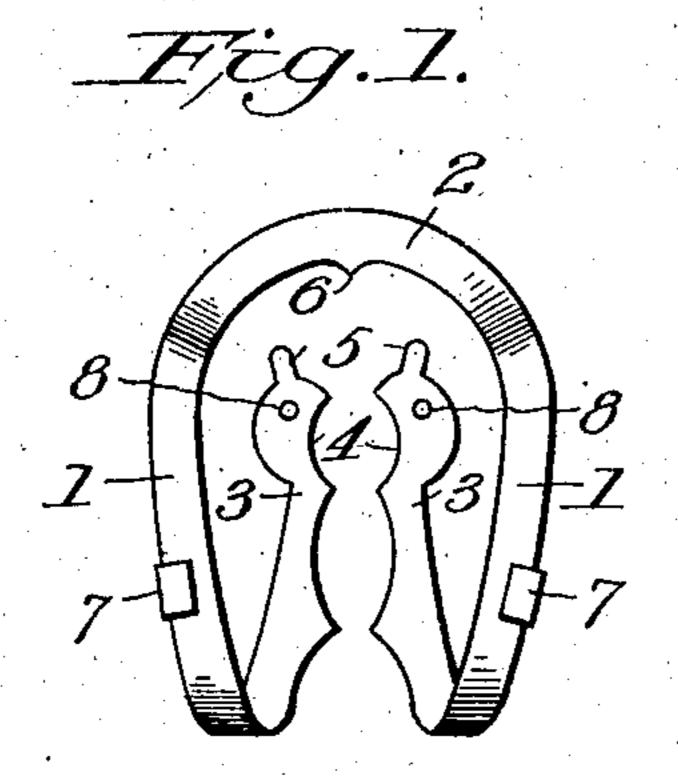
No. 827,236.

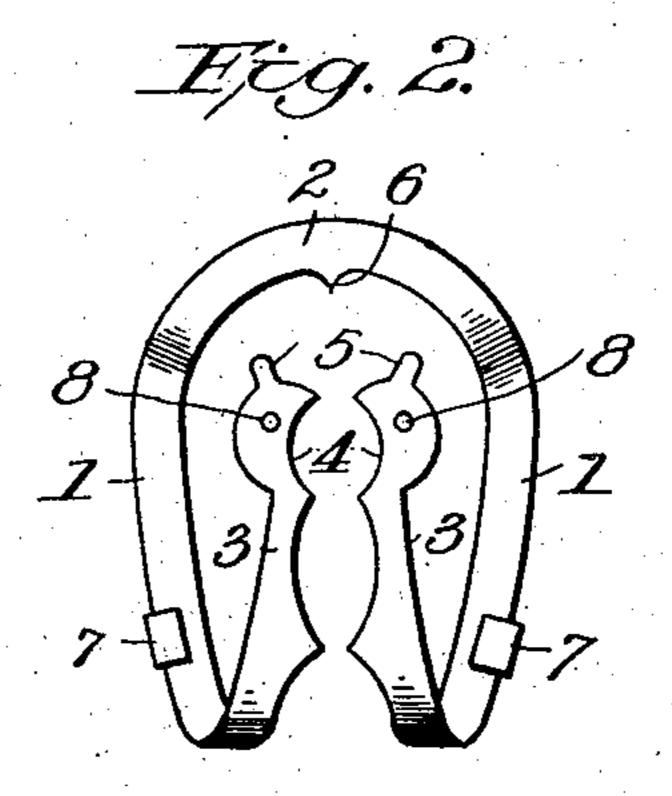
PATENTED JULY 31, 1906.

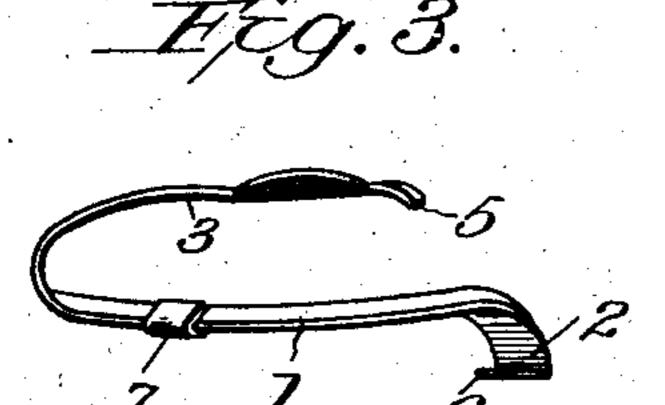
## H. J. HANSEN.

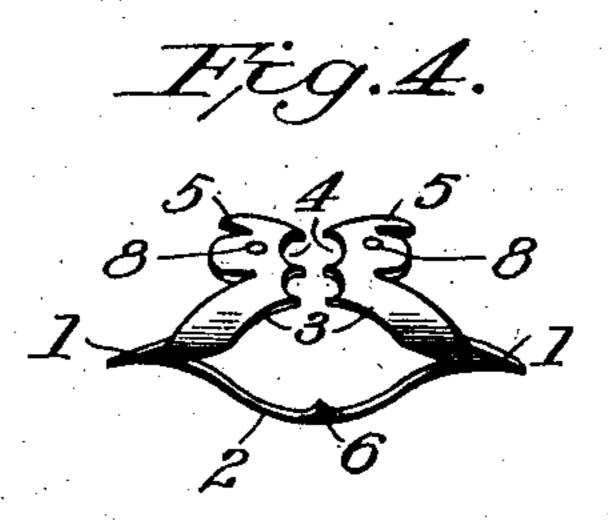
COMBINED RUBBER DAM CLAMP AND HOLDER.

