

F. Z. HANSCOM.
ARTIFICIAL TOOTH.
APPLICATION FILED JAN. 31, 1910.

976,798.

Patented Nov. 22, 1910.

Fig. 1

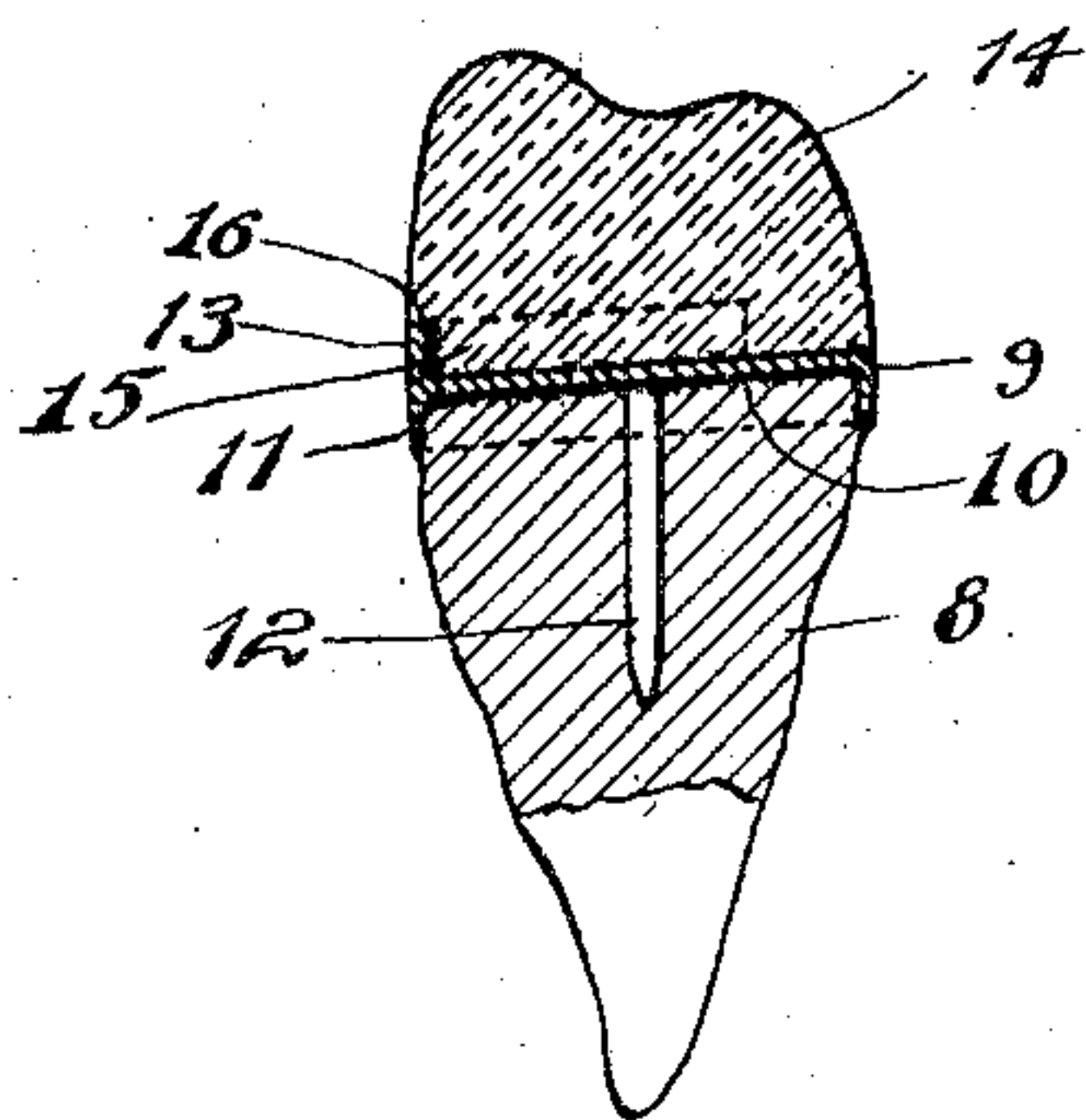


Fig. 2

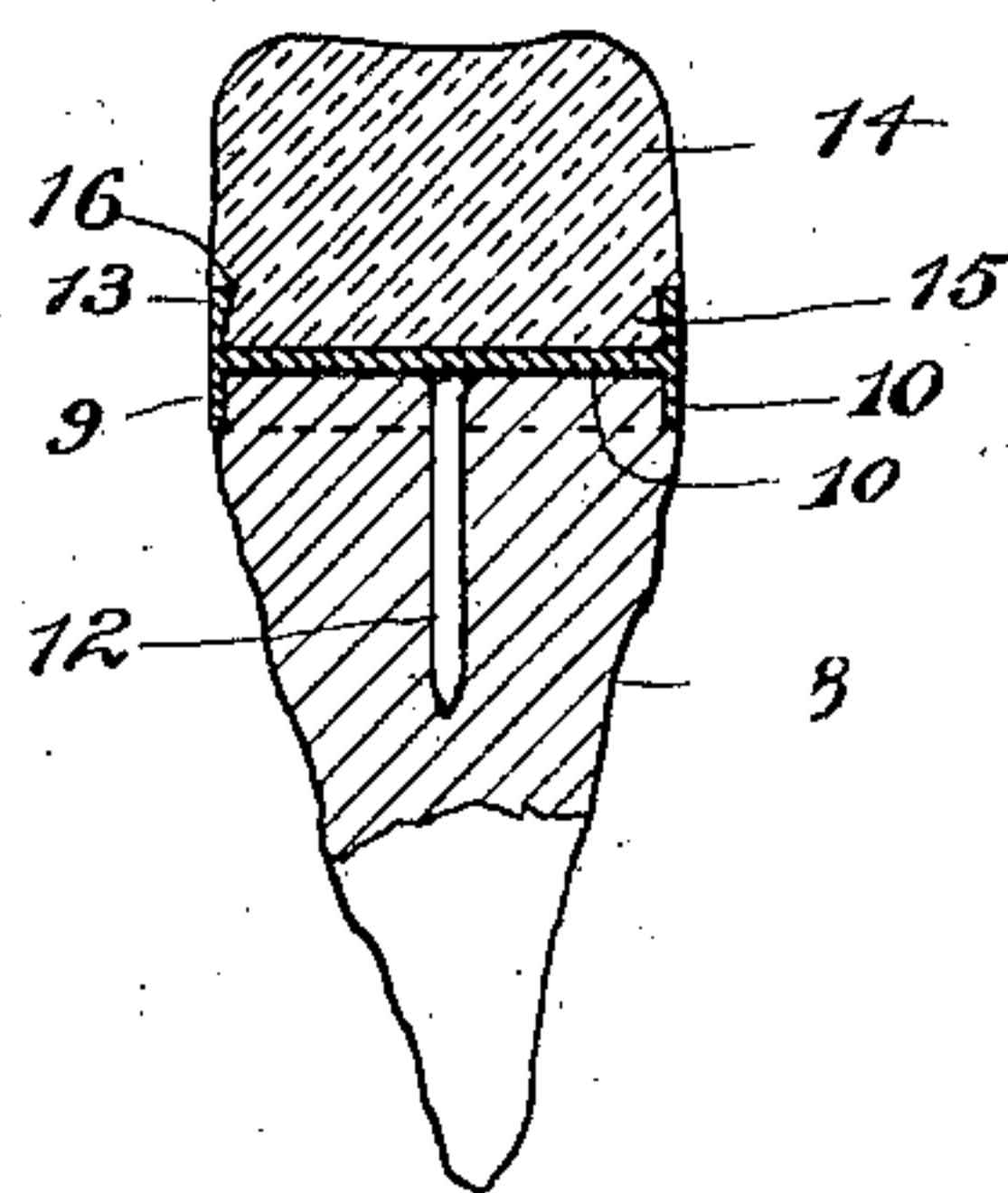


Fig. 3

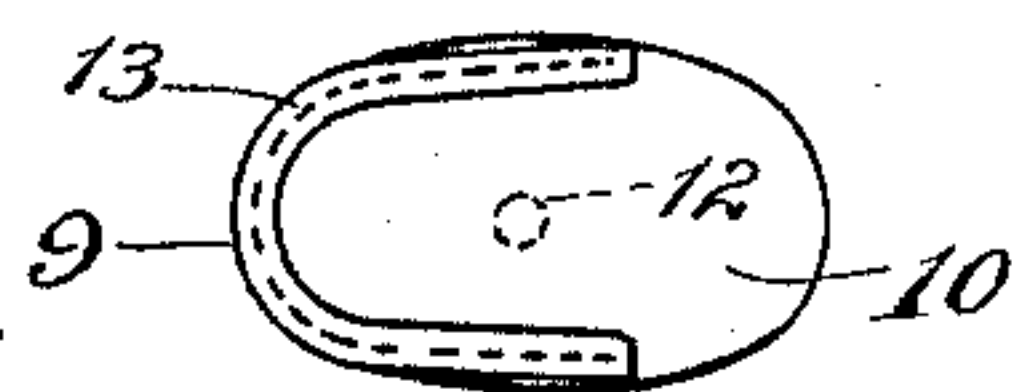


Fig. 4

