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PATENTED MAY 12, 1908.

L. & H. BERNSTEIN.

ARTIFICIAL TOOTH.

APPLICATION FILED FEB. 12, 1908.

Fig. 1.

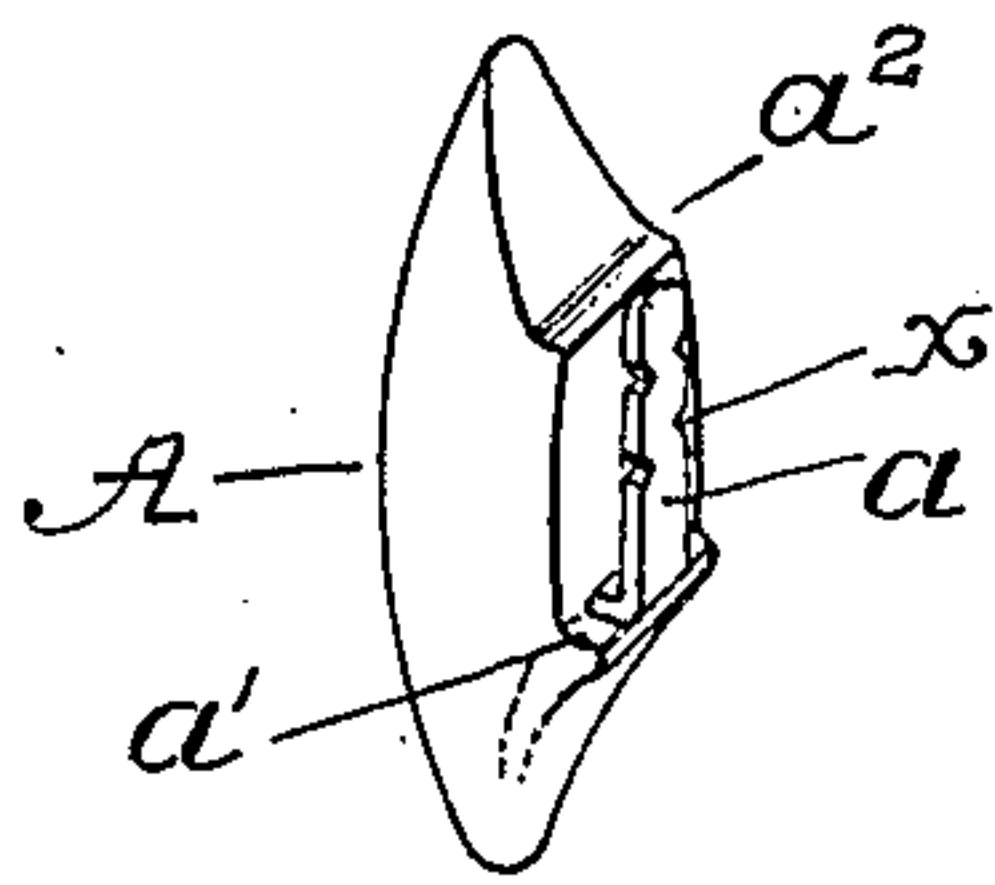


Fig. 2.

