

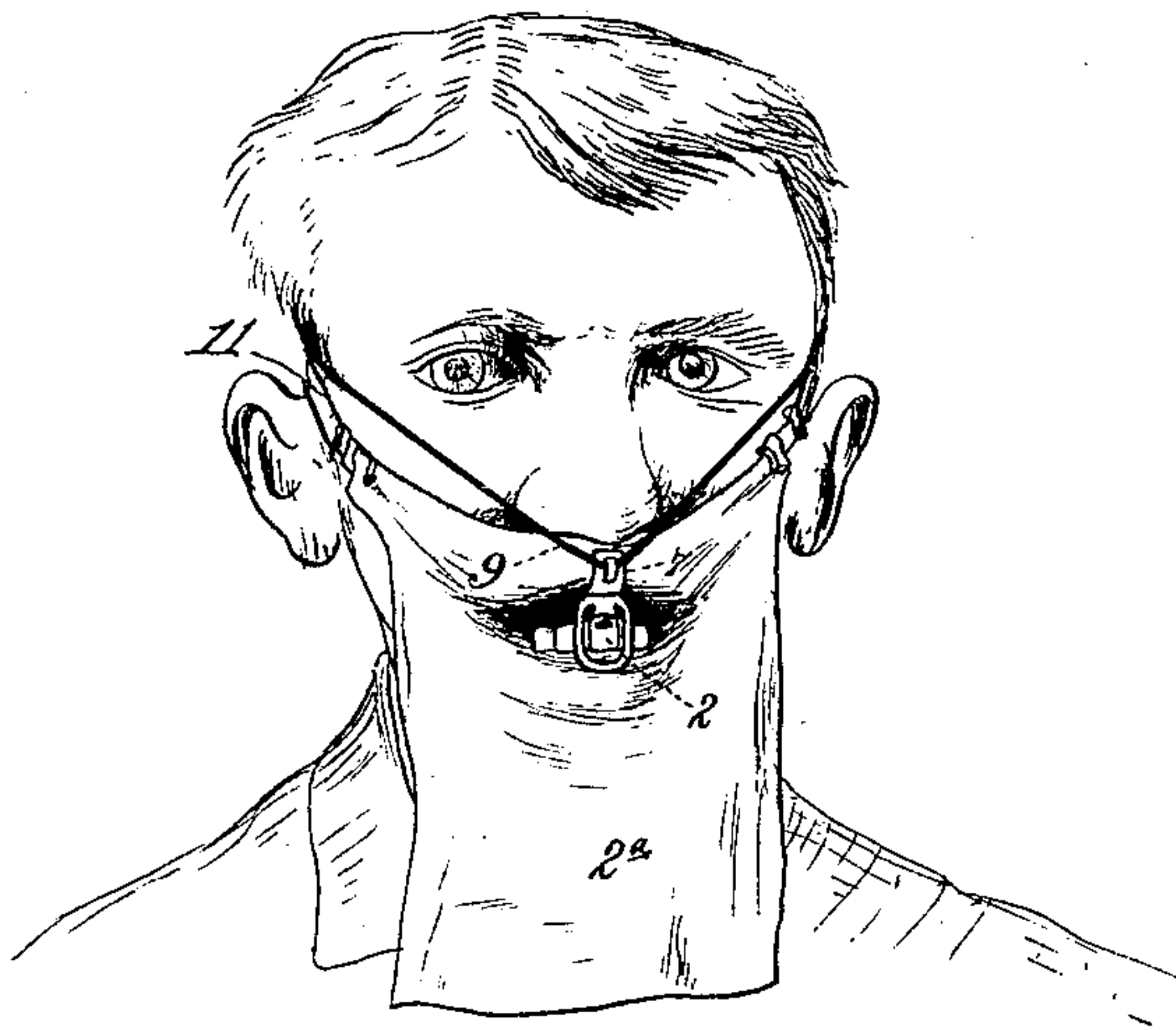
(No Model.)

