

(No Model.)

H. P. BOOTH.
DENTAL MATRIX.

No. 388,619.

Patented Aug. 28, 1888.

Fig: 1.

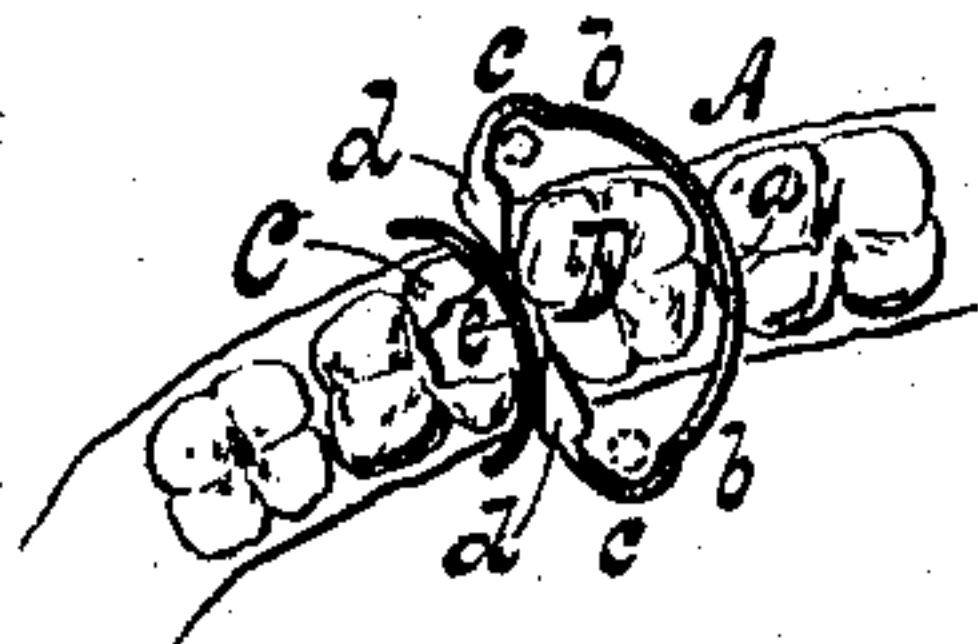


Fig: 2.

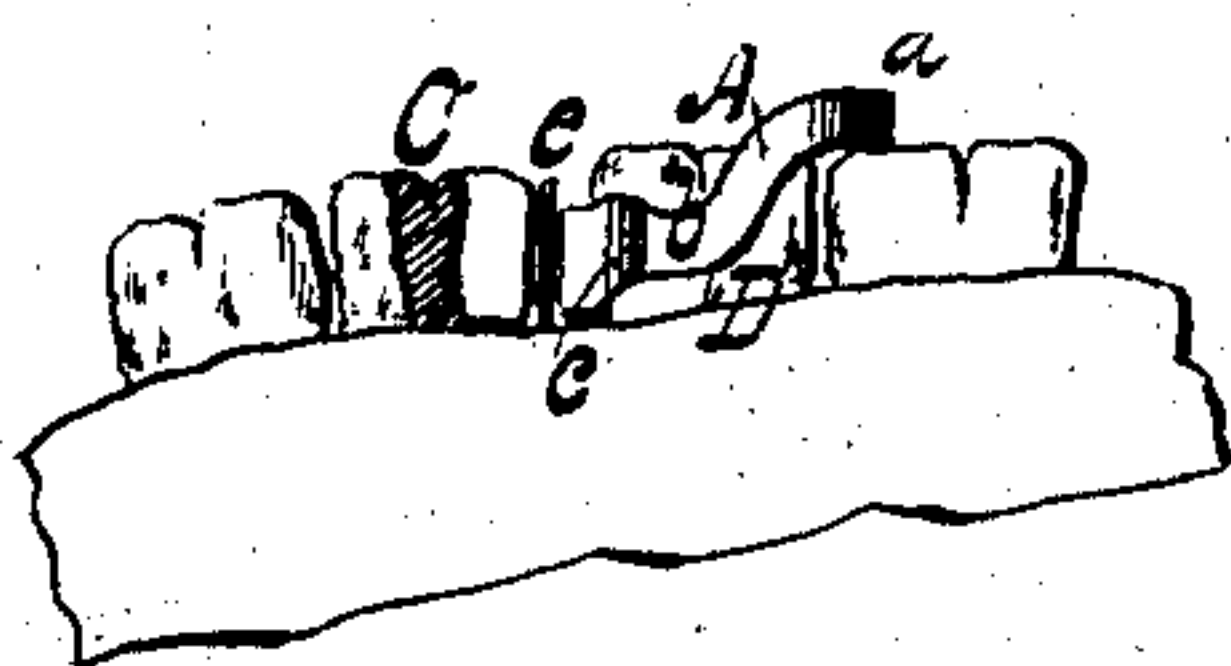


Fig: 3.