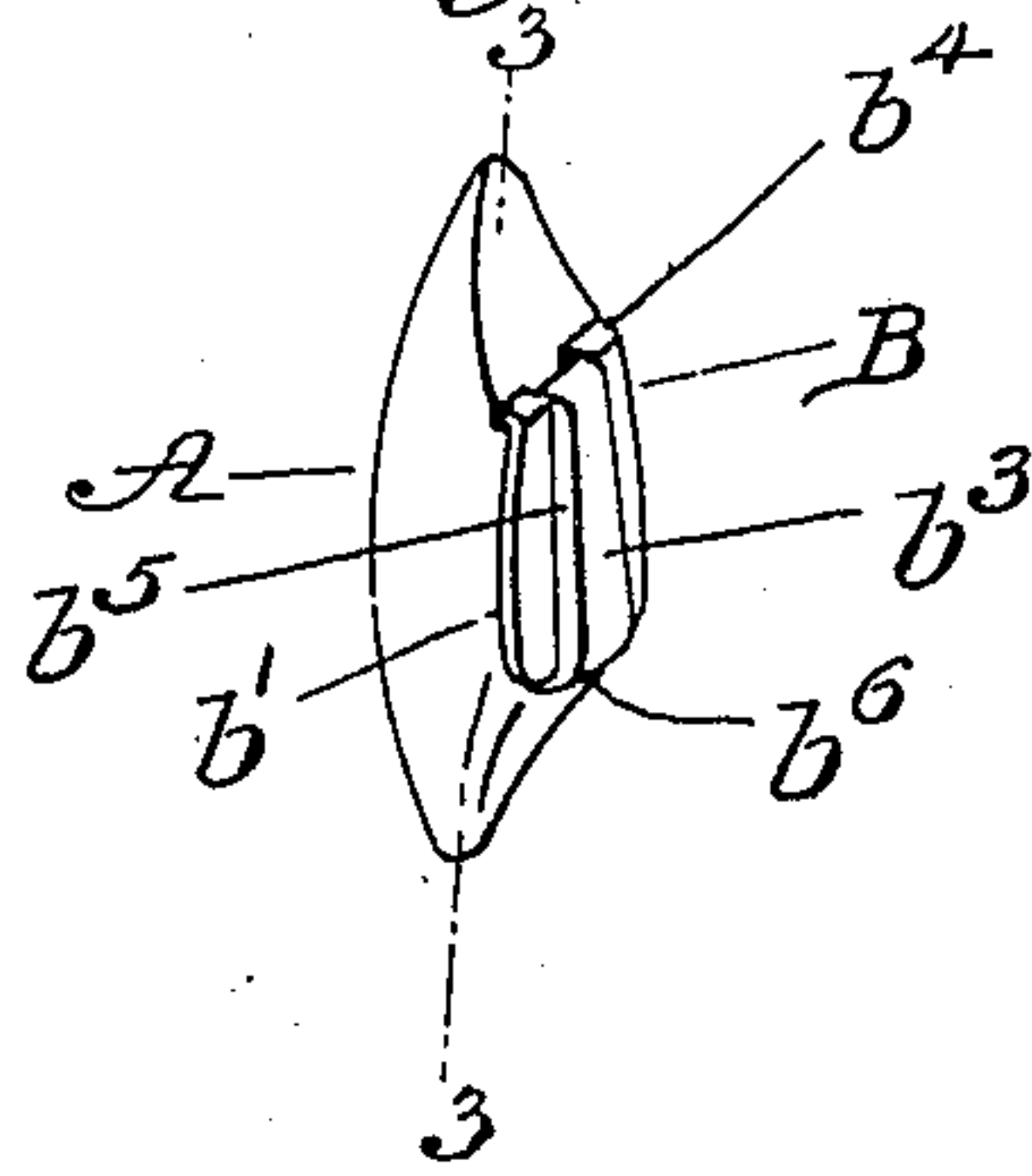


Fig. 3.