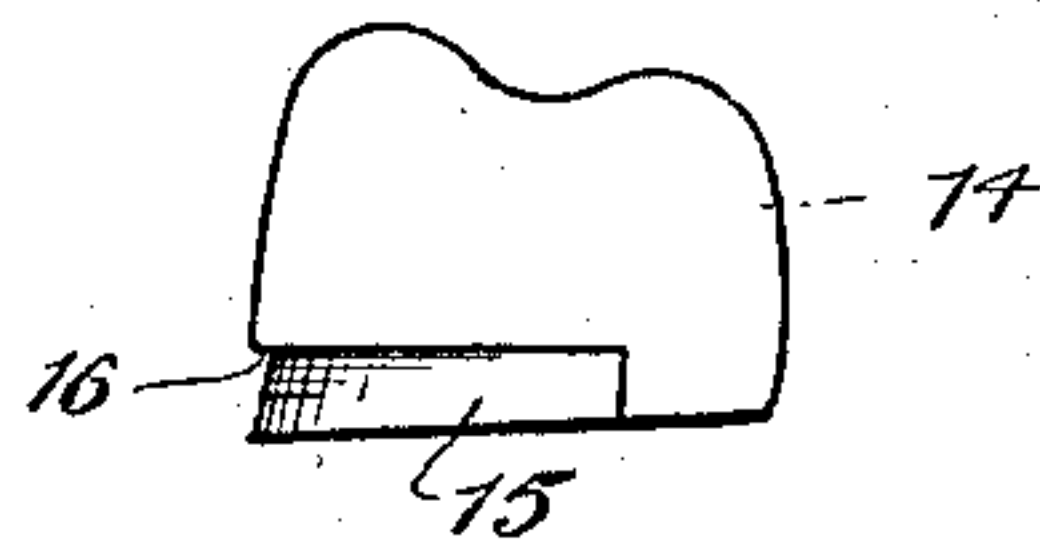
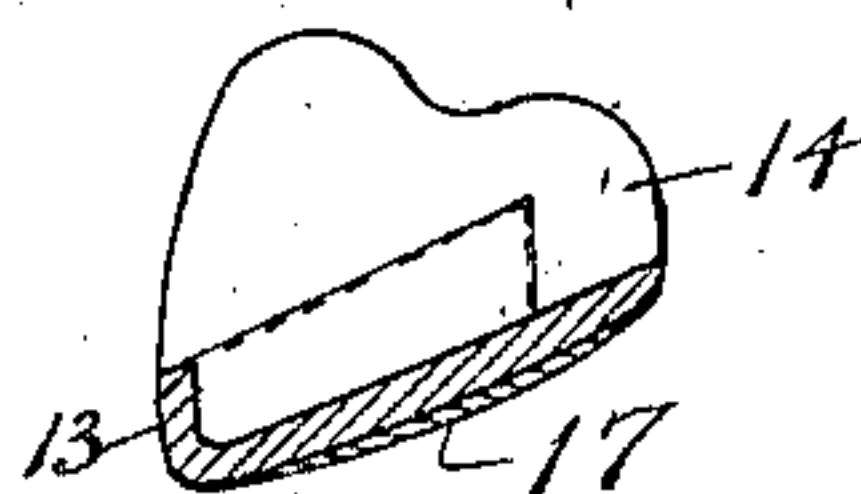


Fig. 5



Witnesses:

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Att'y.

UNITED STATES PATENT OFFICE.

FRANK Z. HANSCOM, OF CHICAGO, ILLINOIS.

ARTIFICIAL TOOTH.

976,798.

Specification of Letters Patent.

Patented Nov. 22, 1910.

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To all whom it may concern:

Be it known that I, FRANK Z. HANSCOM, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Artificial Teeth, of which the following is a specification.

