

(No Model.)

H. WESTON.  
ARTIFICIAL TOOTH CROWN.

No. 277,392.

Patented May 8, 1883.

Fig. 1.

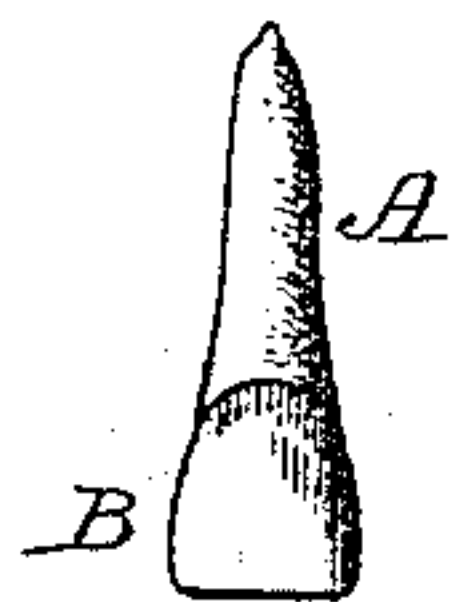


Fig. 2.

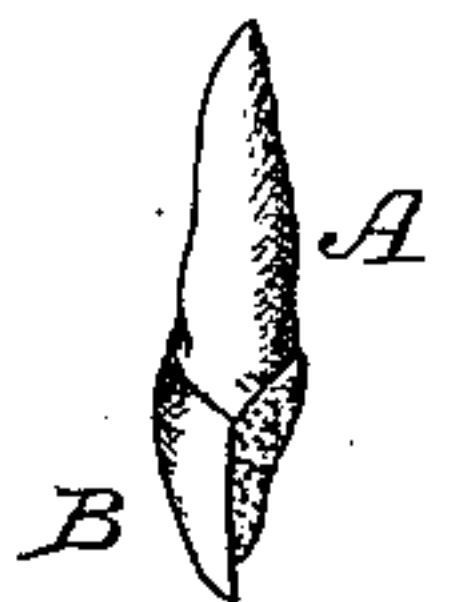


Fig. 3.

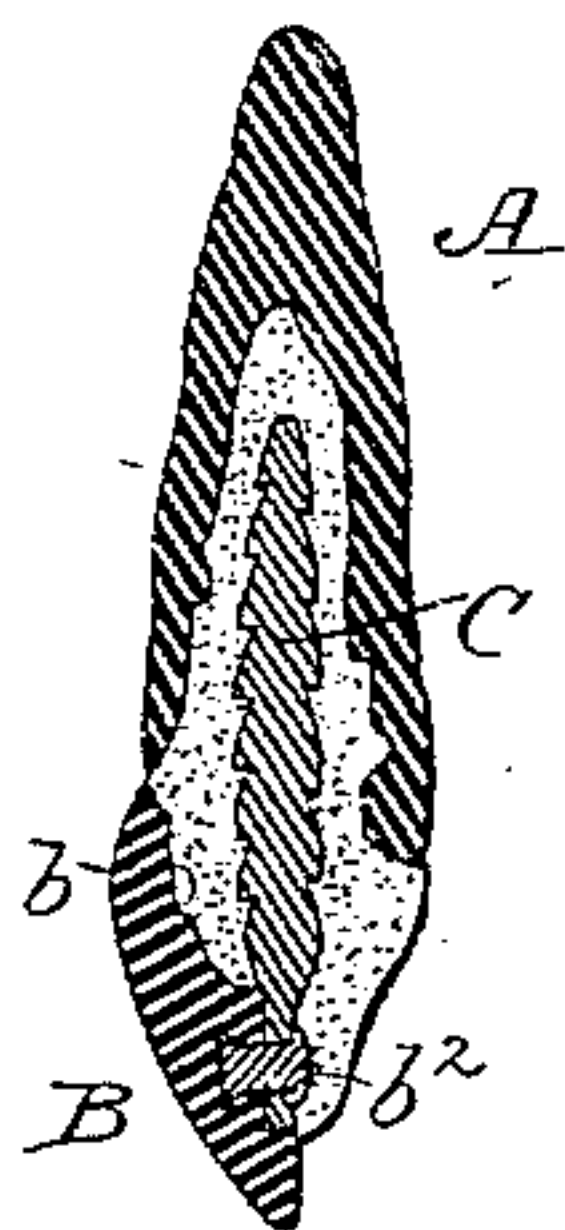


Fig. 4.

