is greatly facilitated. Also, complete disassembly of the parts is readily effected, thus further facilitating convenient and thorough sterilization.

Other objects and advantages of the tongue depressor of the present invention will become apparent to those skilled in the art from a consideration of the embodiments illustrated and described by way of example in the following specification.

While a single specific embodiment of the principles of the present invention is illustrated in the accompanying drawing and described in detail in the following specification, it is to be understood that such embodiment is by way of example only and that various mechanical modifications may be made without departing from the spirit of the invention, the scope of which is limited only as defined in the appended claims.

In the drawings:

FIG. 1 is a general perspective view of one form of the tongue depressor of the present invention; and

FIG. 2 is a fragmentary elevational view taken from the inner side of the device with respect to its position of application to the patient's mouth.

In the drawings like characters of reference denote like parts and the numeral 10 designates generally a rod-like support or frame member which may conveniently comprise a metal tube which is bent or otherwise formed to provide an external upright portion 11 terminating at its upper end in an inverted U-shaped portion 12, one leg of which is deflected to form a generally horizontal terminal portion 13 which is adapted to be disposed in the patient's mouth within the lower dental arch. Disposition of the portion 13 in this position in the patient's mouth is facilitated by the U-shaped portion 12 which extends freely over the front portion of the lower dental arch and the lower lip of the patient, so that the portion 13 may be disposed generally at the bottom of the space within the lower dental arch of the patient.

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The member which directly engages the tongue of the patient and holds it to one side to permit free and clear access to a lateral portion of the oral cavity for working upon either the upper or lower dental arch is designated 15 and comprises a plate member which curves upwardly and inwardly to hold the tongue to one side and somewhat downwardly. The corners of the member 15 are preferably rounded as shown and member 15 is provided along its lower edge with a longitudinal enlargement which in the present instance is in the form of a curl 16 which forms a cylindrical enlargement of a size adapted to fit slidably within the tubular formation comprising the horizontal extension 13 of frame 10.

Extension 13 is longitudinally slotted along its upper edge as at 17 so that mere endwise intersliding assembly of the curl formation 16 of member 15 within portion 13 of frame 10 securely positions plate 15 in the desired attitude. An important feature of the tongue depressor of the present invention resides in the fact that the foregoing mode of constructing and assembling the plate member 15 with respect to the extension 12 of frame 10 and the end to end symmetry of the plate member renders the same fully and freely reversible for left or right-hand use.

As illustrated in the drawings the plate member 15 is positioned for use in working in the right-hand portion of the patient's mouth and is thus arranged to hold the tongue downwardly and to the left in the patient's mouth. If the left-hand side of the patient's mouth is the area which is to be worked upon the plate member 15 is merely reversed end for end, it being constructed fully symmetrically for that purpose.

Reference will now be had to positioning clamp means for retaining the tongue depressor plate 15 in desired lateral position in the patient's mouth in a readily adjustable fashion. A plate member 20 which is bent lengthwise to form a shallow S curve is attached at one end to a collar 21 which is rotatable and slidable on the upright portion 11 of frame member 10.

A single thumb screw 22 serves to retain the collar 21 in a desired angular and elevational position on portion 11 of frame 10 and thus the vertical distance between horizontal extension 13 and clamp plate 20 and the relative angular positions of these members about the axis of portion 11 of frame 10 is readily selected and is fixed by a single tightening operation of thumb screw 22. With extension 13 disposed in the patient's mouth and the plate member 20 engaging beneath the patient's chin a light but secure clamping force is provided for retaining the device in position.

Since plate 20 is normally and naturally disposed centrally beneath the chin of the patient, the position of angular adjustment of collar 21 determines the relative lateral position of the depressor plate 15 in the patient's mouth. Plate member 20 may be fixed to collar 21 by brazing, silver soldering or welding and the assembly comprising plate 20 and collar 21 is normally retained against endwise removal from portion 11 of frame 10 by a thumb nut 24 at the lower end of portion 11. Complete assembly of the device may readily be effected by removal of nut 24.

I claim:

1. In a dental tongue depressor, frame means comprising an elongated rod-like member having an inverted U-shaped medial portion, one leg of said U-shaped portion depending therefrom to extend externally below the chin of a patient, the lower end of the other leg terminating in a tubular portion extending generally horizontally away from said one leg and adapted to be disposed in the patient's mouth, a slot along the upper surface of said horizontally extending tubular frame portion, a gen-

erally upright concavo-convex plate having an enlargement along its lower edge wider than said slot, said slot extending to the end of said tubular portion for introducing said plate lengthwise therein, said plate member engaging in assembled endwise relation with said frame portion by movement of said enlargement into said tubular portion with said plate member held upright by said slot, said plate member being reversible with respect to said tubular portion to present the concave surface thereof toward either side of the patient's mouth, a generally horizontal plate member and means engaging the same with said depending leg of said frame member for relative angular adjustment about the axis of said leg and for adjustment lengthwise thereof, and a single adjustment-locking means for securing the horizontal plate and depending leg in fixed relative positions both angularly and lengthwise of said leg, said extending lower portion of said other leg and said horizontal plate being relatively positionable to clamp the depressor to the lower jaw of the patient.

2. In a dental tongue depressor, frame means comprising an elongated rod-like member having an inverted U-shaped medial portion, one leg of said U-shaped portion depending therefrom to extend externally below the chin of a patient, the lower end of the other leg terminating in a tubular portion extending generally horizontally away from said one leg and adapted to be disposed in the patient's mouth, a slot along the upper surface of said horizontally extending tubular frame portion, a generally upright concavo-convex plate having an enlargement along its lower edge wider than said slot, said slot extending to the end of said tubular portion for introducing said plate lengthwise therein, said plate member engaging in assembled endwise relation with said frame portion by movement of said enlargement into said tubular portion with said plate member held upright by said slot, said plate member being reversible with respect to said tubular portion to present the concave surface thereof toward either side of the patient's mouth, a generally horizontal plate member and means engaging the same with said depending leg of said frame member for

relative adjustment lengthwise thereof to clamp the depressor to the lower jaw of the patient.

3. In a dental tongue depressor, frame means comprising a generally rod-like member having an inverted U-shaped medial portion having one leg thereof depending therefrom to extend externally below the chin of a patient and the lower portion of the other leg thereof extending away from said one leg and adapted to be disposed in the patient's mouth, said extending lower portion of said other leg having a channel formed lengthwise therein and extending to the end thereof, a generally upright concavo-convex plate having an enlargement along its lower edge, said enlargement engaging in said channel by relative longitudinal sliding movement to support said plate for holding a patient's tongue away from a side of the patient's mouth, said plate being symmetrical fore and aft whereby it is reversible with respect to said lower leg portion to present the concave surface thereof toward either side of the patient's mouth, a generally horizontal plate member and means engaging the same with said depending leg of said frame member for relative angular adjustment about the axis of said leg and for adjustment lengthwise thereof, and a single adjustment locking means for securing the horizontal plate and depending leg in fixed relative positions both angularly and lengthwise, said extending lower leg portion and said horizontal plate being relatively positionable to clamp the depressor to the lower jaw of the patient.

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