This invention relates to teeth formed of porcelain or other suitable material, and to means for holding the same either in connection with crown-work or bridge-work.

It is particularly applicable to posterior teeth and provides, among other things, a novel method of supporting said teeth at the cervical ends.

Among the objects of the present invention are to provide teeth constructed in such form that a relatively large body of porcelain or other suitable material may be used for each tooth, without being punctured or divided in order to support the same and without having pins or posts inserted therein. By having a relatively large body of porcelain in each tooth, and properly proportioning the same, the teeth are given greater strength and resistance; and by means of my novel form of support, the teeth are given a large base to withstand the longitudinal thrust and are securely held in position, while at the same time they may be readily removed and replaced in case of accident.

I have illustrated my invention in the accompanying drawings embodying different forms thereof, in which—

Figure 1 is a sectional view showing a root provided with a crown and support embodying this invention; Fig. 2 is a sectional view taken at right angles to Fig. 1; Fig. 3 is a top plan view of the coping or metallic supporting portion shown in Fig. 1; Fig. 4 is a side view of the tooth or crown removed from its support; Fig. 5 is a sectional view showing the arrangement when used for bridge-work.

As shown in these drawings, 8 indicates the root of a tooth which is provided with a metallic coping or cap-like member 9, this member having a substantially horizontal plate or web 10 and a depending flange or band 11 engaging closely with the top of the root. In order to further secure the coping in position, it may also be provided with a pin or post 12 extending centrally down into the root and firmly cemented therein. When used for posterior teeth, I prefer to

have the web or plate 10 pitch downwardly somewhat from the lingual side of the tooth toward the buccal side. Around the periphery of the plate 10, on the buccal side of the tooth and extending nearly around to the lingual side, is an upwardly extending band 13, preferably undercut or recessed on its inner side as indicated in Figs. 1 to 3, inclusive. This band is also preferably of uniform width but may be beveled or tapered in a vertical direction. The tooth or crown 14 is made with its upper portion conforming to the particular tooth which it is adapted to replace, and with its lower portion curved and undercut so that it may be pressed into close contact with the plate 10 and the upwardly extending band 13 of the coping, and when pressed into position, will be securely held by said plate and band, cement or other suitable material being used to assist in holding the crown or tooth in position. It will be particularly noted that the lower curved and undercut portion 15 extends around the buccal side of the tooth, and in fact, around as far as the band 13 extends, with a shoulder 16 resting on the upper edge of the band 13, so that the outer surface of the crown is substantially flush with the outer surface of the locking band 13. On account of the depression of the plate 10 toward the buccal or outer side of the tooth, it permits the crown 14 to be made exceedingly strong and substantial on that side of the tooth, and the shoulder 16 further assists in supporting and protecting such crown or tooth. It will be readily seen that not only does this form of coping or support, when combined with my novel form of tooth, provide a rigid, strong and substantial artificial member, but it provides an arrangement whereby the coping may be first placed in position and then the tooth or crown readily inserted. Furthermore, the tendency when the tooth is in normal use is to force the crown more securely into its seat or support, rather than to loosen the same. And it will also be observed that in case the tooth or crown portion 14 becomes broken, or for any reason it is desired to replace the same, it may be readily removed and a new crown inserted in its place. When used for bridge-work the supports or sockets are joined together by means of soldering, brazing, or in any suitable manner, and the material used for this purpose may be flowed or spread along the bottoms of the

plates or sockets as indicated at 17, Fig. 5, in which case it forms additional backing or reinforcement for the supporting members or sockets.

5 Having thus described my invention, what I claim and desire to secure by Letters Patent is:

1. An artificial tooth having its cervical end undercut around a portion of the periphery thereof, such undercut portion tapering or receding from the outer or buccal side of the tooth toward the lingual side thereof.

15 2. The combination of a coping having an undercut, upwardly extending flange extending partially around the periphery thereof, such flange receding or tapering

from one side of the coping toward the other side, and a tooth having an undercut portion adapted to engage with the plate and flange 20 of said coping.

3. The combination with a support or coping having an undercut flange, said flange being tapered or receding from one side of the coping toward the other side 25 thereof, and a tooth having its end undercut to engage with said coping and flange, the shoulder formed by the undercutting of the tooth, resting upon the upper edge of said flange.

FRANK Z. HANSCOM.

Witnesses:

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