

(No Model.)

W. S. HOW.
CERVIX CLAMP.

No. 382,039.

Patented May 1, 1888.

Fig. 1.



Fig. 2.

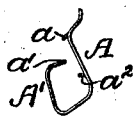


Fig. 3.



Fig. 4.

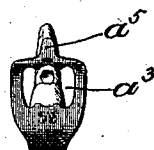


Fig. 5.

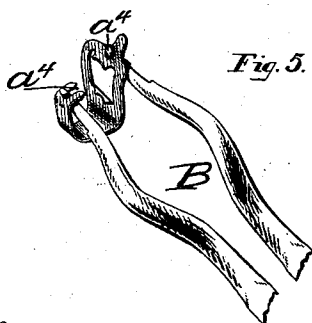


Fig. 6.

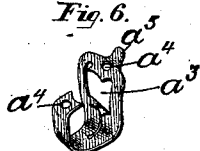


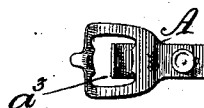
Fig. 8.



Fig. 7.



Fig. 9.



WITNESSES:

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INVENTOR,

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UNITED STATES PATENT OFFICE.

WOODBURY STORER HOW, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR
TO THE S. S. WHITE DENTAL MANUFACTURING COMPANY, OF SAME
PLACE.

CERVIX-CLAMP.

SPECIFICATION forming part of Letters Patent No. 382,039, dated May 1, 1888.

Application filed February 13, 1888. Serial No. 263,871. (No model.)

To all whom it may concern:

Be it known that I, WOODBURY STORER HOW, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Cervix-Clamps; and I do hereby 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.

My invention relates to dentists' rubber-dam-clamp devices, and particularly to the class thereof known as "cervix-clamps."

Carious cavities are often found in the necks of the natural teeth on the front side or labial surface, and may extend so far beneath the gums that the ordinary two-jawed clamps will not serve to push or hold the gums out of or away from the cavities, where it is desirable to excavate and fill them. In such a case the opposite palatine or lingual part of the tooth-neck is or may be normal at its cervical margin, and the gum-line will usually be, say, one-eighth of an inch nearer the cutting-edge of the tooth than the abnormal gum-line above the cavity at the front or labial surface; hence a two-jawed clamp will not stay in position if one jaw is forced into place an eighth of an inch, say, beyond the other jaw on the opposite side of the tooth, because a diagonal grip between the two jaws independently of other impingement on the tooth or adjacent teeth is impracticable. To provide an efficient rubber-dam clamp for such cases as these and similar ones is the principal object of my invention, and I have devised a clamp having two jaws, as usual, one of which is fitted with two bearing or gripping points to bear and rest on the outer or labial surface of the tooth and the other jaw of which is fitted with a bearing or gripping point to bear and rest on the inner or lingual surface of the tooth at a point between the two bearing or gripping contacts at the opposite side of the tooth, so that the tooth is firmly clamped between the three bearing or gripping points of the clamp, notwithstanding the tooth at the lingual surface is gripped at a point not directly opposite the

gripping-contact at the opposite or labial side of the tooth.

It will be obvious that with a clamp such as I have devised the inner jaw of the clamp may rest upon the tooth—say at its inner cervical junction with the gum—while one of the bearing or gripping points of the other jaw may be fitted beyond the normal outer cervical junction of the tooth with the gum, and be held there, without danger of slipping, by the aid of the other bearing or gripping point of the same jaw, which may rest upon the outer enamel surface of the tooth at a point lower down, for example, than the bearing-point of the clamp at the back of the tooth.

The subject-matter claimed herein by me I have particularly recited at the close of this specification.

In the accompanying drawings, Figure 1 is a side view of an incisor-tooth, showing a carious or decayed portion at the front or labial side and behind the gum, the gum-line being shown by the curved dotted line. Fig. 2 is a side view of one form of my improved clamp, showing its two bearing or gripping points on one jaw and the single gripping-point of the opposite jaw intermediate thereof. Fig. 3 is a side view showing the clamp in position and holding the gum above the cavity to be operated upon, and Fig. 4 is a face view thereof. Fig. 5 is a view of the clamp upon the beaks of the usual forceps, as in applying or removing the clamp. Figs. 6, 7, 8, and 9 are views of modified forms of my improved clamp.

The clamps may be made of thin sheet spring-steel, and in the bow form, as usual, so as to have two main jaws, A A', and bent into any shape desired for particular cases or uses. The front or labial jaw, A, has two bearing or gripping points or surfaces, a a^2 , and the back or lingual jaw, A', has a bearing or gripping point or surface, a' , to rest against or grip the tooth from the opposite side and at a point intermediate of the gripping points or surfaces a a^2 . A secure hold or grip of the clamp upon the tooth is thus insured, while a firm bearing is afforded upon the tooth beyond the gum-line and to hold the gum away from the cavity to be operated on. The front face of the clamp

is cut out—as at a^3 , for example—so as to afford full access to the cavity, and the jaws of the clamp are or may be provided with the usual or any suitable holes or surfaces, a^4 a^4 ,
5 for the application of the usual expanding forceps, B, in applying and removing the clamp. The clamps may also have suitable lips or projections, a^5 , to form holding-places for the rubber dam, &c.
10 The clamps may be made to act by the spring of the metal, as usual; or they may be made of similar spring or other thin metal, in two parts, united by a clamp-screw, as in Figs. 8 and 9, and the shank of one of such jaws,
15 through which the clamp-screw passes, may be longitudinally slotted, so as to admit of one jaw being adjusted longitudinally on the other. The clamp action may be by the clamping together of the sections on the tooth by the
20 clamp screw or device; or, as in the bow form, the spring of the metal may be employed.

Obviously other modifications may be made, while still preserving my form of clamp—to wit, one having upon one jaw two bearing or gripping points and upon the other jaw a bearing or gripping point somewhere between the limit of the two upon the opposite jaw. 25

I claim as my invention—

The dental clamp having two jaws, one of which has two bearing points or surfaces for one side of a tooth and the other of which has a bearing point or surface for the opposite side of the tooth between said two bearing-points on the opposite jaw, substantially as described. 30

In testimony whereof I affix my signature in presence of two witnesses. 35

WOODBURY STORER HOW.

Witnesses:

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ISAAC M. YOUNG.