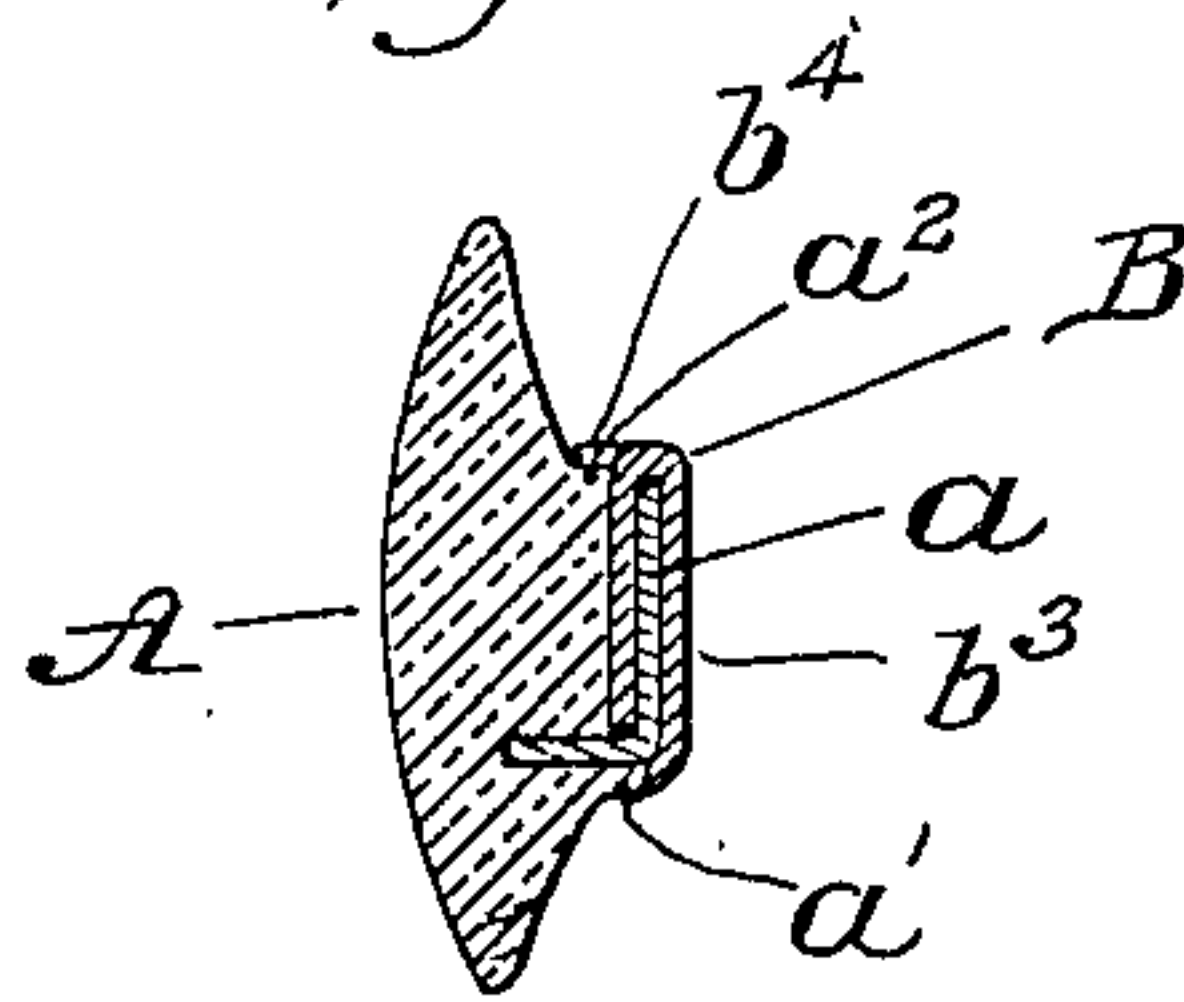


Fig. 4.

