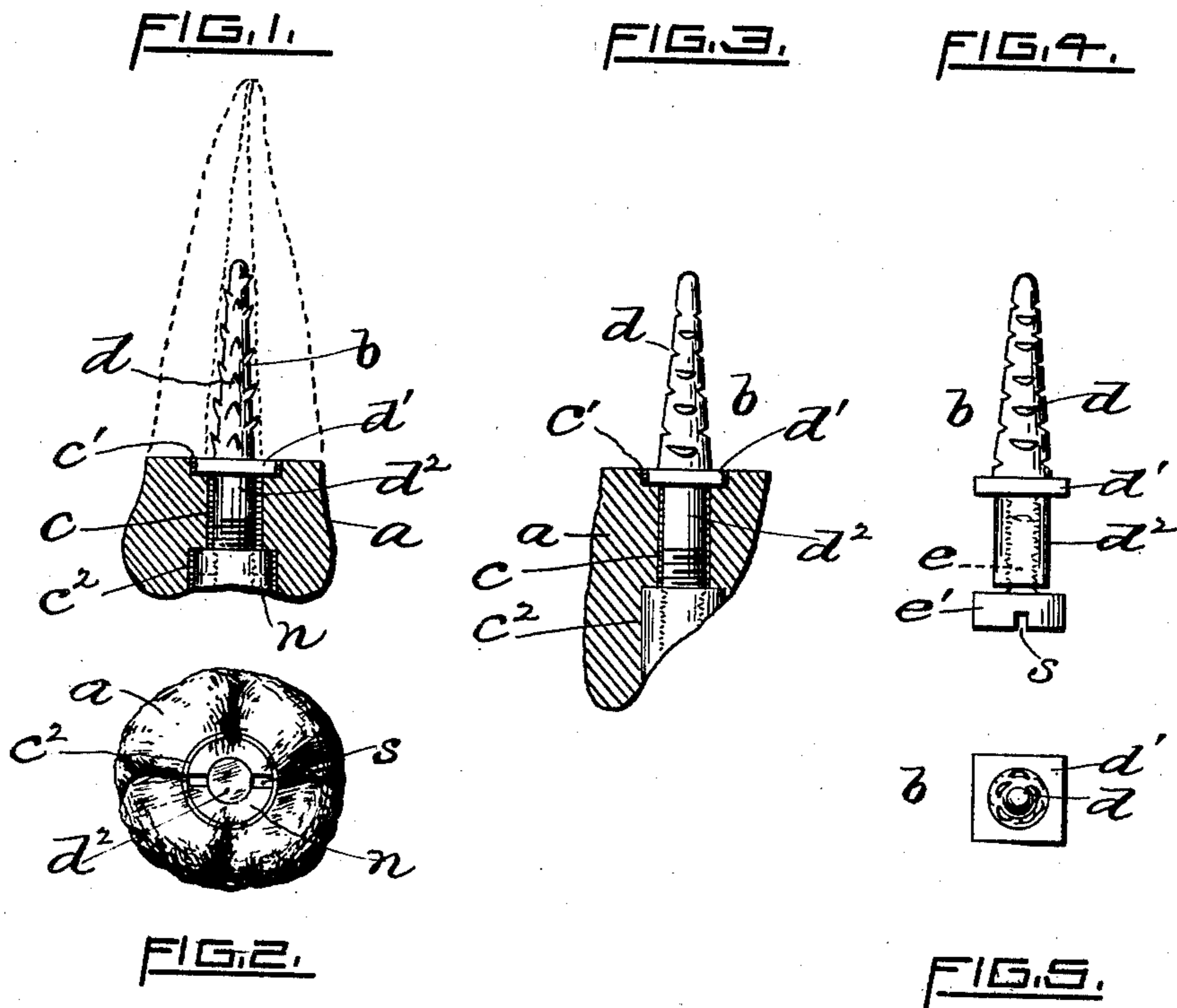


No. 756,506.

PATENTED APR. 5, 1904.

W. N. KIDDER.
ARTIFICIAL TOOTH CROWN.
APPLICATION FILED NOV. 20, 1903.

NO MODEL.



WITNESSES.

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WILLIAM N. KIDDER, OF PROVIDENCE, RHODE ISLAND.

ARTIFICIAL TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 756,506, dated April 5, 1904.

Application filed November 20, 1903. Serial No. 181,945. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM N. KIDDER, a citizen of the United States of America, and a resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Artificial Tooth-Crowns, of which the following is a specification.