H. H. JOHNSON.  
RUBBER DAM CLAMP.

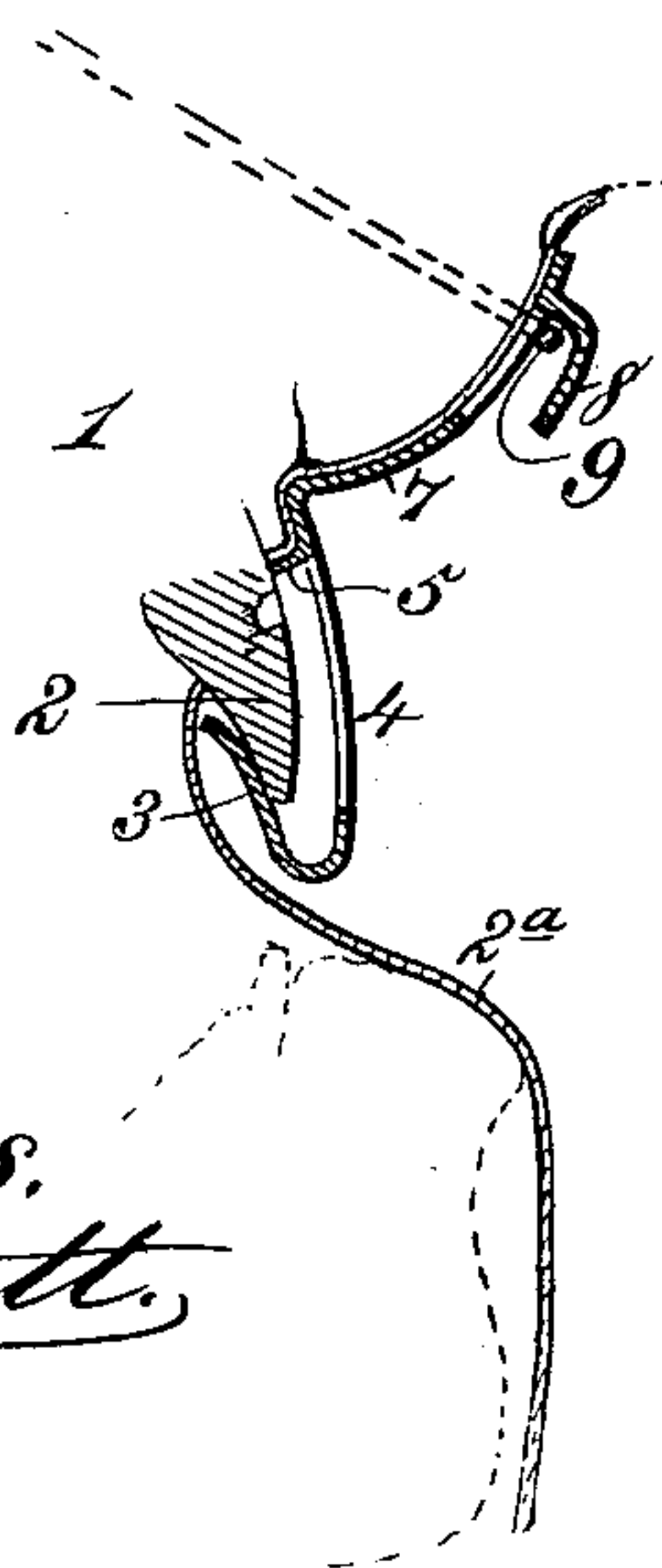
No. 370,194.

Patented Sept. 20, 1887.