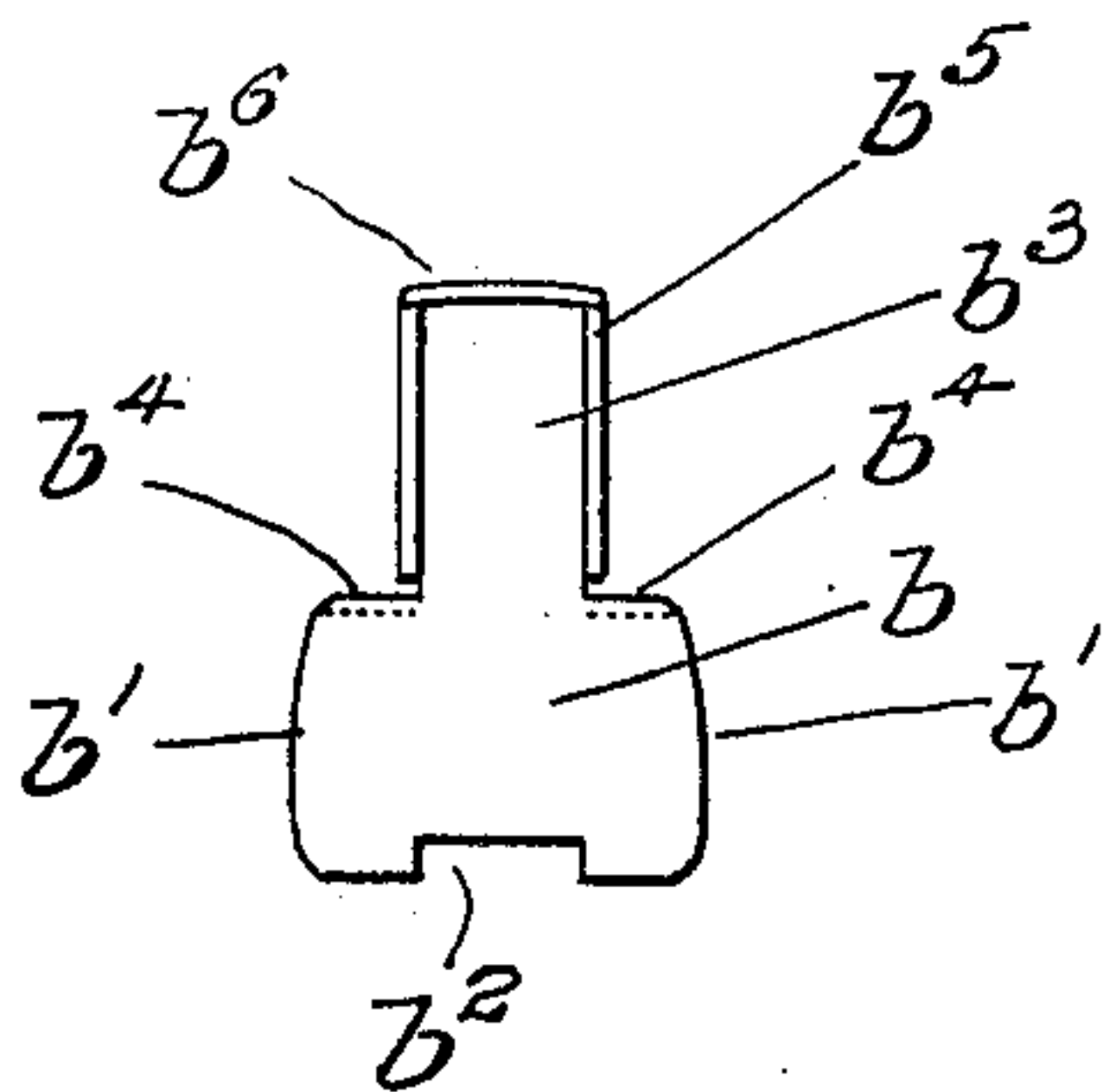


Fig. 5.

