F. B. EGGLER.

DENTAL APPARATUS.

APPLICATION FILED AUG. 15, 1910.

1,068,870.

Patented July 29, 1913

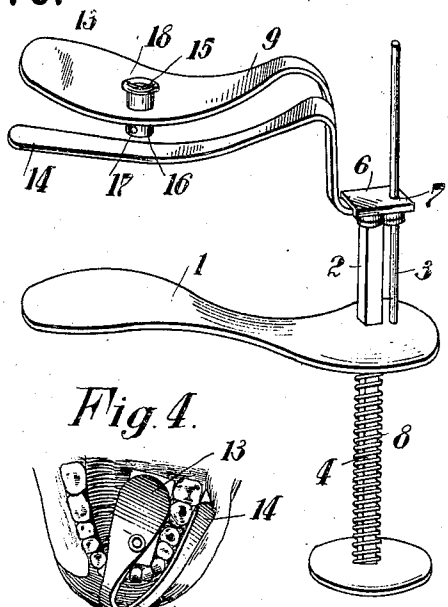


Fig. 1.

Fig. 4.

Fig. 5.

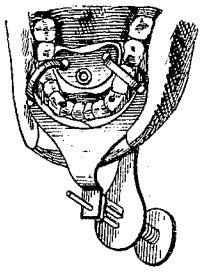


Fig. 2.

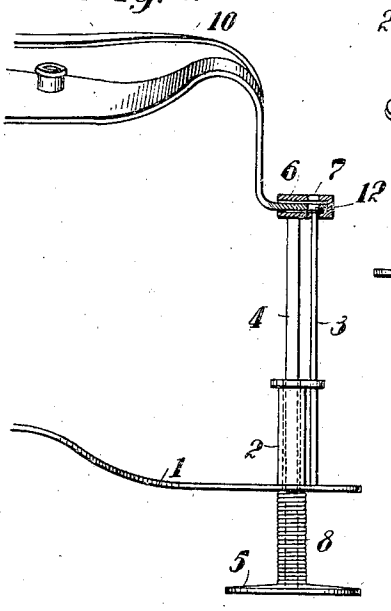
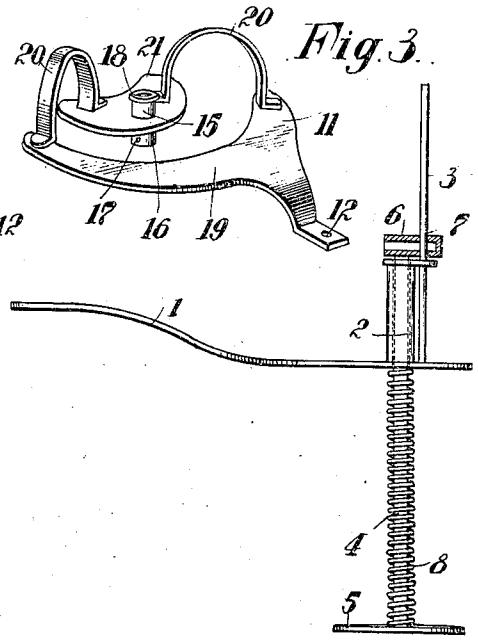


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE

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DENTAL APPARATUS.

1,068,870. Specification of Letters Patent. Patented July 29, 1913.

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To all whom it may concern:

Be it known that I, FREDERIC B. EGGLER, a citizen of the United States of America, and resident at Göppingen, Germany, have invented new and useful Improvements in Dental Apparatus.

This invention relates to dental apparatus, and has for its object to provide an apparatus which will hold down the tongue and hold the cheeks and lips away from the teeth and will at the same time hold in position rolls of cotton wool or analogous materials, which are introduced into the mouth.

In the accompanying drawings: Figure 1 is a perspective view of the apparatus with a tongue holder and a left cheek and lip displacer. Fig. 2 is a side elevation, partly in section, of an apparatus similar to what is shown in Fig. 1, except that in connection with the tongue holder a right cheek and lip displacer is shown. Fig. 3 is a side elevation, partly in section, of the apparatus with a modified form of tongue holder and lip displacer, which latter is shown in perspective. Fig. 4 is a perspective view of the apparatus, shown in Fig. 2, applied. Fig. 5 is a perspective view of the apparatus, illustrated in Fig. 3, applied.

Referring to the drawings, which illustrate an embodiment of my dental apparatus, 1 designates a chin rest provided with a sleeve 2 and a locking rod 3, which latter is parallel with said sleeve. The chin rest 1, and the sleeve 2 are slidably mounted on a standard 4, which is fixed at its lower end to a base or plate 5. Mounted on the upper end of the standard is a flattened socket or holder 6 provided with an aperture 7 adapted to receive the locking rod 3. On the standard 4 between the chin rest 1 and the base 5 is mounted a spiral spring 8, which forces the chin rest together with its sleeve 2 toward the socket 6. Mounted on top of the sleeve 2 and adapted to abut the underside of the socket 6, is fixed a plate 2^a through which the locking rod 3 passes and receives support. The spiral spring 8 may, if desired, be arranged between the socket 6 and the chin rest 1 in which case it would of course have to act as a tractional spring.

