E. B. STOUGHTON.

DAM HOLDER.

APPLICATION FILED MAY 26, 1917.

1,292,133. Patented Jan. 21, 1919.

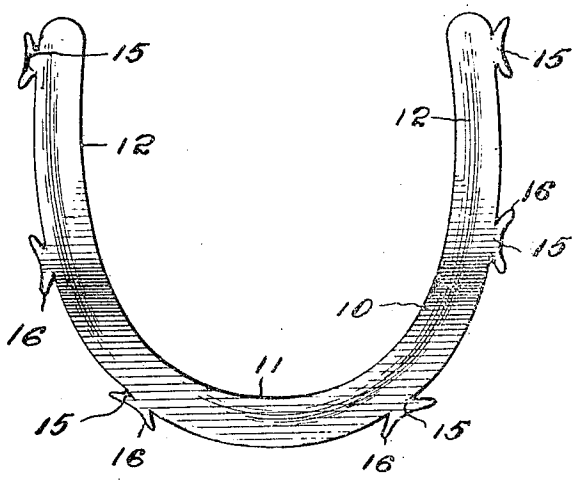


Fig. 1.

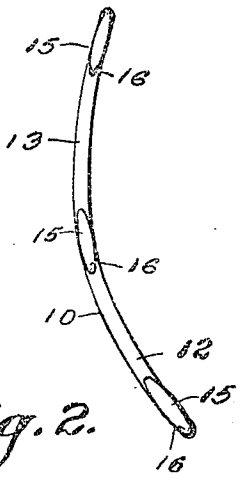
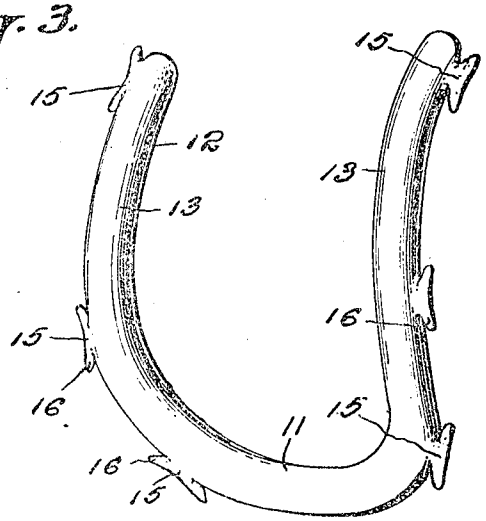


Fig. 2.

Fig. 3.



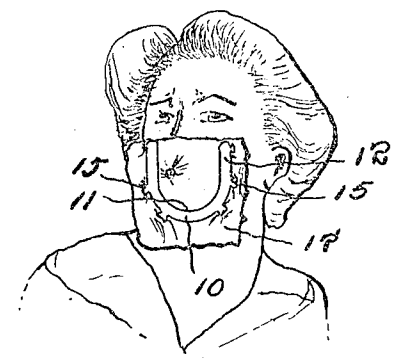


Fig. 4.

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UNITED STATES PATENT OFFICE.

ELMER B. STOUGHTON, OF ROGERS, ARKANSAS.

DAM-HOLDER.

1,292,133. Specification of Letters Patent. Patented Jan. 21, 1919.

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To all whom it may concern:

Be it known that I, ELMER B. STOUGHTON, a citizen of the United States, residing at Rogers, in the county of Benton and State of Arkansas, have invented certain new and useful Improvements in Dam-Holders, of which the following is a specification.

It is an important aim of my invention to provide a device which may be supported by the dam itself upon the face of the patient, in such manner as to hold the outer edge portions of the dam well beyond the limits of the mouth, and to maintain the dam in such condition that it will not tend to get in the way of the dentist, and will leave a clear space around the tooth or teeth engaged in the dam, enabling the necessary operations to be conducted with facility. A further object is to provide an appliance of this kind which will be adapted to the contour of the face of the average person when the mouth is open. A further aim is to give such a construction as will operate satisfactorily for holding the dam, either for upper or lower teeth. A further purpose is to enable the device to be manipulated quickly and in a simple manner, requiring no great dexterity or experience. A further aim is to provide a new and novel means for securing rubber sheeting upon a support, or for fastenings for various purposes.

