

B. L. MILLER.
 COMBINED TEETH SEPARATOR AND MIRROR.
 APPLICATION FILED JULY 9, 1912.

1,057,974.

Patented Apr. 1, 1913.

Fig. 1.

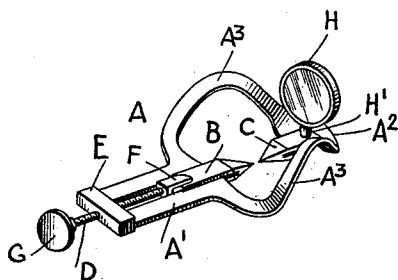


Fig. 2.

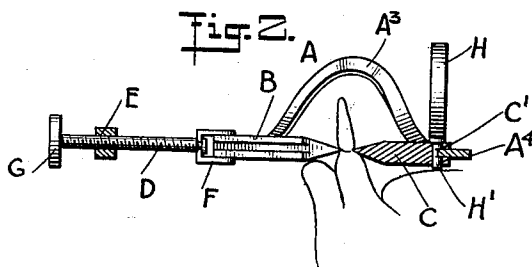


Fig. 3.

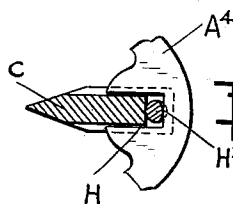
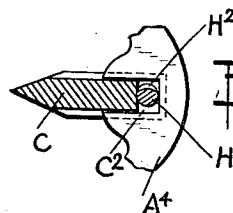


Fig. 4.



WITNESSES

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COMBINED TEETH-SEPARATOR AND MIRROR.

1,057,974.

Specification of Letters Patent.

Patented Apr. 1, 1913.

Application filed July 9, 1912. Serial No. 708,435.

To all whom it may concern:

Be it known that I, BENSON L. MILLER, a citizen of the United States, and a resident of Kingston, in the county of Ulster and State of New York, have invented a new and Improved Combined Teeth-Separator and Mirror, of which the following is a full, clear, and exact description.

The invention relates to dental appliances, and its object is to provide a new and improved form of combined teeth separator and mirror arranged to permit of illuminating and reflecting the cavities of teeth to be filled, or to illuminate the teeth while polishing a completed filling.

For the purpose mentioned use is made of a teeth separator and a mirror held adjustably and removably on the inner portion of the said separator, these parts being arranged as hereinafter described and as defined in the appended claim.

A practical embodiment of the invention is represented in the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the combined teeth separator and mirror; Fig. 2 is a transverse section of the same as applied; Fig. 3 is an enlarged sectional plan view of the rear jaw, the mirror, stem and yoke, and showing the parts in locking position; and Fig. 4 is a similar view of the same showing the mirror stem in position for removing it from the rear jaw.

The teeth separator consists essentially of a frame or yoke A having a front guideway A¹ for a front jaw B to slide in, the yoke also having a rear guideway A² for a rear jaw C to slide in, the front and rear guideways A¹ and A² being connected with each other by side arches A³ adapted to reach over the teeth in the mouth. The jaws B and C are in transverse alinement with each other and are provided at their opposite ends with points adapted to pass between a pair of teeth with a view to separate the same. A screw rod D screws in a nut E held on the outer guideway A¹ of the yoke A, and the inner end of the said screw rod D is mounted to turn in a bearing F attached to the outer end of the outer jaw B, and the

outer end of the said screw rod D is provided with a knob or a handle G for turning the screw rod D with a view to move the jaws B inward or outward when applying the dental appliance or removing it from the mouth. The rear jaw C is provided with a vertical opening C¹ and with a rear transverse slot C², and the said opening C¹ is adapted to be engaged by the stem H¹ of a mirror H disposed vertically on top of the jaw C and with its reflecting surface extending in a forward direction so as to illuminate and reflect the cavities of the teeth to be filled or otherwise treated. The stem H¹ is provided at the rear side with a recess or notch H² adapted to be engaged by the rear guideway A² of the yoke so as to hold the mirror H in locked position on the jaw C, as will be readily understood by reference to Figs. 2 and 3.

When the mirror H is in position on the rear jaw C and the separator is applied in the usual manner as described then the mirror can be readily turned to illuminate or reflect the cavities of teeth to be filled. It is understood that in placing a gold or other filling into a tooth cavity, the dentist is frequently obliged to reflect the cavity by use of a mirror held near the under or posterior surface of the tooth to thus illuminate the cavity. By the use of the mirror on the separator the dentist can readily turn the mirror to illuminate and reflect the desired cavity, and at the same time the dentist has both hands free to attend to the filling of the cavity. The mirror is also of service in doing other dental work to the teeth. The mirror can be readily removed from the separator when it is desired to do so by giving a half turn to the mirror with a view to move the notch or recess H² out of engagement with the rear guideway A² to permit of lifting the mirror out of engagement with the jaw C.

It is understood that the separator can be used without the mirror for separating teeth in the usual manner.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:

A dental appliance, comprising a teeth separator and a mirror, the said teeth sepa-

rator having a yoke, a front jaw and a rear jaw, the jaws being slidable on the said yoke and the said mirror having a stem turnably mounted in the said rear jaw, the stem being
5 provided at one side with a recess engaged by the rear end of the said yoke.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

BENSON L. MILLER.

Witnesses:

M. E. KELLY,
D. G. ATKINS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."