Fig: 5.

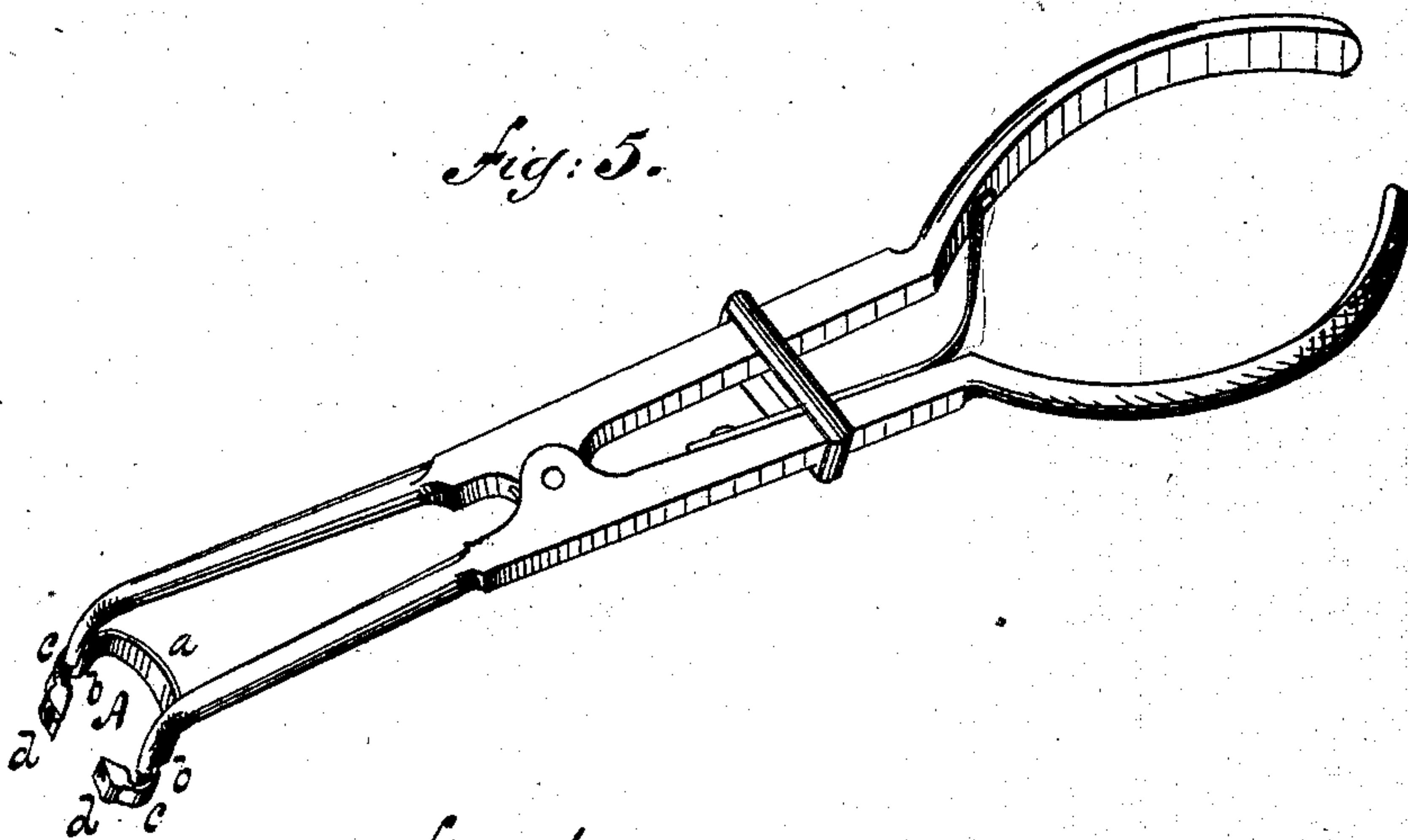


Fig: 4.



