

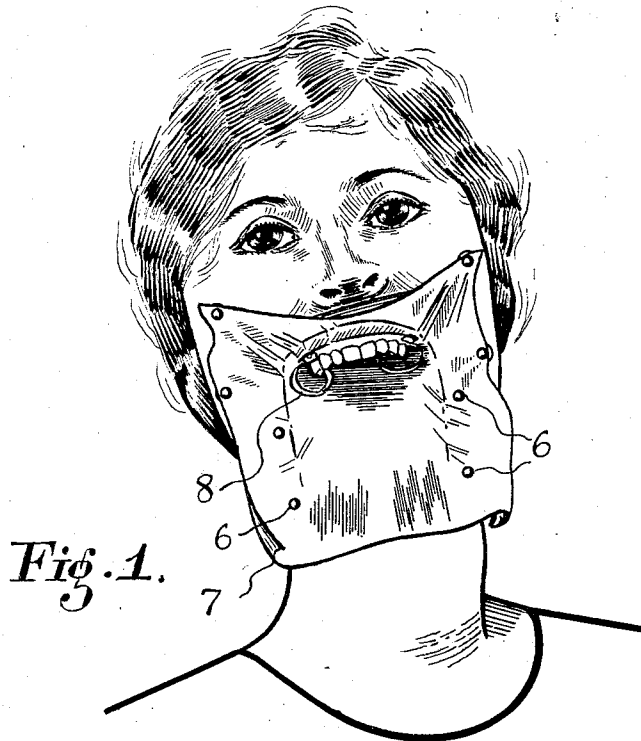
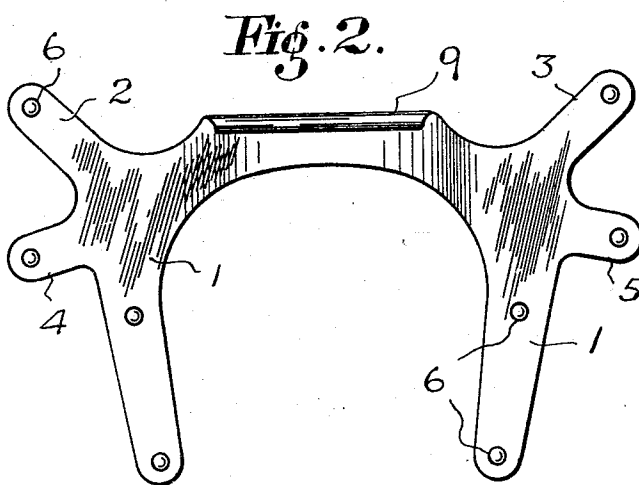
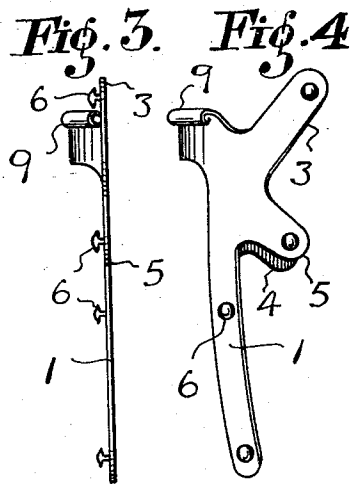
Aug. 26, 1930.

W. C. MIDDAGH

1,774,285

RUBBER DAM HOLDER

Filed Feb. 1, 1928



INVENTOR
WILLIAM CLAY MIDDAGH.

BY
W. Wallace [Signature]
ATTORNEY

UNITED STATES PATENT OFFICE

WILLIAM CLAY MIDDAGH, OF EASTON, PENNSYLVANIA

RUBBER-DAM HOLDER

Application filed February 1, 1928. Serial No. 250,993.

This invention relates to improvements in rubber dam holders for dentists use, and to the method of applying or using the device.

One object of the invention is to provide a holder which may be readily adapted for application to the face of the patient so that it is effectively retained in position by the tension of the rubber sheet or dam without other fastening means.

