(No Model.)

W. S. HOW.

CROWN POST FOR ARTIFICIAL TEETH.

No. 602,582. Patented Apr. 19, 1898.

FIG. 4.

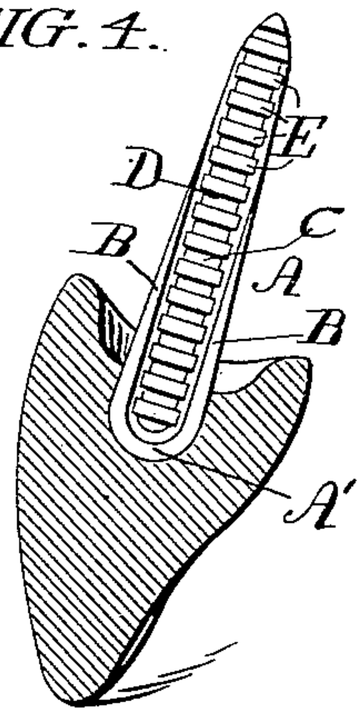


FIG. 2.

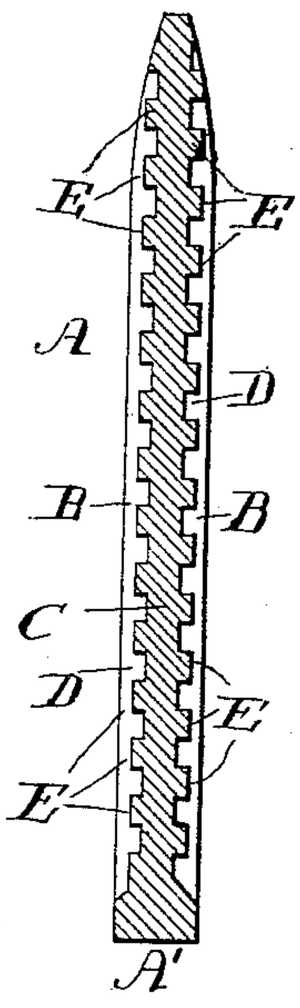


FIG. 1.

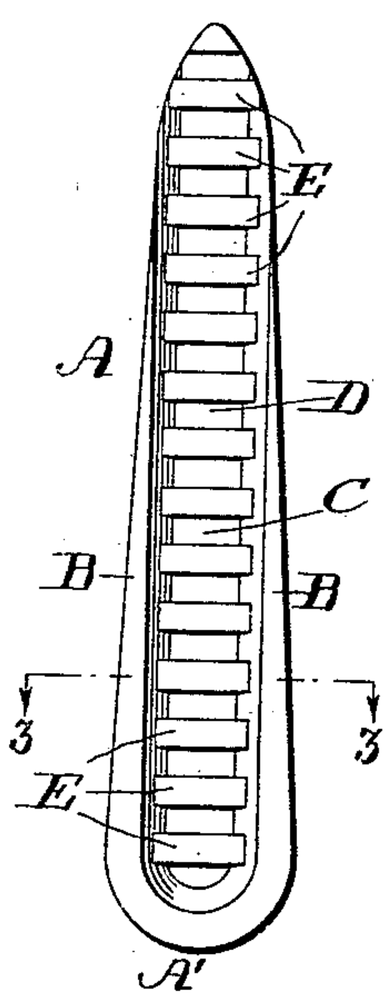


FIG. 5.

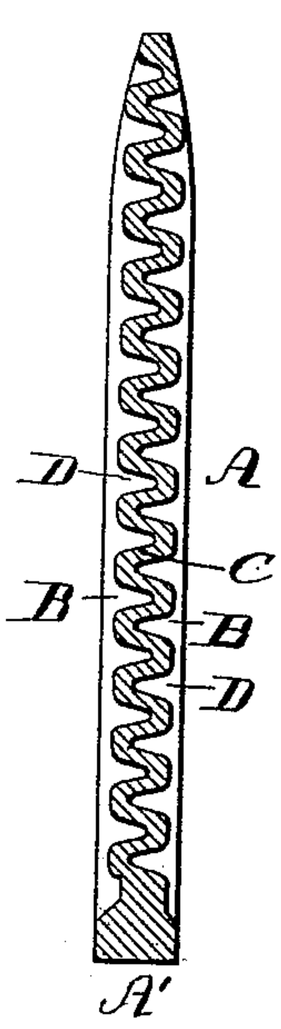
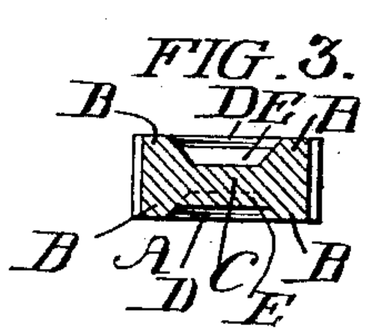


FIG. 3.



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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.

CROWN-POST FOR ARTIFICIAL TEETH.

