

(No Model.)

J. W. HAUGHAWOUT.
RUBBER DAM CLAMP.

No. 487,670.

Patented Dec. 6, 1892.

Fig 1

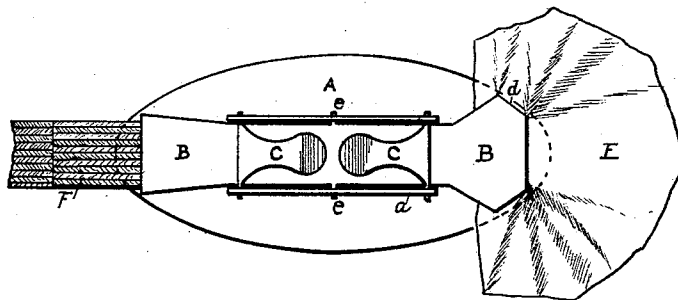
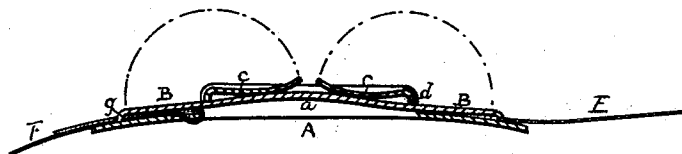


Fig 2



WITNESSES:

Frank Chrysler.
Andrew Rosewater.

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INVENTOR

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JOHN W. HAUGHAWOUT, OF OMAHA, NEBRASKA, ASSIGNOR TO ALBERT S. BILLINGS, OF SAME PLACE.

RUBBER-DAM CLAMP.

SPECIFICATION forming part of Letters Patent No. 487,670, dated December 6, 1892.

Application filed July 21, 1890. Serial No. 359,389. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. HAUGHAWOUT, a citizen of the United States, residing at Omaha, in the county of Douglas and State of Nebraska, have invented certain new and useful Improvements in Rubber-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 has relation to new and useful improvements in that class of dental specialties known as "rubber-dam holders," and has for its object the provision of a dam-holder that shall be neat, durable, effective, and, above all, readily adjustable at all times and under all conditions.

In the drawings forming part of this specification, Figure 1 shows a top view of my improved rubber-dam clasp, and Fig. 2 a sectional view on line *xx* of Fig. 1.

Similar letters of reference refer to corresponding parts throughout the drawings.

The great objection to the dam-holders heretofore made is, first, that the rubber dam cannot be speedily or promptly adjusted within the clamps because of the clamp-rings having to be operated by means of the finger-nails; secondly, as the clamp only clasps the rubber dam at one point a series of objectionable folds are formed which greatly deteriorate from the value of the device, and, lastly, it is impossible by means of the holders as heretofore made to obtain a delicate adjustment thereof. To provide a means to overcome these many defects is the aim and object of this invention, wherein—

A represents the oval frame-plate of my improved rubber-dam clasp or holder, which is preferably made of spring metal and having a rectangular central portion stamped out, so as to form the two flanges *aa*, extending parallel to each other, and between which the pressure-plate B and the spring lever-arms C are pivoted. The pressure-plate B is provided at one end with a hexagonal-shaped clamping portion, at two sides of which are

provided the downwardly-extending lips *dd*, which are adapted to pinch the rubber dam E to the frame, as shown in Fig. 1. Centrally the pressure-plate B is further provided with two stub-arms *ee* at diametrically-opposite points, which work within suitable openings of the flanges *aa* and by means of which the pressure-plate is pivotally connected to the frame. The remaining free end of the pressure-plate is simply slightly widened and provided with the downwardly-curved lip *g*, which binds upon the folded connecting-tape F, as shown in Fig. 2.

The lever-arms C C are precisely alike, the circular end offering means whereby the arms may be operated, while the portion bent at right angles thereto serves as a lever to lock the pressure-plate upon the frame A. The arms are provided with two stubs by means of which they are connected to the flanges, as shown. At one end the frame A is further provided with a cross-bar *h*, which is formed by cutting out a portion of the metal of the frame-plate between the opening formed by the flanges *aa* and said end. Over this cross-bar the tape F is guided, as shown in Fig. 2, so that when the lever-arm C is not in a locked position the tape F may be readily adjusted to any tension and then by means of the arm C locked at the desired point. The plates are, as understood by all those conversant with the art to which this device appertains, always used in pairs.

An elastic tape connects the two dam-holders at the end provided with the cross-bar *h* and passing over the same, while the hexagonal-shaped clamping ends *dd* serve in holding the rubber dam E over the patient's mouth.

The advantage gained by having the lips *dd* at opposite points is of great service in that it forms a wide flat surface, at each side of which the lips are snugly held. Another great advantage is that the dam may be readjusted at any moment without inconvenience to either patient or operator. Further, by means of the clamp at the tape end of the device the most delicate adjustment is possible at whatever stage of the operation, as the operator has simply to loosen the clamp, readjust the tape, and then again lock it at the desired point. This is an advantage that is

shown by no other device heretofore made. The pressure-plate B, being made of spring metal, is of course always in an open or unlocked position, excepting when the lever-arms C C are closed.

The device is exceedingly simple, durable, and may be operated under any and all conditions and made of metal, rubber, or any other suitable material.

10 Having thus described my said invention, what I claim as new, and desire to secure by United States Letters Patent, is—

1. As a new article of manufacture, a rubber-dam clasp comprising a suitable frame-plate, flanges centrally and integral with said frame-plate, and a pressure-plate pivoted within and extending beyond said flanges and provided at the ends with suitable depending lips, in combination with suitable operating-

levers pivoted between said flanges and above said pressure-plate, substantially as shown and described.

2. As a new article of manufacture, a rubber-dam clasp comprising a suitable frame-plate, a cross-bar at one end of said frame-plate, flanges integral with said frame-plate, and a pressure-plate working within and extending beyond said flanges and provided at the ends with suitable depending lips, in combination with suitable operating-levers, all arranged substantially as shown, and for the purpose set forth.

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

JOHN W. HAUGHAWOUT.

Witnesses:

GEO. W. SUES,

ANDREW ROSEWATER.