

(No Model.)

W. S. HOW.
CERVIX CLAMP.

No. 382,039.

Patented May 1, 1888.

Fig. 1.



Fig. 2.



Fig. 3.

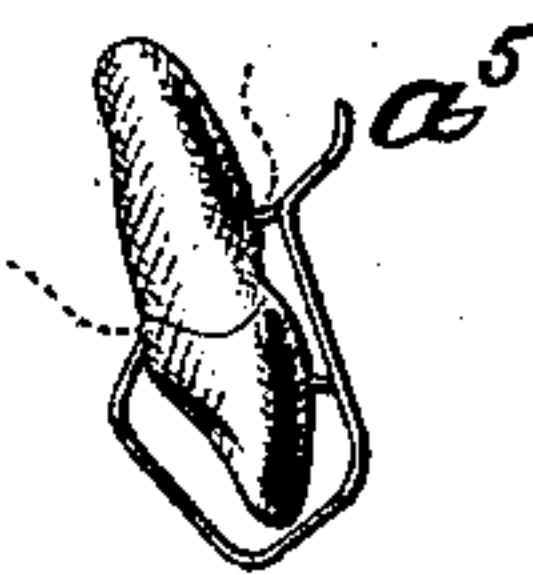


Fig. 4.

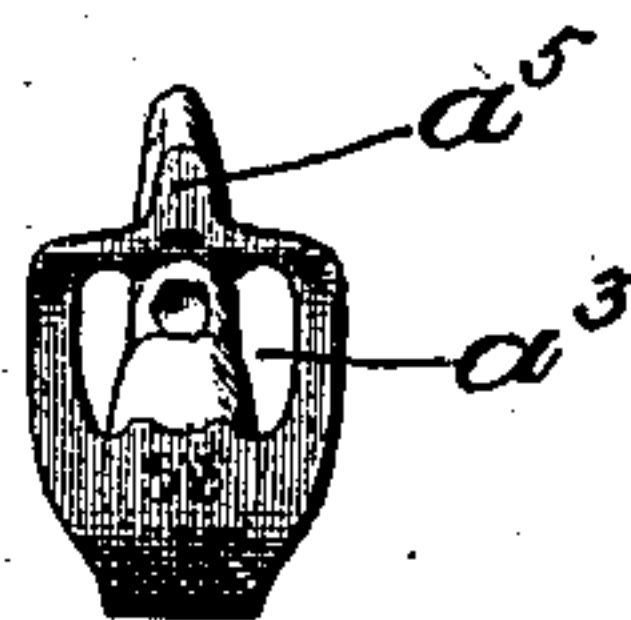


Fig. 5.