My invention relates to improvements in artificial tooth-crowns and means for securing the same to the natural root of the tooth.

The object I have in view is to simplify and cheapen the cost of crown-repair work—that is to say, by means of my present improvement a new crown may be quickly and easily substituted for a broken one without removing the pin from the root. Moreover, the first cost of my improved crown and pin is not increased, while the advantages secured in fitting, &c., are manifold.

In carrying out my invention I employ a porcelain tooth-crown having a hole extending vertically therethrough, the end portions of the hole being enlarged laterally and recessed to form oppositely-disposed shoulders. In order to secure the crown to the natural tooth, I use a metallic plug or pin of novel construction, the same having the upper stem portion adapted to be inserted and cemented in the root's cavity in any well-known manner. The other portion of said pin has a rigid or integral collar member adapted to be seated in the upper recess of the crown and a screw-threaded shank arranged to pass freely down through the hole in the crown. A nut or analogous member is then screwed to the shank, the former at the same time being seated in the lower recess of the crown, thereby rigidly clamping or securing the latter to the plug, all as will be more fully hereinafter set forth and claimed.

In the accompanying sheet of drawings, Figure 1 is a longitudinal sectional view, in enlarged scale, showing my improvement adapted to bicuspid or molar teeth. Fig. 2 is an inverted plan view of the same. Fig. 3 is a sectional view similar to Fig. 1, showing the device as employed for cuspid teeth. Fig. 4 is a side elevation showing a modification of

the plug or fastening device, and Fig. 5 is a plan view of it.

In the drawings, *a* designates my improved artificial tooth-crown, the same being made of porcelain or other suitable vitreous material. The upper or proximate face of the crown may be flat or otherwise adapted to bear uniformly against that of the tooth's root, substantially as indicated in Fig. 1. At or near the center of the crown a vertical hole or opening *c* is formed entirely therethrough, its upper portion being enlarged laterally and forming a suitably-shaped shouldered recess *c'*. The opposite or lower part of the crown has a similar recess *c''*, as clearly shown. The said opening is molded or formed in the crown while the latter is in a plastic state and before being "fired" or baked.

The metallic plug or pin member *b* has an elongated stem portion *d*, the same being suitably corrugated or roughened, thereby when inserted and cemented in the tooth (see dotted lines, Fig. 1) insuring a better retaining effect. This feature is, however, well known in devices of this class. The lower part of the plug has a shank *d''*, adapted to pass freely through the hole *c* of the crown. At the junction of the said shank and stem portions the plug is provided with an integral suitably-shaped collar *d'*, arranged to be seated in the upper recess *c'* of the crown. The said shank *d''* is screw-threaded and provided with a removable nut *n*, the latter when in use being seated in the lower recess *c''*, the arrangement being such that the plug may be rigidly secured to the crown, as clearly shown.

The collar *d'* and corresponding recess *c'* may be square or polygonal, thus preventing the crown from axial movement. I prefer to make the nut *n* cylindrical, its outer end having a notch or slot *s* to receive a screw-driver. In lieu of a nut the shank *d''* (see Fig. 4) may be tapped to receive a screw *e*, the head *e'* of the latter in such case being adapted to enter the lower recess *c''* of the crown and bear snugly against the corresponding shoulder.

I would add that after the plug *b* has been secured to the natural tooth the previously-prepared crown *a* may be readily placed in

position and firmly secured to the plug by means of the nut *n*, suitable cement being first applied to the face of the crown and its opening, thereby further strengthening the fastening and at the same time excluding air therefrom.

In case a portion of the nut and shank extends below the crown the same may be cut away in any suitable manner to conform to the crown's surface, as indicated in Figs. 1 and 3.

I do not claim, broadly, as my invention an artificial tooth-crown having an opening extending therethrough to receive the retaining-post.

I claim as my invention and desire to secure by United States Letters Patent—

1. In combination with an artificial tooth-crown having an opening extending there-through and enlarged at its ends, a retaining-

post having an integral collar intermediate its ends, said post having one of its ends threaded, said collar seating in one of said opening ends, and means for engagement with said threads whereby said collar may be drawn inwardly to firmly engage said crown.

2. In combination with an artificial tooth-crown having an opening therein, a retaining-post extending through said opening and having a collar intermediate its ends to engage one end of said crown, and means to engage one end of said post and the opposite end of said crown to draw said collar into firm engagement with said crown.

Signed at Providence, Rhode Island, this 12th day of November, 1903.

WILLIAM N. KIDDER.

Witnesses:

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