Additional objects, advantages and features of invention will appear from the combination and formation and arrangement of parts in the device as particularly described hereinafter, and shown in the drawings, wherein,

Figure 1 is a plan view of the appliance in one form,

Fig. 2 is an edge view thereof,

Fig. 3 is a perspective view of the device,

Fig. 4 shows the invention in use upon a patient.

There is illustrated a dam holder comprising a substantially U-shaped frame member 10, which may be formed of aluminum or other suitable metal or may be of rubber and other compositions of a suitable character, having such a length that when the bight 11 is disposed upon the symphysis of the lower jaw, the ends of the arms 12 will stop closely adjacent the malar prominences of the face. The holder is of a width such that it will lie with its ends immediately under the centers of the malar prominences of the average face, and the intermediate portions of these arms lie outwardly of the ends of the mouth. Upon the outer edges of the arms 12, there are a series of spur cleats 15, somewhat similar in form to the ordinary nautical cleat used for securing hemp cables. The point portions 16 of the cleats extend in alinement with the adjacent portion of the holder 10, approximately, and are blunted at their ends so that when a dam is secured thereupon as hereinafter described, it will not necessarily be punctured. The cleats in practice have been made from three-eighths to one-half an inch long, although the size may be varied as found desirable. The cleats are preferably concaved upon their outer surfaces, slightly, although this is not essential.

In use, a portion of rubber sheeting 17 is cut, of a size to receive the desired teeth of a patient through its central part, and to have its outer edges stretched beyond the borders of the patient's mouth. The dam may be engaged upon the teeth and the holder applied thereto afterward, or the dam may be secured upon the holder and fitted to the teeth of the patient afterward, as circumstances make most desirable. In the event that the dam is adjusted upon the teeth first, the edge portions thereof are drawn outwardly and held against the face of the patient beyond the mouth as well as possible with one hand, while the holder is laid upon the dam in the proper position with respect to the mouth of the wearer so as to lie as much as possible out of the way of the dentist when manipulating implements in operating upon the patient. The edge portion of the dam adjacent one of the cleats 15 is then drawn outwardly so as to stretch the dam slightly away from the point of engagement with the cleat, and the rubber immediately adjacent the teeth stretched in opposite directions from the middle of the cleat and pressed thereagainst while it is released. The elasticity of the material of the dam will then draw it together upon the points of the cleat, causing these to press into the material of the dam and hold the rubber of the dam against disengagement. It will be understood from this that each cleat effects a holding engagement with the dam independently of the other cleats. A similar operation is then performed on an opposite cleat, and also upon the others in turn and when this adjustment has been completed, it will be found that the holder is supported

snugly against the face of the patient, while the dam is held as desired, covering the mouth of the patient, the parts being well out of the way of the dentist, and the patient suffering a minimum of inconvenience from the dam and the holder.

If desired, certain parts of the dam may be left loose while others are stretched tightly, if found desirable by the dentist. Thus, when a tooth at the back of the mouth is to be operated upon, the dam may be allowed to lie loosely in the mouth of the patient thereby leaving space around the tooth or teeth inserted through the dam, in which instruments may be manipulated freely.

In case it should be found desirable, the dam may be stretched upon the holder first, and the dam and holder laid against the face of the patient.

The engagement of the dam around the teeth of the patient is accomplished in the usual manner familiar to dentists.

What is claimed is:

In a dentist's dam holder, a frame and a plurality of cleats on the outer sides of the frame, each cleat including two oppositely extended considerably elongated point portions alined with the adjacent part of the frame and having blunt ends, whereby a dam may be laid over the frame and immediately adjacent local portions stretched over the cleats under tension longitudinally of the cleats to be frictionally held thereon by each cleat individually.

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

ELMER B. STOUGHTON.

Witnesses:
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ANNA B. TWINEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."