A combined tongue holder and cheek and lip displacer 9 (shown in Fig. 1) is designed for use with the left cheek and lip, while 10 designates such an instrument designed for use in connection with the right cheek and lip, as shown in Fig. 2. As illustrated the instrument is approximately fork shaped, one of the prongs 13 of which serves as a tongue holder and is a little larger than the other prong 14, which serves as the cheek and lip displacer. The instruments 9 and 10 are each provided with a shank 9^a and 10^a, respectively, which terminate in short horizontal members 9^b and 10^b, respectively, each provided with an aperture 12.

The tongue holder 13, is provided with a small receptacle 15, the lower part 16 of which projects below the lower side of the tongue holder and is provided with lateral openings 17, which permit the entrance of saliva and prevent the cotton wool positioned in the patient's mouth from becoming soaked. A flexible pipe, not shown, leading from a suction pump (not shown) can be connected to the receptacle 15 by means of a circular flange 18. While I have shown and described the receptacle 15 in connection with the tongue holder 13 it is apparent that it could be applied to the cheek and lip displacer 14 or to each of the members 13 and 14 if desired.

The tongue holder and lip displacer 11, shown in Figs. 3 and 5 comprises a crescent shaped plate or lip displacer 19 provided with a shank 19^a terminating in a short horizontal member 19^b provided with an aperture 12. Near opposite ends of the lip displacer 19 are secured curved spanners 20, which are designed to pass over the teeth and are connected to a plate or tongue holder 21, which is provided with a receptacle 15, which is of the same construction and for the same purpose as that shown and described in connection with Figs. 1, 2 and 4 and hence similar reference numerals are applied thereto. The manner of employing this modification 11, which is particularly intended for use in connection with work on the fore-teeth, is illustrated in Fig. 5.

My dental apparatus can be easily and quickly inserted in the mouth of a patient, who will experience no discomfort by reason of its presence, and further the removal of the device can be effected with one hand.

As is readily apparent either of the interchangeable instruments 9, 10 or 11 can be quickly inserted in or removed from the socket or holder 6, by depressing the chin

rest 1, against the tension of the spring 8, which will withdraw the locking rod from the registering apertures 7 and 12.

I claim—

1. In a dental apparatus, a standard, said standard provided with a holder, said holder provided with an aperture, a chin rest, a tongue holder, a shank carried by said tongue holder and adapted to be removably secured in said holder, said shank provided with an aperture adapted to register with the aperture in said socket, and a locking rod, said locking rod normally extending through the registering apertures in said socket and said shank, and elastic means normally forcing said chin rest toward said tongue holder whereby said locking rod is projected through registering apertures in said shank and said socket.

2. In a dental apparatus, a base, a standard mounted on said base, said standard provided at its upper end with a holder, said holder having an aperture, a chin rest slidably mounted on said standard, a tongue holder, a shank carried by said tongue holder and adapted to be removably secured in said holder, said shank provided with an aperture adapted to register with the aperture in said holder, a locking rod normally extending through the registering aperture in said holder and said shank, and means for forcing the chin rest toward said tongue holder.

3. In a dental apparatus, a base member, a standard supported by the base, a sleeve movable on said standard, a holder fixed to one extremity of the said standard, a chin rest slidable with the sleeve, a tongue and cheek displacer supported by the holder, means carried by the chin rest for locking the tongue and cheek displacer within the holder, and means on the standard for forcing the chin rest and tongue displacer together.

4. In a dental apparatus, a base, a standard supported by the base, a sleeve movable on said standard, a holder fixed to one extremity of the standard, the said holder having a horizontally disposed slot, a tongue and cheek displacer, the tongue and cheek displacer terminating in a shank having a horizontal member, the said horizontal member adapted to be positioned within the slot, a chin rest on said sleeve, and means for forcing the chin rest and tongue displacer together.

5. In a dental apparatus, a base, a standard supported by the base, a sleeve movable on said standard, a holder fixed to one extremity of the standard, said holder having a horizontally disposed slot and an opening adjacent the slot, a tongue and cheek displacer, the tongue and cheek displacer terminating in a shank having a horizontal member, the horizontal member having an opening, the said horizontal member adapted to be positioned within the slot so that the opening in the horizontal member will aline with the opening in the holder, a chin rest on said sleeve, a rod extending from the said chin rest adapted to extend through the alining openings and lock the tongue and cheek displacer in position in the holder, and means for forcing the chin rest and tongue and cheek displacer together.

In testimony whereof I have hereunto set my hand in presence of two witnesses.

FREDERIC B. EGGLER.

Witnesses:
FRIDA KLAIBER,
PAULINE KLAIBER.