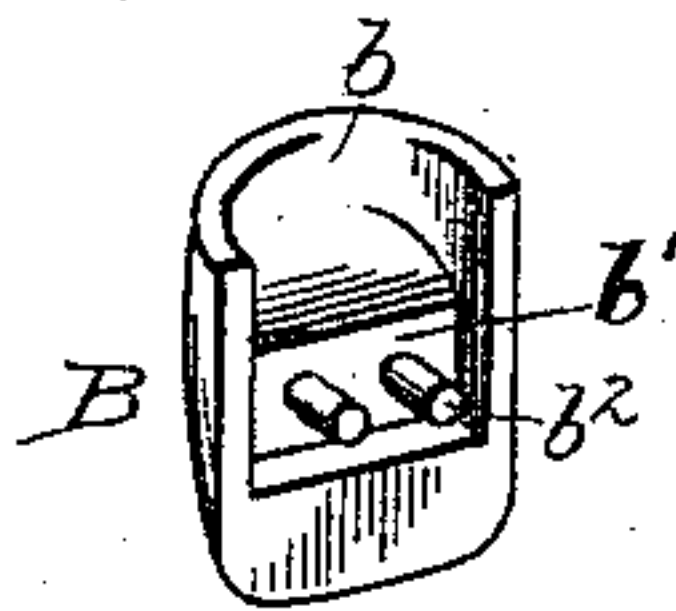


Fig. 5.

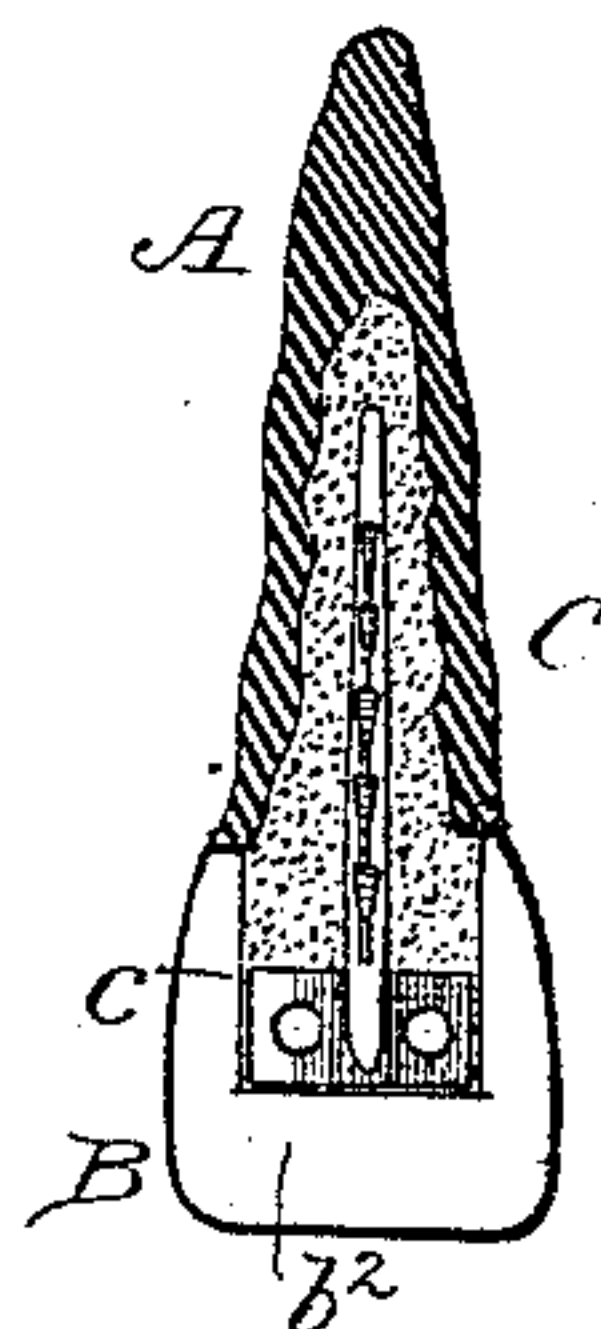


Fig. 6.



Witnesses.  
A. Ruppert.  
Wm. J. Peyton.

Inventor,  
Henry Weston,  
by his Atty's  
Baldern, Hopkins & Peyton.



# UNITED STATES PATENT OFFICE.

HENRY WESTON, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE  
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## ARTIFICIAL TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 277,392, dated May 8, 1883.

Application filed October 7, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY WESTON, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Artificial Tooth-Crowns for Application to Natural Tooth-Roots, and in the manner or process of setting or applying such crowns, of which the following is a specification.

My invention relates to artificial tooth-crowns for application to natural tooth-roots while in the mouth; and its object is to provide an improved and comparatively cheap crown for incisor and cuspid teeth, which may be easily, nicely, firmly, and durably secured to the natural root, and which, when so secured, will present a natural appearance, while the tooth will be capable of the same service as a wholly natural one.

The subject-matter claimed is particularly pointed out at the close of the specification.

