

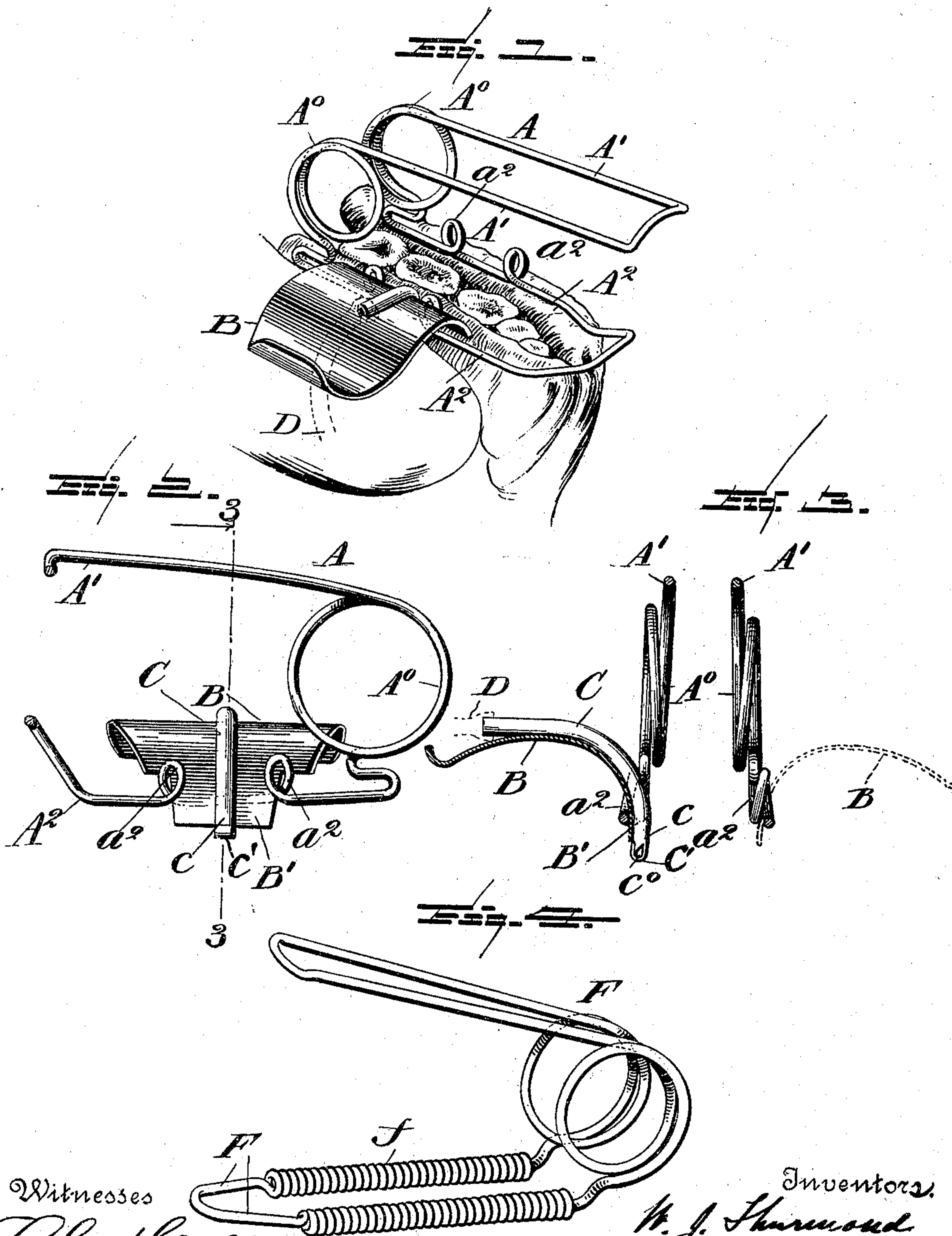
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Patented Jan. 9, 1900.

W. J. THURMOND & E. W. CLARK.
DENTAL APPLIANCE.

(Application filed July 26, 1899.)

(No Model.)



Witnesses

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UNITED STATES PATENT OFFICE.

WALTER J. THURMOND AND EDWIN WALTER CLARK, OF MACON,
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DENTAL APPLIANCE.

SPECIFICATION forming part of Letters Patent No. 641,170, dated January 9, 1900.

Application filed July 26, 1899. Serial No. 725,167. (No model.)

To all whom it may concern:

Be it known that we, WALTER J. THURMOND and EDWIN WALTER CLARK, citizens of the United States, residing at Macon, in the county of Bibb and State of Georgia, have invented certain new and useful Improvements in Dental Appliances; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to a new and improved instrument for use by dentists; and it has for its object to provide a novel, simple, and efficient device which affords means for the convenient and proper retention of a folded napkin or other porous material within the mouth of the patient and at the same time to retain the tongue depressed and napkin pressed against the gum on each side of the teeth that are being operated upon and also to provide for the discharge of the saliva.

Our invention consists in the novel devices hereinafter described and claimed and will be understood by reference to the accompanying drawings, wherein the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a perspective view showing our instrument in use. Fig. 2 is a side view of the same. Fig. 3 is a sectional view of the same, taken on the line 3 3 in Fig. 2 and looking in the direction of the arrow; and Fig. 4 is a perspective view of a modified form of our holding-clamp.

