

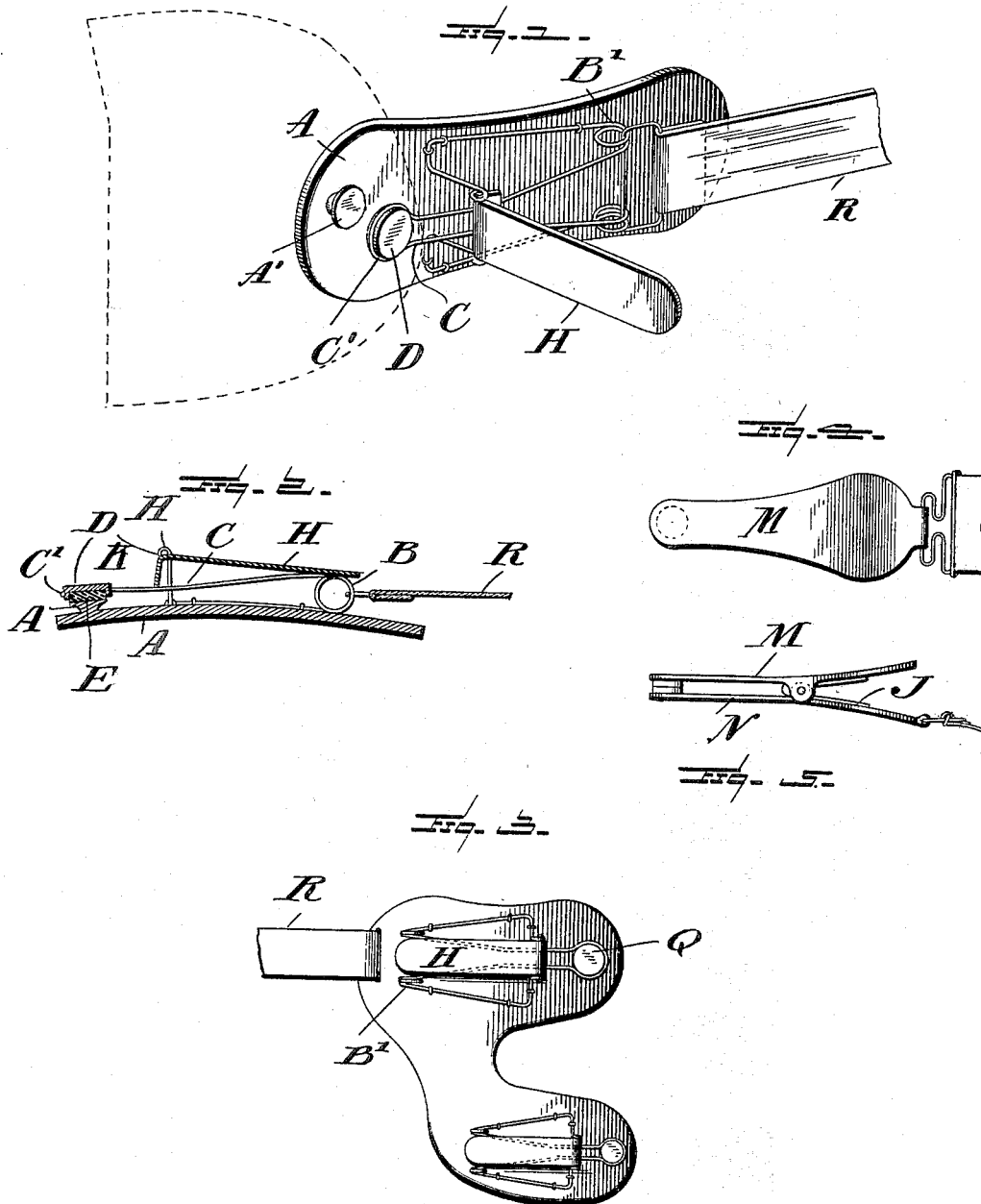
No. 647,574.

Patented Apr. 17, 1900.

S. M. MYERS.
DENTAL DAM HOLDER.

(Application filed Dec. 29, 1899.)

(No Model.)



Witnesses:
L. C. Hill
A. L. Hough

Inventor
Samuel M. Myers,
by Franklin H. Hough
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL M. MYERS, OF CLEBURNE, TEXAS.

DENTAL DAM-HOLDER.

SPECIFICATION forming part of Letters Patent No. 647,574, dated April 17, 1900.

Application filed December 29, 1899. Serial No. 741,979. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. MYERS, a citizen of the United States, residing at Cleburne, in the county of Johnson and State of Texas, have invented certain new and useful Improvements in Dental Dam-Holders; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in dental dam-holders, and particularly to the provision of means whereby the dam may be held by means of a cushion mounted on a spring and adapted to be held by means of a suitable lever against a lug on the guard carrying the spring and elastic connections which are adapted to pass about the head of the person using the same.

More specifically, the invention consists in the provision of a guard which is made concaved on one side, adapted to fit the curvature of the face of the wearer, and provided with one or more springs which carry at their free ends a disk which is adapted to carry a pliable material between which and the lug on the guard the dam is adapted to be held by means of an angle-lever bearing against the spring, a suitable clamping member being provided to hold the lower end of the dam underneath the chin of the wearer.

To these ends and to such others as the invention may pertain the same consists, further, in the novel construction, combination, and arrangement of parts, as will be hereinafter more fully described and then specifically defined in the appended claims.

My invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form part of this application, and in which drawings similar letters of reference indicate like parts throughout the several views, in which—

Figure 1 is a perspective view of my improved dam-holder, showing a single spring mounted on a guard which is adapted to be held to the dam. Fig. 2 is a view showing two spring-arms mounted on a single guard

which is made to conform to the curvature of the face, said springs adapted to coact with lugs on projecting portions of the guard to hold the dam in two places at each end thereof and Fig. 3 is a detail view of a clamping device embodying the features of my invention, in which two pivoted clamping-plates are provided, which are pivoted together and connected by means of an elastic strap.

Reference now being had to the details of the drawings by letter, A designates a guard which is made preferably of vulcanized rubber or other suitable material and is slightly convex on its under surface, so as to conform to the contour of the face of the wearer. Near one end of said guard and above its convex surface is a headed lug A', and securely fastened to the guard by any suitable means is a wire, which is coiled at B', thence outwardly bent, forming the spring-arm C, with a loop C' at its free end. Seated in said loop is a cup D, which is slightly contracted centrally about its circumference, said loop at the end of the spring-arm engaging the contracted portion of the cup to securely hold the same in place. Seated in said cup is a cushion E, preferably of soft rubber, and between the outer surface of said cushion and the head of said lug on the face-guard the edge of the dam is adapted to be held. In order to prevent the rubber dam from slipping from its clamped position between the cushion and said lug, the top of the lug is slightly etched or roughened, while the free end of the spring-arm carrying the clamping-cushion is held firmly against the lug by means of the angle-lever H, which lever is mounted on the pivotal pin H', journaled in the eyes K at the upper ends of the upright portion of said wire. The angled end of said lever is adapted to bear against and cause the spring-arm to be depressed as the free end of the lever is swung around so that its end rests against the coil of the wire, and owing to the manner of pivoting said lever the spring will cause said lever to be held in its locked relation when the latter is thrown over so that its free end rests upon the wire adjacent to the coil in the wire.

In Fig. 2 I have shown a face-guard which is preferably of the particular outline illustrated and has a concaved face adapted to conform to the face of the wearer, and on one

of the extensions of said guard is a wire which is similar to the wire before described, and illustrated in Fig. 1, and is held in engaging relation with a lug Q on one projection of said plate in a similar manner as the spring-arm shown in Fig. 1 is held in engagement with a lug on the central plate. A second spring clamping member of similar but of somewhat smaller size is mounted on the smaller of the two projections on said plate, and the spring-arm of said wire is held in a similar manner as are the other clamping members, which have been described, it being my purpose to provide two of these clamping devices, whereby a rubber dam may be held above and at the angle of the mouth when the mouth is open. These plates (illustrated in Fig. 1) are connected together by means of elastic straps R, there being provided two plates, one at each end of the elastic strap.

In Figs. 4 and 5 of the drawings I have illustrated a clamping device for holding the lower corner of the dam, which device embodies the essential features of my invention; but a slight modification is shown in this figure, in which two clamping-plates M and N are provided, having apertured ears through which a pin is passed in order to pivot the two together. These plates are made, preferably, the lower of vulcanized rubber and the upper of metal, and in the eyes in which the pivotal pin is held metallic sockets may be provided, if desired, in order to prevent wearing of the rubber. At the outer end of the plate N is a lug similar to the lug before described, and near the free end of the plate M on its inner face is a socket in which a rubber cushion is mounted in a manner similar as has been described with reference to the constructions shown in Figs. 1 and 2 of the drawings. Interposed between said plates M and N at the rear of their pivotal portions is a coiled spring J, which is provided to normally hold the outer free ends of the plates in engagement with each other. At the rear end of one of said plates is connected an elastic strap, the other end of which strap is designed to be similarly connected to a clamping member which is adapted to engage with the opposite lower corner of the dam after the strap has been passed about the neck of the wearer.

From the foregoing it will be noted that in the provision of a dental dam-holder embody-

ing the features of my invention the dam may be easily and quickly adjusted in place, held both above and at the angle of the mouth of the wearer, only one guard-plate being used, while the lower corner of the dam may be held up under the chin by means of the slightly-modified form illustrated in Fig. 3 of the drawings.

Having thus described my invention, what I claim to be new, and desire to secure by Letters Patent, is—

1. A dental dam-holder, comprising a face-guard concaved on one side to conform to the contour of the face of the wearer, a wire secured to the face of said guard having its ends upwardly bent and provided with eyelets, a lever pivoted to said eyelets, a portion of said wire being bent upon itself to form spring-arm, a lug on the outer face of the guard and means for clamping a rubber dam between the outer free end of said spring-arm and the lug, and the elastic strap connected to said wire, as set forth.

2. A dental dam-holder, comprising a face-guard slightly concaved on one face, and provided with a headed lug on its opposite face adjacent to one end, a wire secured to the convex surface of the guard with its ends upwardly projecting and provided with eyes, an L-shaped lever having lugs pivoted in said eyes, the wire being bent to form a coil, and having its middle portion bent upon itself with a loop formed at its middle portion and forming a spring member which is extended between the upright ends of the wire, a cup carried in said loop and a cushion in the cup adapted to hold a rubber dam between the same and said lug, and the elastic strap connected to said wire, as shown and described.

3. A dental dam-holder, comprising a guard-plate which is slightly concaved on one surface and provided with projecting portions, lugs adjacent to the ends of the latter and spring clamping members and levers for holding said springs in clamping relations as described, and an elastic strap secured in a slit in said guard-plate, as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL M. MYERS.

Witnesses:

E. J. BEACH,
J. H. HEINKE.