A further object is to make the holder of material which may be conveniently deformed or bent to conform to the contours of the face of the patient so that the application or pressure to any portion of the frame will not rock or tilt the device.

A still further object is to provide a new or improved method of securing a rubber dam for use in dental operations, which consists in mounting the rubber sheet under tension on a skeleton frame having two or more arms extending at definite angles from the frame placing the latter around the mouth of the patient and bending the parts of the frame to exactly conform to the contours of the patient's face and to bear thereon with uniform pressure throughout.

With these objects in view the invention consists in the novel construction hereinafter described in the accompanying drawings, and particularly pointed out in the appended claims, and in the novel method of applying and using the device.

In the drawings: Fig. 1 is a perspective view showing the device in use; Fig. 2 is a front view of the device ready for use; Fig. 3 is an edge view thereof; and Fig. 4 is a side view showing the device as it might be bent or shaped to suit the contours of the face of a patient.

In the form shown on the drawing the holder consists of a thin aluminum plate 1, of inverted U-shape and with narrow projecting arms 2, 3 at the top and somewhat similar arms 4, 5 at the sides. Projecting from the front of the plate 1 are a number of posts or studs 6 for the reception of the rubber sheet 7 which is perforated for the reception of the said posts. The upper edge of the plate is rolled or folded at 9 so as to present a smooth or rounded surface which

may make contact with the under surface of the nose of the patient without causing irritation or discomfort.

When it is desired to apply a rubber dam to an upper or lower denture the usual sheet rubber 7 is first attached in the usual way by means of ligatures or clasps 8 to the tooth or teeth to be operated on and the rubber sheet is then punched by means of an ordinary punch and the holes thus formed are fitted on to the studs or posts 6 as clearly shown at Fig. 1. These holes must be punched in such location that when they are slipped over the posts 6 the rubber is under decided tension. The parts of the frame or plate 1 are then bent—as shown for example at Fig. 4—until the rear surface thereof engages closely and uniformly against the face of the patient and the device is then retained in its proper position by the rubber sheeting 7 without other supporting means, and the uniform engagement of the holder upon the face of the patient entirely precludes the possibility of rocking or tilting of the holder even when pressure is applied to any part thereof when an operation is being performed upon the teeth to which the dam has been applied.

Although the drawings and the above specification disclose one mode of carrying out this invention it will be understood that, in the practical application of my invention, many changes may be made in form and construction as circumstances may require or as experience may suggest without departing from the spirit of the invention within the scope of the appended claims.

I claim:

1. A rubber-dam holder of the character described comprising a light bendable U-shaped frame of sheet material having integral independently bendable arms extending outwardly therefrom with projecting means on the U-shaped part and on the arms for the attachment of the usual rubber sheeting.

2. A rubber-dam holder of the character described comprising a sheet metal frame of inverted U-shape with outwardly projecting top and side arms adapted to be bent to con-

form to the contours of the patient's face and means on the frame and arms for the attachment of the usual rubber sheeting.

3. A rubber-dam holder of the character described comprising a bendable sheet metal frame of inverted U-shape with arms projecting upwardly and outwardly therefrom and having projecting posts on the U-shaped frame and on said arms for the attachment of the rubber sheeting.

4. A rubber-dam holder of the character described comprising a deformable U-shaped frame with integral deformable projecting arms on the top and sides thereof and with posts projecting from said arms and from the frame for the attachment of the rubber sheeting.

5. A rubber-dam holder of the character described comprising a deformable sheet metal frame of inverted U-shape with a rolled upper edge for engagement with the patient's nose and with means for the attachment of the usual rubber sheeting.

6. A rubber-dam holder of the character described comprising a bendable aluminum frame of inverted U-shape with projecting upper and side arms and a rounded upper edge, and means on the said frame for the attachment of the usual rubber sheeting.

In testimony whereof I have signed my name to this specification.

WILLIAM CLAY MIDDLEAUGH.

35

40

45

50

55

60

65