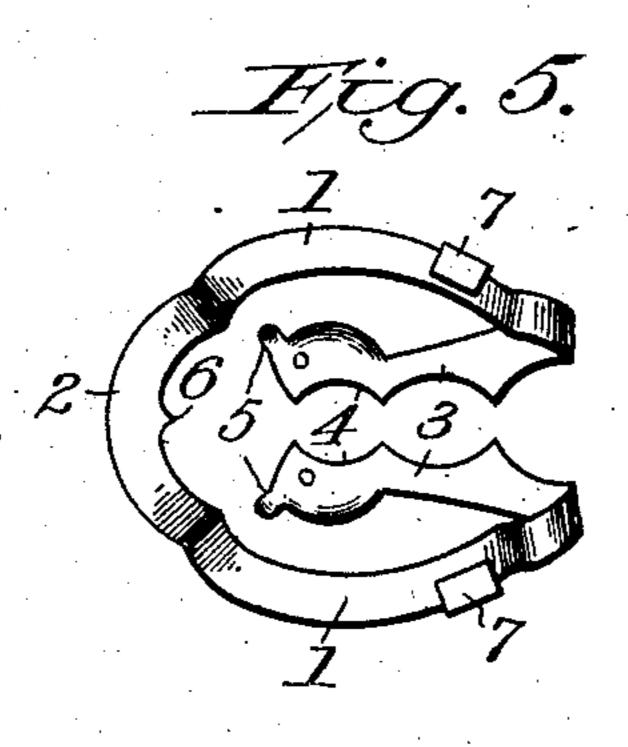
APPLICATION FILED JULY 15, 1905.











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## UNITED STATES PATENT OFFICE.

HARALD J. HANSEN, OF LA CROSSE, WISCONSIN.

## COMBINED RUBBER-DAM CLAMP AND HOLDER.

No. 827,236.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed July 15, 1905. Serial No. 269,891.

To all whom it may concern:

Be it known that I, Harald J. Hansen, a citizen of the United States, residing at La Crosse, in the county of La Crosse and State of Wisconsin, have invented a new and useful Combined Rubber-Dam Clamp and Holder, of which the following is a specification.

This invention relates to improvements in rubber-dam holders for use in dentistry; and the object is to provide a simple and convenient holder with which a very small piece of rubber dam may be used and by the use of which the patient will suffer less inconvenience and will be given more freedom, while at the same time the saliva is effectually kept away from the cavity while the work is being performed on the teeth.

With the above object in view the invention consists in the novel features of construction hereinafter fully described, particularly pointed out in the claims, and clearly illustrated by the accompanying drawings, in which—

Figure 1 is a top plan view of a holder constructed in accordance with my invention; Fig. 2, a bottom plan view of the same; Fig. 3, a side elevation of the holder; Fig. 4, an end elevation, and Fig. 5 a bottom plan view.

My improved holder is formed of a simple 3° piece of material, having the side arms 1 connected at one end by a bridge or arch 2, which is disposed on one side of the side arms and in a different plane. The arms at their opposite ends are extended and disposed to-35 ward the bridge or connecting portion 2, forming spring clamping members 3. These spring clamping members 3 are disposed upon the opposite sides of the arms 1 to the bridge and lie in a different plane, as illustrated in Figs. 3 and 4, and are formed at their ends with clamping portions 4. Said clamping portions 4 have their meeting edges formed concave, so as to grip the teeth to which the dam is to be applied. Adjacent to 45 their ends said clamping portions are formed with projections 5. The bridge or connecting portion 2 is formed with a pointed projection 6 at its center and upon its inner edge.

In operation a small piece of rubber dam is I the parallel members.

placed upon the holder, a hole having been made therein to receive the tooth, or two holes if for two teeth, the opening therein made by said hole or holes being inserted over the clamping portions 4, the rubber en- 55 gaging over the projections 5. The rubber is then passed around arms 1 and the bridge 2 and the edges inserted over the pointed projection 7. Detachable clamps 7 hold the rubber dam upon the side arms, as illus- 60 trated. The holder is then placed over the tooth by means of ordinary universal forceps, which engage in the perforations 8, formed in the clamping portions 4. The spring clamping portions 4 by engaging the tooth or teeth 65 hold the device in position.

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

1. The combination with a rubber-dam 70 holder comprising a frame consisting of side arms, a connecting-bridge, and clamping portions, said bridge formed with a pointed projection to engage the rubber dam, of detachable clamps upon the side arms for holding 75 the rubber dam thereto.

2. A rubber-dam holder comprising a frame consisting of side arms connected by a bridge disposed on one side thereof and in another plane, and spring clamping portions 80 formed integral with the side arms and disposed on the opposite side thereof and in another plane, said clamping-arms being provided with clamping portions concave on their opposing edges and having projections 85 over which the rubber dam is adapted to engage, a pointed projection carried by said bridge for engaging and holding the rubber dam, in combination with detachable clamps upon said side arms for holding the rubber 90 dam.

3. A rubber - dam holder consisting of spaced parallel members or side arms connected at one end by an arched or bridged portion and having their opposite ends bent 95 to extend toward the bridge portion and formed with spring clamping portions, the spring clamping portions and bridge portion being disposed in planes on opposite sides of the parallel members.

4. A rubber-dam holder consisting of spaced parallel members or side arms connected at one end by an arched or bridged portion and having their opposite ends bent to extend toward the bridge portion and formed with spring clamping portions, the spring clamping portions and the bridge por-

tion being disposed in planes on opposite sides of the parallel members, and a pointed projection carried by the bridge portion.

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