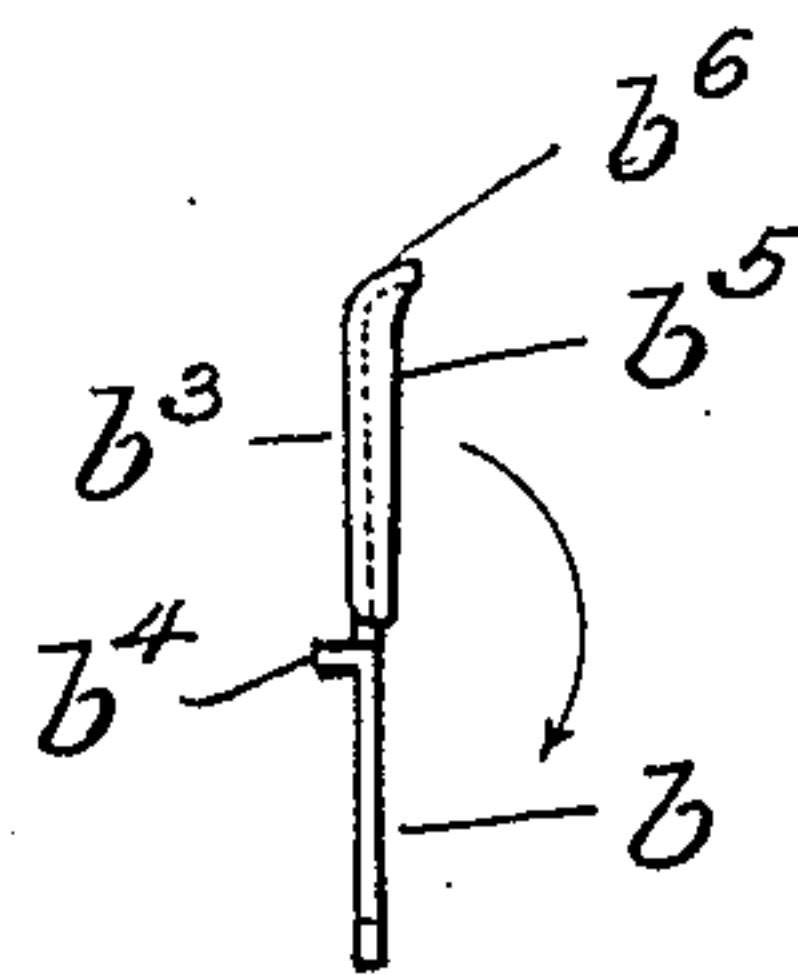
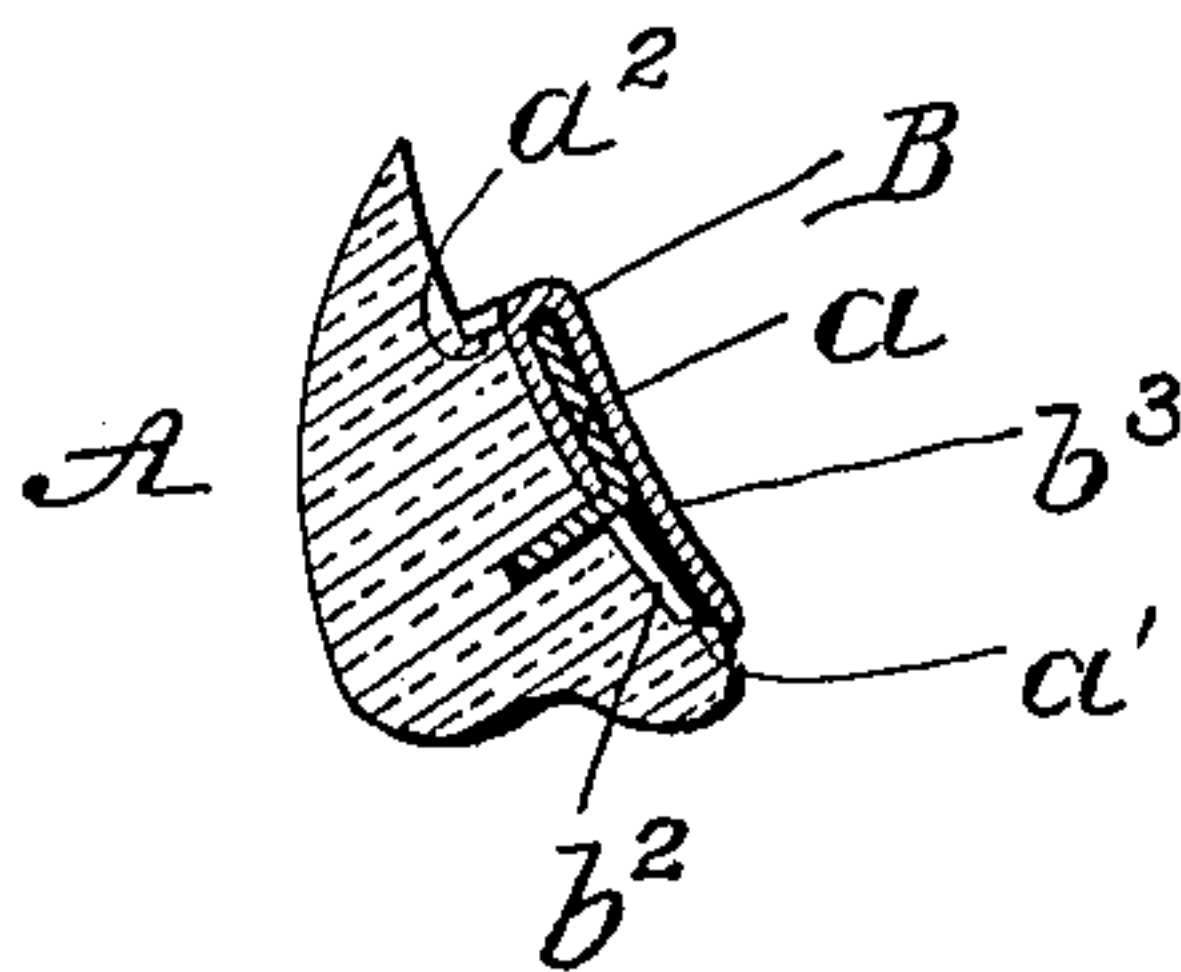