SPECIFICATION forming part of Letters Patent No. 602,582, dated April 19, 1898.

Application filed December 21, 1897. Serial No. 662,809. (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 Crown-Posts for Artificial Teeth; 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 crown-posts for securing artificial tooth-crowns upon natural-tooth roots in place of lost natural crowns; and my object is to provide a crown-post of novel and useful form, as will be hereinafter fully described and then pointed out in the claim.

In the accompanying drawings, in which like letters refer to similar parts in the several views, Figure 1 is a view in side elevation of my improved crown-post on a scale many times larger than the post as actually made for use. Fig. 2 is a central longitudinal sectional view of the same. Fig. 3 is a view in cross-section of the same on line 3 3 of Fig. 1. Fig. 4 is a longitudinal sectional view of an artificial tooth-crown, showing my improved crown-post secured thereto by being baked therein. Fig. 5 is a central longitudinal sectional view of a crown-post of modified form.

My invention is an improvement on the crown-post used in connection with the well-known "Logan" tooth-crown, a patent for which post was granted to E. T. Starr August 24, 1886, as No. 347,975. The characteristic feature of said crown-post is that it is provided on its opposite sides with longitudinal grooves. The object of providing the post with the longitudinal grooves is to enlarge the surface of the post which comes in contact with the cement or filling in the socket or canal of the natural-tooth root for the purpose of increasing the resistance of the post to the pressure or strain to which it is subjected in use and also to afford the greatest amount of strength with the least amount of metal. In order to still further enlarge the surface of the post and increase its holding power, as well as to otherwise improve it, as will hereinafter more fully appear, I have provided the post with transverse ribs, grooves, or corrugations in addition to its longitudinal grooves.

The improved crown-post is herein shown as consisting of a flat tapered metallic pin or post A, the larger end A′ of which is adapted to be baked in an artificial tooth-crown of porcelain, as shown in Fig. 4. The edges of the post are thickened to constitute flanges B B, which are connected by a web C, the flanges extending on opposite sides of the web and also preferably curved and made continuous at the larger end of the post, which is shown as being rounded, the opposite end of the post being pointed. This formation, it will be seen, provides longitudinal grooves D D between the flanges, one on each side of the web. This is but one way of forming a crown-post with longitudinal grooves in accordance with the before-mentioned Starr patent, for said patent shows and describes a number of ways of embodying the principle of the invention covered by it.

Instead of making the web C, or that portion of the post between the thickened edges or flanges B, flat and smooth, as in said Starr patent, it is, in accordance with my invention, roughened or provided on one or both sides with projections. In the preferred form of crown-post illustrated in Figs. 1, 2, 3, and 4 the web is roughened or provided with projections by means of transverse ribs E, formed on opposite sides of the web. When both sides of the web are roughened or ribbed, the ribs on one side may alternate with those on the opposite side, although this is not essential. The web may, if desired, be roughened by corrugating it, the corrugations extending transversely of the post, this modified form of crown-post being illustrated in Fig. 5. In fact, the web may be transversely roughened or ribbed in any suitable desired manner without departing from the spirit of my invention. For example, the ribs or projections may extend obliquely relatively to the length of the pin. The web may be provided with a series of openings or perforations arranged longitudinally thereof or with a similar series

of studs or bosses, or the web may be roughened or ribbed on but one side, if preferred. While I prefer to use a tapered post of the general form shown in the drawings, I wish it to be understood that the post need not necessarily be tapered and that any of the forms shown in the said Starr patent or any other suitable forms of crown-post having longitudinal grooves may be provided with my roughened web to bring them within the scope of my invention.

Crown-posts have heretofore been provided with notched edges, and it is common for dentists to notch or barb the edges of the posts before they insert them in the root-canal; but such notching or barbing greatly weakens the post and also presents other objectionable features well known to dentists. By means of my improvement the desirable function of the usual notches or barbs is attained without in the least detracting from the strength of the post. Indeed, the transverse ribs, corrugations, or other projections tend to increase the strength of the post. It will be observed that the outside edges of the post, formed by the thickened portions or flanges B B, are perfectly smooth and that the sides of the post, formed by the edges of these flanges, are also smooth and without barbs or notches. The advantage of this construction, in addition to the increased holding power conferred upon the post without diminishing its strength, is that there is nothing to prevent the ready insertion of the post in the prepared root canal or socket or to interfere with the fit or contact of the edges of the post with the walls of the socket, as will be understood by dentists. A still further advantage of the roughened or ribbed web is that it not only affords a secure connection between the post and the cement in the root canal or socket, but it also contributes toward a stronger hold between the post and the porcelain tooth-crown, in which one end of the post is baked.

I claim as my invention—

A new and useful article of manufacture consisting of a crown-post provided with longitudinal edge flanges and a roughened or ribbed web between said flanges, substantially as and for the purpose set forth.

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

WOODBURY STORER HOW.

Witnesses:
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