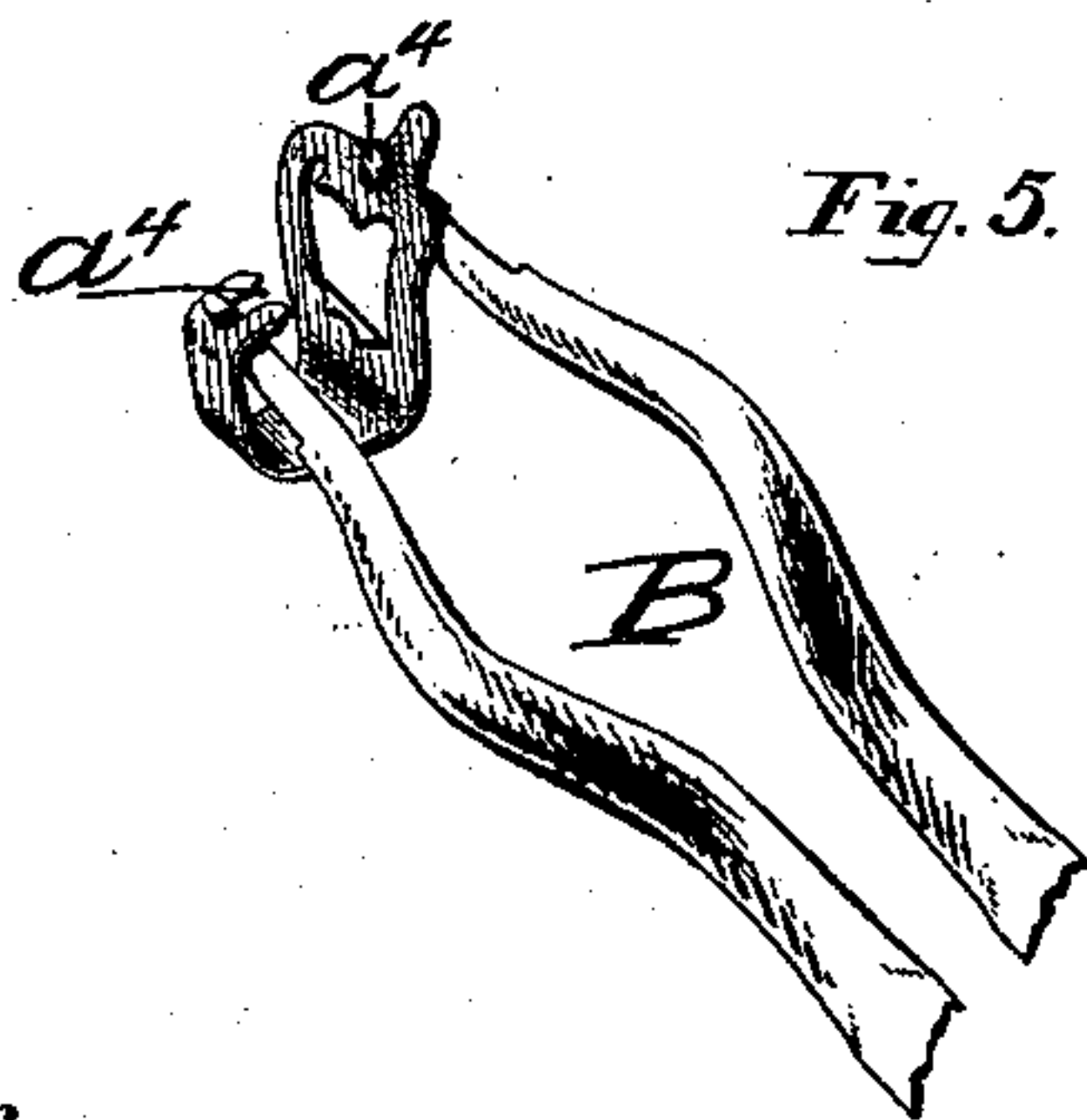


Fig. 6.

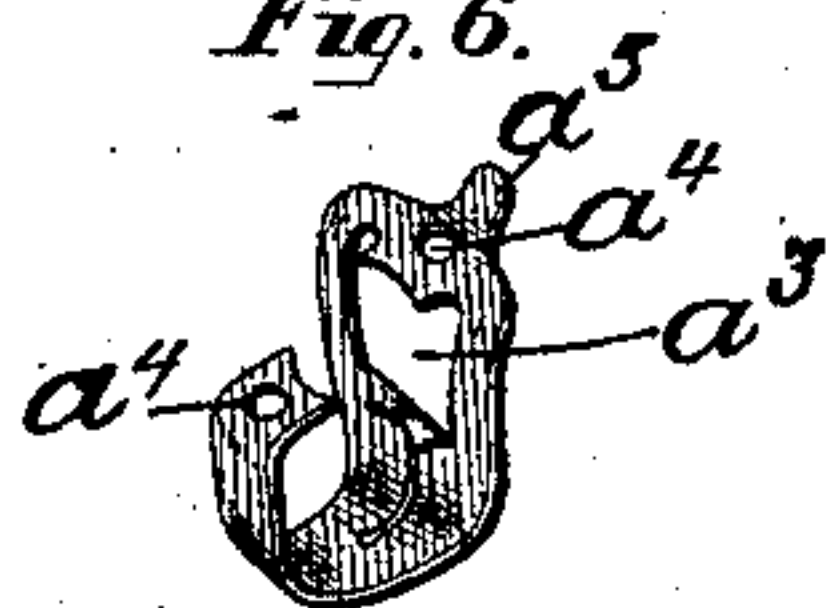


Fig. 8.