Fig. 6.



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# UNITED STATES PATENT OFFICE.

LOUIS BERNSTEIN AND HENRY BERNSTEIN, OF NEW YORK, N. Y.

## ARTIFICIAL TOOTH.

No. 887,577.

Specification of Letters Patent.

Patented May 12, 1908.

Application filed February 12, 1908. Serial No. 415,473.

*To all whom it may concern:*

Be it known that we, LOUIS BERNSTEIN and HENRY BERNSTEIN, citizens of the United States, and residents of the city, county, and State of New York, have invented certain new and useful Improvements in Artificial Teeth, of which the following is a specification.

This invention relates to that class of artificial teeth in which a facing of porcelain or other refractory substance is detachably secured to a metallic backing; our object being to provide for such teeth a simple and efficient construction whereby a firm and stable connection shall be attained, although permitting the easy separation of the members as occasion may require. To this end the invention comprises various novel structural features of the facing and backing, as will be hereinafter described and claimed.

In the drawings—Figure 1 is a perspective view of an anterior tooth facing, to which our improvement is applied. Fig. 2 is a similar view of the same, as connected to the backing. Fig. 3 is a vertical section, as on the line 3—3 of Fig. 2. Fig. 4 is a plan of the blank for the backing. Fig. 5 is an edge view thereof. Fig. 6 is a vertical section of a posterior tooth embodying our invention.

A represents a facing of porcelain or the like, on the rear wall of which is fixed an upwardly extending post  $a$  which is disposed slightly beyond and parallel with the wall of the facing. This post comprises one limb of an angular piece of metal whereof the other limb is embedded and baked within the body of the facing. The rear wall of the facing is provided with two horizontal shoulders  $a'$ ,  $a''$ , the former of which extends below and supports the base or angle of the post, while the other shoulder  $a''$ , lies slightly above and forwardly of the free end of the post.

B represents a metallic backing for the facing. The blank for this backing is stamped out of a plate as indicated in Figs. 4 and 5, to constitute the body  $b$  having the side wings  $b'$ , lower recess or notch  $b^2$ , and upper extension  $b^3$ , the upper edges of the side wings being bent forwardly to constitute lips  $b^4$  and the side and top edges of the extension being bent rearwardly to constitute flanges  $b^5$ ,  $b^6$ , respectively. The width and depth of the recess or notch in the body are equal to the width and thickness respectively of the basal part of the post, or substantially so; the vertical length of each of the side wings is equal

to the distance between the shoulders  $a'$ ,  $a''$ , or substantially so, and the internal width and height of the flanged extension  $b^3$  are equal to the width and height respectively, of the post, or substantially so.