In the accompanying drawings, which illustrate my improved crown and anchoring-post and the application of the crown to the natural tooth-root, Figure 1 is a front view of the crown and root of an incisor tooth, showing the front or labial surface of the crown; and Fig. 2 is a side view thereof. Fig. 3 is a longitudinal section through the root, the crown, and the anchoring-post of the crown, the section being taken through the crown, post, and root, from front to rear, or, in other words, from the labial to the palatal surfaces of the crown. Fig. 4 is a perspective view of the crown or shell detached, showing its recessed or concave back and the pins thereof, by which latter the crown is firmly united to the anchoring-post. Fig. 5 is a longitudinal section through the tooth-root, the line of section being at right angles to that of Fig. 3, the view showing clearly the back of the crown and the method of securing it to the root; and Fig. 6 is a perspective view of the anchoring-post detached. Figs. 3, 4, 5, and 6 are on an enlarged scale.

The tooth-root A is prepared in well-known ways by grinding or cutting the natural crown down to the neck of the tooth or to the level of the gum, and it is also hollowed out or provided with a longitudinal channel (if the pulp-canal be not large enough) for the reception

of the retaining material and of the anchoring-post of the crown, hereinafter mentioned. A crown, B, of the proper size and appearance, is selected and nicely fitted to the front edge of the prepared root. Said crown B is more properly a shell, and it has an outer convex or curved surface, like the natural labial surface of a cuspid or incisor tooth, while its edge which fits the root is comparatively thin, to enable a nice joint to be made. The back of the crown or shell is concave, recessed, or hollowed out, as at *b*, and above said recess, at or about the center of the crown, there is formed a step or depression, *b'*, from which project two pins, *b<sup>2</sup> b<sup>2</sup>*, preferably, as clearly shown in Figs. 3, 4, and 5. Said pins have heads at their inner ends, which in the process of making the crown, if of porcelain, which I prefer, are baked in the crown, so as to be rigidly fastened therein. The crown may of course be of any suitable material; but, as before stated, I prefer it to be made of the material usually employed in the manufacture of artificial teeth and tooth-crowns—to wit, of the substance known as “porcelain.” The outer ends of the pins *b<sup>2</sup> b<sup>2</sup>* project a short distance from the back of the crown, and over them is fitted a cross plate or bar, *c*, at the outer end of an anchoring-post, C, as shown in Figs. 3 and 5, said plate being provided with openings to receive the ends of the pins. The outer ends of the pins *b<sup>2</sup> b<sup>2</sup>*, after the cross-plate *c* is fitted over them, are riveted down, and the plate *c* then soldered firmly to the pins, whereby a rigid and stout connection is made between the crown and its anchoring-post. The shank of said post C is not exactly flat, but preferably approaches such a shape. It is preferably somewhat of a diamond shape in cross-section, being deeper from front to rear than it is wide. The front and back edges of the post are preferably toothed or serrated, and the outer end of the post approaches to a point for its more easy entrance or insertion into the channel in the tooth-root.

The root having been prepared, its channel or canal is preferably filled with a plastic filling or amalgam, which may be put into a soft state for its entrance into the root, while possessing the capacity of becoming “set” or hardened. Such plastic fillings or amalgams are well known in the art and are in common



use by dentists. The walls of the channel or opening in the root are preferably undercut or provided with retaining-surfaces, so that the filling, when set or hardened, is locked in the root and cannot be pulled out. While the retaining material or filling is yet soft the anchoring-post to which the crown is fastened is inserted in the root and forced in until the adjacent edges of the root and crown meet, (see Figs. 1, 2, 3, and 5,) said edges fitting together to make a nice joint. The filling not only surrounds the notched or shouldered shank of the post, but it also flows or is pressed into the recess or hollow at the back of the crown, as shown in Figs. 3 and 5. The filling at the back of the crown is rounded out or finished, as shown in Figs. 2 and 3, and as soon as it sets or hardens the crown will be rigidly and stoutly united to the root.

My invention affords an easy and desirable manner of applying artificial crowns to natural roots while in the mouth. The crown, when applied, presents a natural appearance and is durable and strong. The joints between the crown and root also will be perfectly tight, which is a great desideratum in setting artificial crowns.

Instead of embedding the post C in a soft filling, it may be inserted in the tooth-root

and the soft filling then applied to secure the post in the root; or, in place of the soft filling, gold or other desired filling may be used.

I claim as my invention—

1. An improved artificial tooth-crown, consisting of a shell having a vertically-recessed back and a pin or pins, whereby said crown may be firmly fastened to a post which is to secure it to a tooth-root.

2. The improved artificial tooth-crown hereinbefore set forth, consisting of a shell provided at its back with a depression to receive an anchoring-post, with a pin or pins to secure said crown and post together, and with a recess or enlargement of said depression next the base of the crown, whereby the crown is more readily fitted to the root, a firmer connection made, and a better joint secured.

3. The improved anchoring-post for tooth-crowns hereinbefore set forth, said post consisting of a shouldered or serrated shank having a cross plate or bar at one end, by which the post is rigidly connected with the crown.

In testimony whereof I have hereunto subscribed my name.

HENRY WESTON.

Witnesses:

WM. G. SMITH,  
S. A. COOK.