WITNESSES:

D. A. Carpenter.

Geo. M. Field,

INVENTOR,

Henry P. Booth,

BY *G. M. Field,*

ATTORNEY.

UNITED STATES PATENT OFFICE.

HENRY P. BOOTH, OF CHIPPEWA FALLS, WISCONSIN.

DENTAL MATRIX.

SPECIFICATION forming part of Letters Patent No. 388,619, dated August 28, 1888.

Application filed January 28, 1888. Serial No. 262,203. (No model.)

To all whom it may concern:

Be it known that I, HENRY P. BOOTH, of Chippewa Falls, in the county of Chippewa and State of Wisconsin, have invented a certain new and useful Improvement in Dental Matrices, of which I declare the following to be a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in clamping devices which are employed to facilitate the operation of filling certain cavities in teeth; and the invention consists of a spring-clamp constructed and combined with a matrix-plate, in the particular manner and for the purpose herein described, shown, and claimed.

In the accompanying sheet of drawings, Figure 1 is a top view of the clamp in use; Fig. 2, a side view of the same; Fig. 3, a side view of the plate whose edge is shown in Figs. 1 and 2; Fig. 4, a front view of the clamp, and Fig. 5 shows the clamp held by a pair of clamp-forceps.

Similar letters of reference indicate like parts in the several views.

When a tooth becomes so decayed that a portion of the side of the tooth is destroyed, the operation of filling the cavity is rendered more difficult than it ordinarily is when the cavity is entirely surrounded by the tooth, unless an artificial wall is supplied on that side to support the filling while it is being packed in the cavity. This wall consists of a thin strip of suitable material inserted between the decayed tooth and the one adjacent to it, the strip being pressed snugly against the edges of the opening to be filled. This invention relates particularly to the means by which this artificial wall is held in place, as will more fully appear from the description of the clamp, which is constructed as follows: A strip of steel, brass, or other elastic material is cut out and bent into the shape shown in Figs. 1, 2, 4, and 5, whereby a clamp, A, is formed with a central spring portion, *a*, and sides *b b*, extending downward from the central portion, *a*, and turned sharply inward at *c c*, and the clamp is provided with wedge-shaped jaws *d d*, which may consist of separate pieces attached to the clamp, or may be made integral parts of it. The bends *c c* are adapted to receive the legs of clamp-forceps, by means of which the clamp may be conveniently applied to and removed from the work.

The clamp so constructed is used in the operation of filling the cavity in the following manner: Between the decayed tooth C and the tooth D next in order on the side on which the cavity is located is inserted the thin matrix plate or wall *e*, the ends of which project slightly in both directions beyond the teeth, as shown in Fig. 1. The clamp is then taken up by the clamp-forceps and spread sufficiently to allow its wedge shaped jaws to be received between the plate *e* and the tooth D—one jaw on either side of the row of teeth—and when the clamp has been placed in this position the forceps are removed from it, whereupon the jaws of the clamp contract and wedge the plate *e* tightly against the edges of the cavity. The opening in the side of the tooth is thus closed, and the cavity can be plugged with filling in the same manner and with the same facility as though the material of the tooth formed a continuous wall around the cavity. Upon the completion of the operation of filling the tooth the clamp is removed by means of the forceps, when the plate *e* can be readily withdrawn.

In case there should also be a cavity in the side of the tooth D adjacent to the tooth C, a second plate *e* can be applied to this cavity, and the jaws of the clamp on being inserted between the two plates will hold each in its proper position, so that both cavities may be filled without further preparation of either matrix.

It will be observed that the reason why the sides *b* of the clamp are caused to extend downward from the central portion, *a*, is to enable that portion to bridge the row of teeth, as illustrated in the drawings.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In combination, an artificial wall for a dental cavity, consisting of a strip, *e*, placed between the teeth and substantially at right angles to the row of teeth, and two wedges, *d d*, inserted between the strip and tooth adjacent thereto, and provided with a connecting-spring, *a*, as and for the purpose described.

HENRY P. BOOTH.

In presence of—

E. DE F. BARNETT,
D. H. FOOTE.