The blank having been formed as above described, the flanged extension  $b^3$  is bent or folded down upon the body of the plate to constitute therewith a longitudinal pocket or casing, as indicated in Figs. 2 and 3. This completes the backing.

To apply the porcelain facing to the metallic backing, the post of the former is hooked or inserted into the pocket or casing by way of the opening formed by the notch  $b^2$ , the parts being pressed into close contact with each other so that the lower portions of the side wings will snugly embrace the angular base of the post and rest squarely upon the shoulder  $a'$ ; that the flange or lip constituting the lower portion of the pocket or casing will take against the lower edge of such shoulder, and that the lips on the upper edges of the respective wings will rest firmly upon the upper shoulder  $a''$ . A suitable liquid cement is interposed between the facing and the backing, and introduced into the interior of the pocket or casing, so as to afford a detachable bond of union between the parts. Preferably the lateral edges of the post are notched or serrated, as at X, to insure the incorporation of the cementing medium therewith.

In Fig. 6 is illustrated a vertical section of a posterior tooth to which our invention is applied. In this construction the post is preferably secured to the back of the facing A, some distance above the lower shoulder  $a'$ , and the notch  $b^2$  in the backing is made of a sufficient depth to permit the side wings of the backing to rest on said shoulder. In other respects the construction is substantially similar to that first above described.

By our invention as hereinbefore described, it is obvious that a rigid and substantial connection of the facing with the backing is secured,—relative movement of the two members being prevented by the efficient interlocking thereof,—and yet the facing may be readily removed from the backing and renewed as occasion may require.

We do not limit our invention to the specific structural details shown and described, but we claim—

1. An artificial tooth comprising a facing of porcelain or the like, having affixed



thereto the lower or basal part of an upwardly extending post which lies slightly beyond and parallel with the rear wall of the facing, or substantially so, in combination  
5 with a metallic backing consisting of a plate having imposed thereon a longitudinally flanged or channeled portion which constitutes a pocket co-extensive with the post, the mouth of said pocket being at its lower  
10 end, whereby the post may be inserted into the pocket and confined therein throughout its length.

2. An artificial tooth comprising a facing of porcelain or the like, having affixed there-  
15 to the lower or basal part of an upwardly extending post which lies slightly beyond and parallel with the rear wall of the facing, or substantially so, in combination with a metallic backing consisting of a plate having  
20 imposed thereon a longitudinally flanged or channeled portion which constitutes a pocket co-extensive with the post, said plate being provided at its lower edge with a notch or recess leading to the pocket, whereby the  
25 post may be inserted into the pocket and confined therein throughout its length, and the lower or basal end of the post be embraced by the notched portion of the plate.

3. An artificial tooth comprising a facing,  
30 of porcelain or the like, having on its rear wall a shoulder, and also an upwardly extending post, in combination with a metallic backing consisting of a plate having a flanged extension which is imposed upon the body of  
35 the plate to constitute a pocket or casing to

receive the post, and having also a portion to engage the shoulder on the facing.

4. An artificial tooth comprising a facing, of porcelain or the like, having on its rear wall a shoulder, and also an upwardly ex- 40  
tending post, in combination with a metallic backing consisting of a plate having a flanged extension which is imposed upon the body of the plate to constitute a pocket or casing to receive the post, said plate having a notched 45  
or recessed portion to embrace the base of said post, and also a portion to engage the shoulder on the facing.

5. An artificial tooth comprising a facing, of porcelain or the like, having on its rear 50  
wall upper and lower shoulders, and also an upwardly extending post, in combination with a metallic backing consisting of a plate having a flanged extension which is bent upon the body of the plate to constitute a 55  
pocket or casing to receive said post, said plate having side wings which rest upon the lower shoulder, and also a notched portion which embraces the base of said post, and the said wings having lips which engage the 60  
upper shoulder.

Signed at New York in the county of New York and State of New York this 8th day of February A. D. 1908.

LOUIS BERNSTEIN.  
HENRY BERNSTEIN.

Witnesses:

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