*Fig. 1*

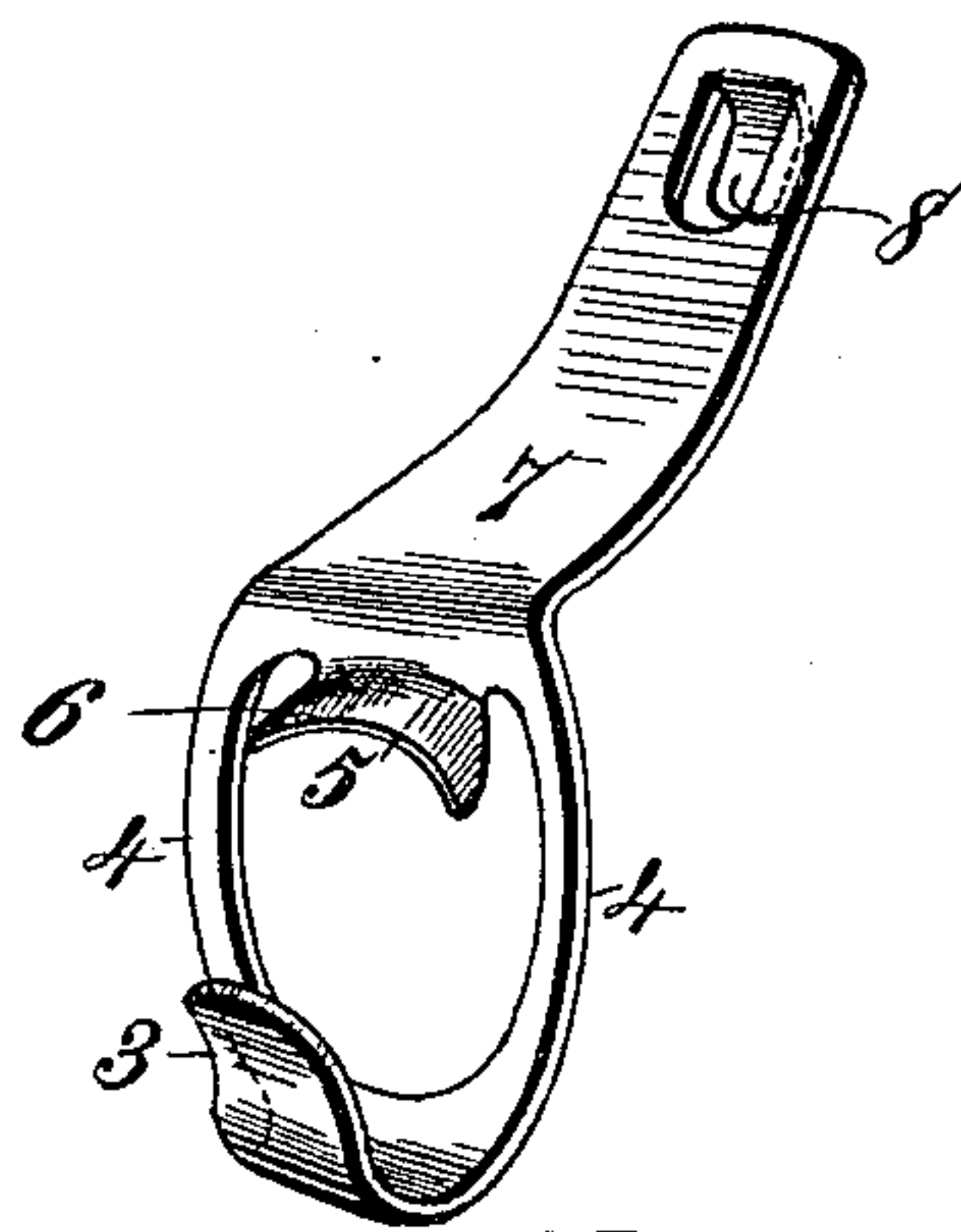


*Fig. 2*



*Witnesses,*  
*Robert Everett,*  
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*Fig. 3*



*Inventor,*  
*Henry H. Johnson,*  
*By James L. Norris,*  
*Atty.*

# UNITED STATES PATENT OFFICE.

HENRY H. JOHNSON, OF HAWKINSVILLE, GEORGIA.

## RUBBER-DAM CLAMP.

SPECIFICATION forming part of Letters Patent No. 370,194, dated September 20, 1887.