Referring particularly to Figs. 1 to 3, the clamp A consists of a continuous piece of spring-wire bent upon itself and spaced, forming upper members A' and lower members A². The two divided portions of the wire are coiled between the members A' and A², as shown at A⁰, or, if preferred, in two small coils to form a spring connection between the two members, which give to the clamp an expansible effect.

In each of the lower members A² are formed a pair of loops a² at a short distance apart, the loops of each pair being so formed as to receive the edges of a thin plate of proper width between the looped portions, and thus constitute means for holding a tongue-guard B.

This tongue-guard, as shown in Figs. 2 and 3, is formed with a vertical lug B' of a width to fit closely between the two loops a² in the lower member A². This tongue-guard may be inserted between the loops on either of the two side members A² and according to the position of the clamp within the mouth.

A short tube C is secured upon the tongue-guard B and has a depending end c, which extends along the lug B' and has small lateral openings c⁵ for the passage of saliva. When the clamp, with the tongue-guard in position, is in use in the mouth of the patient, the end c of this short tube extends down alongside of the roots of the teeth, and the saliva may be drawn off through the openings c⁰ in this end of the tube by means of a rubber tube D. (Indicated by dotted lines in Fig. 1 and a portion of which is shown in full lines in Fig. 2.) The end of the tube C being closed at c' and the saliva being drawn in through the lateral openings c⁰ only, the tendency to clog by mucus is obviated.

The tube C is attached to the tongue-guard for a short distance from its end c and extends straight across the upper side of the guard B, being spaced a short distance therefrom at its end, to which the rubber tube D is fitted, which may be used for either the right or left side, respectively, of the mouth of the patient by a simple adjustment, as will be readily seen.

In Fig. 4 we have shown a modification of the device for holding the filling-protector, in which the lower spaced member F' of the device is made in the form of closely-coiled springs, as seen at f', the clamp F being in other respects similar to the clamp shown in Figs. 1 to 3.

The devices shown in Figs. 1 to 3 may be used as well without as with the tongue-guard B, as will be obvious, the added feature of the tongue-guard being of advantage in some instances.

In use the spring-holder A is placed in the mouth of the patient, as seen in Fig. 1, the two arms thereof comprising the members A' and A² being compressed, so that the members A' bear upwardly in the mouth, while the members A² bear downwardly, as shown. The coil-springs connecting the two jaws of the

clamp are made with sufficient stiffness to give a good support to the mouth to assist the patient in keeping the mouth open, and these coil-springs also create sufficient pressure of the members A^2 upon the cloth or absorbent used to protect the filling to retain the same in position.

We do not wish to limit ourselves to the exact construction herein shown, as many modifications thereof might be made which could be used without departing from the spirit of our invention.

Having thus described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. In a dental absorbent-holder, the combination with a pair of jaws having a spring connection, each of said jaws comprising two spaced members and the members of one of said jaws being provided with holding-loops for a detachable tongue-guard; of a tongue-guard having a portion thereof engaging with the said loop of one of the members of the said jaw, substantially as described.

2. In a dental absorbent-holder, the combination with a pair of jaws having a spring connection, each of said jaws comprising two spaced members and the members of one of said jaws being provided with holding-loops for a detachable tongue-guard; of a tongue-guard having a portion thereof engaging with the said loops of one of the members of the said jaw; and a bent tube secured to the said tongue-guard and having one end extending downwardly into position for drawing off the saliva, substantially as described.

3. In a dental absorbent-holder, the combination with a pair of jaws having a spring connection, each of said jaws comprising two spaced members and the members of one of said jaws being provided with holding-loops for a detachable tongue-guard; of a tongue-

guard having a portion thereof engaging with the said loops of one of the members of the said jaw; a short bent tube secured to the said tongue-guard having one end arranged to depend into the mouth of the patient when in use; and a means for drawing off the saliva from the said tube, substantially as described.

4. In a dental appliance of the character described, the combination with a holder composed of two compressible jaws comprising spaced members A' and A^2 united by the spring-coils A^0 , the members A^2 being provided with pairs of holding-loops a^2 ; of the curved plate B having reduced portion B' adapted to engage between a pair of said loops a^2 , the said plate serving as an adjustable tongue-depressor, substantially as described.

5. In a dental appliance of the character described, the combination with a holder composed of two compressible jaws comprising spaced members A' and A^2 united by the spring-coils A^0 , the members A^2 being provided with pairs of holding-loops a^2 ; of the curved plate B having reduced portion B' adapted to engage between a pair of said loops a^2 , the said plate serving as an adjustable tongue-depressor; the short bent tube C secured upon the inner side of the plate B and open at one end and having lateral openings at or near the other end with perforated bulb to prevent clogging by mucus, the one end being arranged to connect with a flexible tube for drawing off the saliva, and the other depending into the mouth, substantially as described.

In testimony whereof we affix our signatures in presence of two witnesses.

WALTER J. THURMOND.
EDWIN WALTER CLARK.

Witnesses:

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S. L. Gerdine.