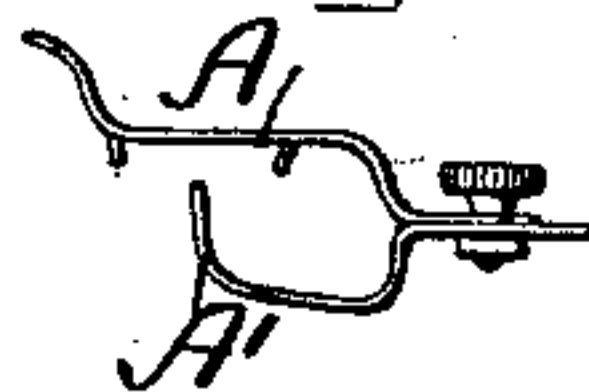


Fig. 7.

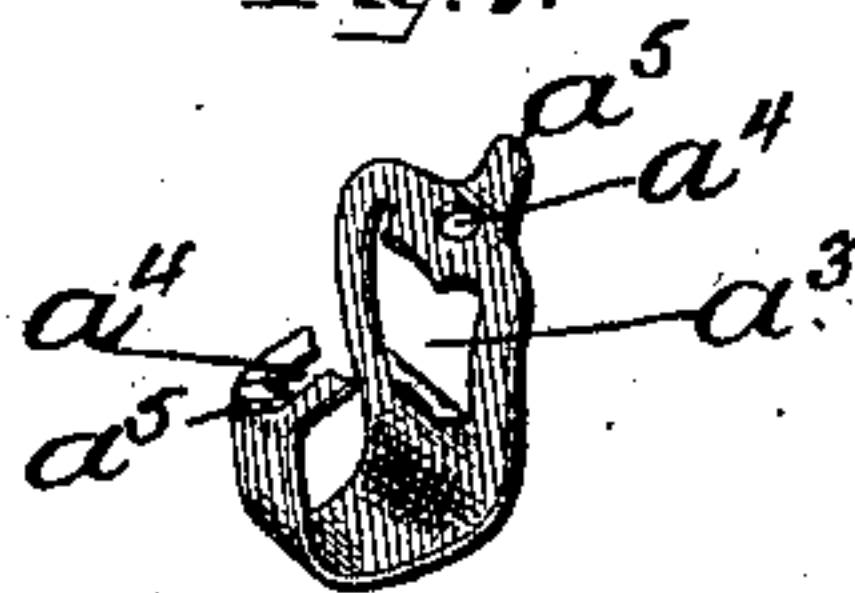
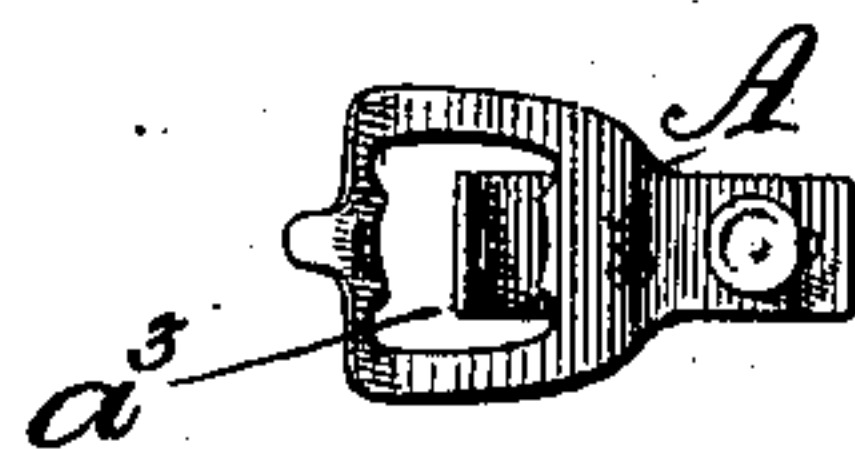


Fig. 9.



WITNESSES:

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by his Atty

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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 cer-
tain 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 mar-
gin, 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 oppo-
site 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 rub-
ber-dam clamp for such cases as these and simi-
lar ones is the principal object of my inven-
tion, 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 in-
ner 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 bear-
ing or gripping points of the clamp, notwith-
standing 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. 50

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 bear-
ing 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. 60

The subject-matter claimed herein by me I
have particularly recited at the close of this
specification. 65

In the accompanying drawings, Figure 1 is
a side view of an incisor-tooth, showing a cari-
ous 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 oper-
ated 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 remov-
ing the clamp. Figs. 6, 7, 8, and 9 are views
of modified forms of my improved clamp. 75

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 grip-
ping 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 interme-
diate 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 85

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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