Application filed June 20, 1887. Serial No. 241,893. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY H. JOHNSON, a citizen of the United States, residing at Hawkinsville, in the county of Pulaski and State of Georgia, have invented new and useful Improvements in Rubber-Dam Clamps for Dental Purposes, of which the following is a specification.

My invention relates to that class of devices employed by dentists in filling labial cavities in incisors, cuspids, and bicuspids, where said cavities extend to or under the margin of the gum. To fill these cavities properly it is necessary to have free access thereto, and absolute freedom from the moisture of the salivary glands, and the purpose of my present invention is to provide a simple and readily-applied device whereby the gum may be raised or removed from the cavity and the flow of saliva diverted therefrom, said device being held in place during the operation without requiring the intervention of the operator or his assistant, thus leaving both hands of the former free and enabling him to finish the work in one operation.

The invention consists in the several novel features of construction and new combinations of parts hereinafter fully set forth, and definitely pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view showing the device in use. Fig. 2 is a central vertical section from front to rear. Fig. 3 is a detail perspective of the gum-retractor with its connected parts.

In the said drawings, the reference-numeral 1 denotes the upper jaw of a patient, and the numeral 2 an incisor having a labial cavity which it is necessary to fill. In order to divert the natural moisture from the parts, I employ a sheet of rubber, 2<sup>a</sup>, which is drawn closely up around the defective tooth, and, if the proximity of the neighboring teeth require it, around them also. Upon the defective tooth I then place the rubber-dam clamp shown in Fig. 3, which consists of a metallic clasp or tongue, 3, lying against the inner surface of the tooth, said clasp being connected by bars or strips 4 with the main portion. Between the strips 4 the gum-retractor 5 is

formed, consisting of a piece of metal between the strips 4, which is bent inward or toward the tooth, and has a curved edge, 6, which lies against the labial surface of the tooth and raises and holds the gum to expose the cavity. Above the retractor the metal is bent outwardly and in such form as to embrace the lip and form a lip-holder and mustache-supporter, 7. Upon the upper extremity of this portion a lug or tooth, 8, is struck outwardly, to permit the attachment of tapes 9, by which a proper leverage is given the device.

In using the rubber-dam clamp a thin sheet of rubber, 2<sup>a</sup>, is applied in the manner shown in Fig. 1, the tooth to be treated passing through the same, as well as those lying adjacent, if necessary, forming the dam. The end of the rubber is secured to a strap, 11, which passes around behind the head. The clamp is then applied in proper position, and a cord, tape, or elastic, 9, is carried around or over the head and over the extremity of the lip-holder 7, resting upon the lug 8.

By this device the gum is pushed above the cervical margin of the cavity, the lip is supported out of the way, moisture is effectually excluded, and both the operator's hands are left free for the work.

The device is simple, easily adjusted, and does not disturb the gums at any point save that where the work is to be performed, and there it acts as a protector. It is less painful than any clamp of the kind, and enables the dentist to finish his work at one sitting and without requiring the presence of an assistant.

By making the clamp in three sizes it is applicable to all front teeth.

What I claim is—

1. A rubber-dam clamp consisting of a tongue or clasp engaging with the point of the tooth, a body portion having a gum-retractor projecting therefrom, and a lip-holder having means for the attachment of cords or tapes, substantially as described.

2. A rubber-dam clamp formed of a single piece of metal, and consisting of a tongue or clasp hooking under the tooth, a gum-retractor struck from the body portion and projecting inward, and a lip-holder curved out-



ward and upward and having at its end means for the attachment of cords or tapes, substantially as described.

5 3. The combination, with the rubber dam 2<sup>a</sup>, of the incisor-clamp composed of the tongue or clasp 3, the lip-holder 7, connected to the tongue by bars 4, the gum-retractor 5, and the cords or tapes 9, substantially as described.

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

HENRY H. JOHNSON.

Witnesses:

C. H. KING,  
A. F. ARNOLD.