No. 766,018. PATENTED JULY 26, 1904.

H. M. CARROLL.

DENTAL CLAMP.

APPLICATION FILED JULY 18, 1903.

NO MODEL.

Fig. 1.

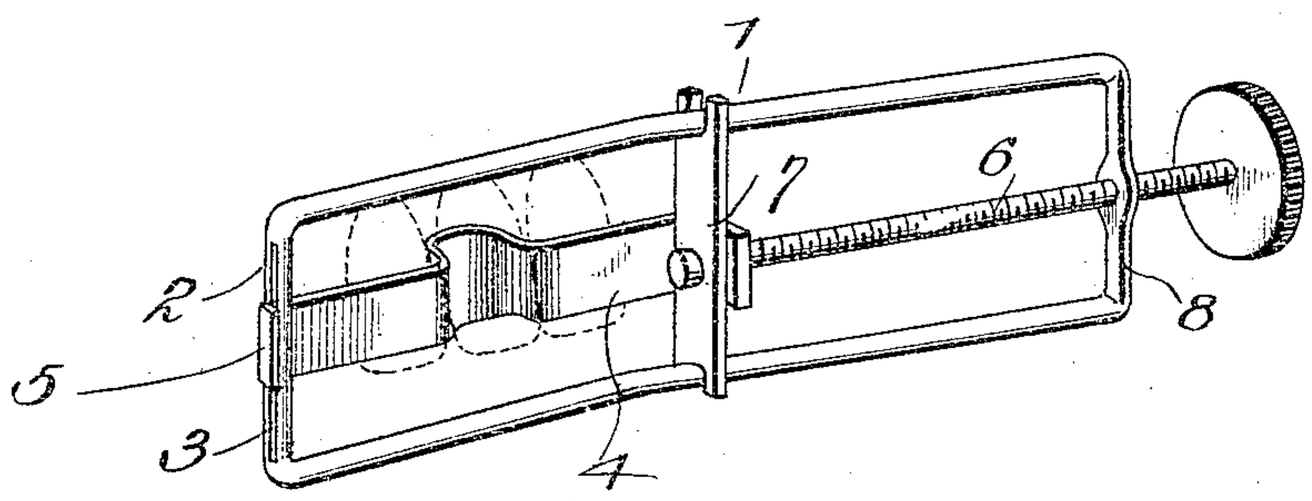
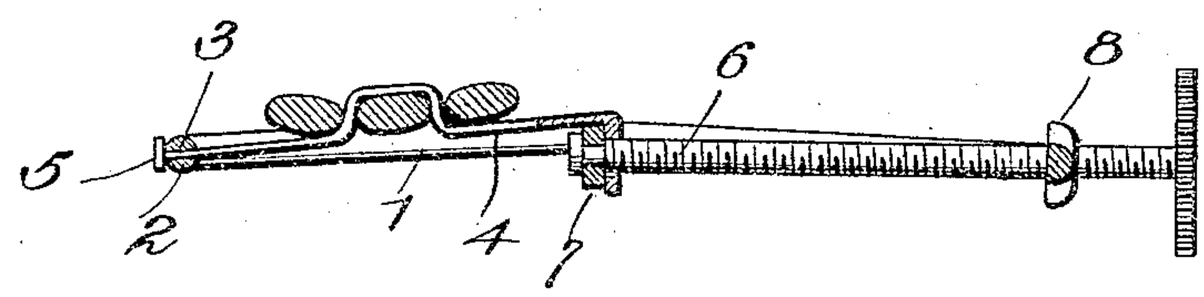


Fig. 2.



Witnesses
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No. 766,018. Patented July 26, 1904.

UNITED STATES PATENT OFFICE.

HOUSTON MONROE CARROLL, OF SAN ANTONIO, TEXAS.

DENTAL CLAMP.

SPECIFICATION forming part of Letters Patent No. 766,018, dated July 26, 1904.

Application filed July 18, 1903. Serial No. 166,158. (No model.)

To all whom it may concern:

Be it known that I, HOUSTON MONROE CARROLL, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Dental Clamp, of which the following is a specification.

The principal object of the present invention is to provide a means for supporting teeth during filling operations or such preliminary treatment of the teeth as may be necessary to prepare them for the reception of fillings.

A further object of the invention is to provide a device for connecting a number of teeth for mutual support and by means of which the shock due to the operation of boring or plugging instruments will be distributed over a number of teeth.

A still further object of the invention is to provide a novel form of clamp which may be readily engaged with the teeth to be supported and to provide means whereby said clamp may be adjusted to increase or decrease the supporting strain exerted on the teeth.

With these and other objects in view the invention consists in the novel construction and arrangement of parts hereinafter described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings, Figure 1 is a perspective view of the tooth-supporting clamp constructed in accordance with the invention and showing the same as applied to one of the superior incisors. Fig. 2 is a sectional plan view of the supporting-clamp.

Similar numerals of reference are employed to indicate corresponding parts throughout both figures of the drawings.

The device forming the subject of the present invention is intended principally to afford support for the incisors or other front teeth during filling operations and to distribute the shock of the plugging and other instruments to a number of teeth, thereby avoiding all danger of accidental breakage of the teeth and materially lessening pain and annoyance to the patient.

In the drawings, 1 indicates a frame in the form of an oblong loop, of which the shorter end bars support the clamp proper. One of these bars 2 is provided with an elongated slot 3 for the reception of one end of the clamping-plate 4. The clamping-plate is formed of a narrow strip of flexible metal and at one end is provided with an enlarged rib or cross-bar 5, which prevents the withdrawal of the plate from the slot 3. The opposite end of the strip is provided with an opening for the reception of a screw 6, the inner end of which is swiveled to a bar 7, while the opposite end of the screw passes through a threaded opening formed in the end bar 8 of the loop and is provided with a milled knob 9 for convenience in turning the screw and adjusting the strip.

The bar 7 affords a support and guide for the flexible strip, and owing to the flexibility of the strip its outer end may be readily adjusted in the slot 3 to suit varying conditions.

In using the device the strip is engaged with the lingual wall of the tooth to be filled and is then bent outward in such manner as to pass between the tooth to be filled and the adjacent teeth, the screw being first turned in order to permit free bending of the strip. After the strip has been adjusted the screw is turned to any desired extent in order that the tooth may be properly supported by the teeth on either side and the shock of the plugging instruments distributed in such manner as to lessen pain and annoyance to the patient and at the same time prevent breakage of the tooth under the repeated blows of the plugging instrument.

Having thus described the invention, what is claimed is—

1. In a device of the class specified, a flexible clamping-strip, an open integral frame closed on all sides and serving to support the strip, and means carried by the frame for exerting endwise strain on the strip.

2. In a device of the class specified, a flexible clamping-strip, a rectangular frame closed

on all sides and having at one end a slot for the reception of one end of the strip, and a screw carried by the opposite end of the frame and connected to said strip.

3. In dentistry, a flexible clamping-strip, an open frame of loop-like form having a slotted end bar for the reception of one end of the strip, an adjustable screw adapted to a threaded opening in the opposite end bar of the loop, said screw extending through the adjacent end of the strip, and a cross-bar to which the inner end of said screw is swiveled.

4. A dental clamp comprising an open metallic frame, a flexible strip supported at one end by the frame, a transverse bar having end slots for the reception of the side bars of the frame and connected to the opposite end of the strip, and an adjusting-screw carried by the frame and connected to said bar.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of witnesses.

HOUSTON MONROE CARROLL.

Witnesses:
F. C. DAVIS,
MASON WILLIAMS,
EDMUND YOUNG.