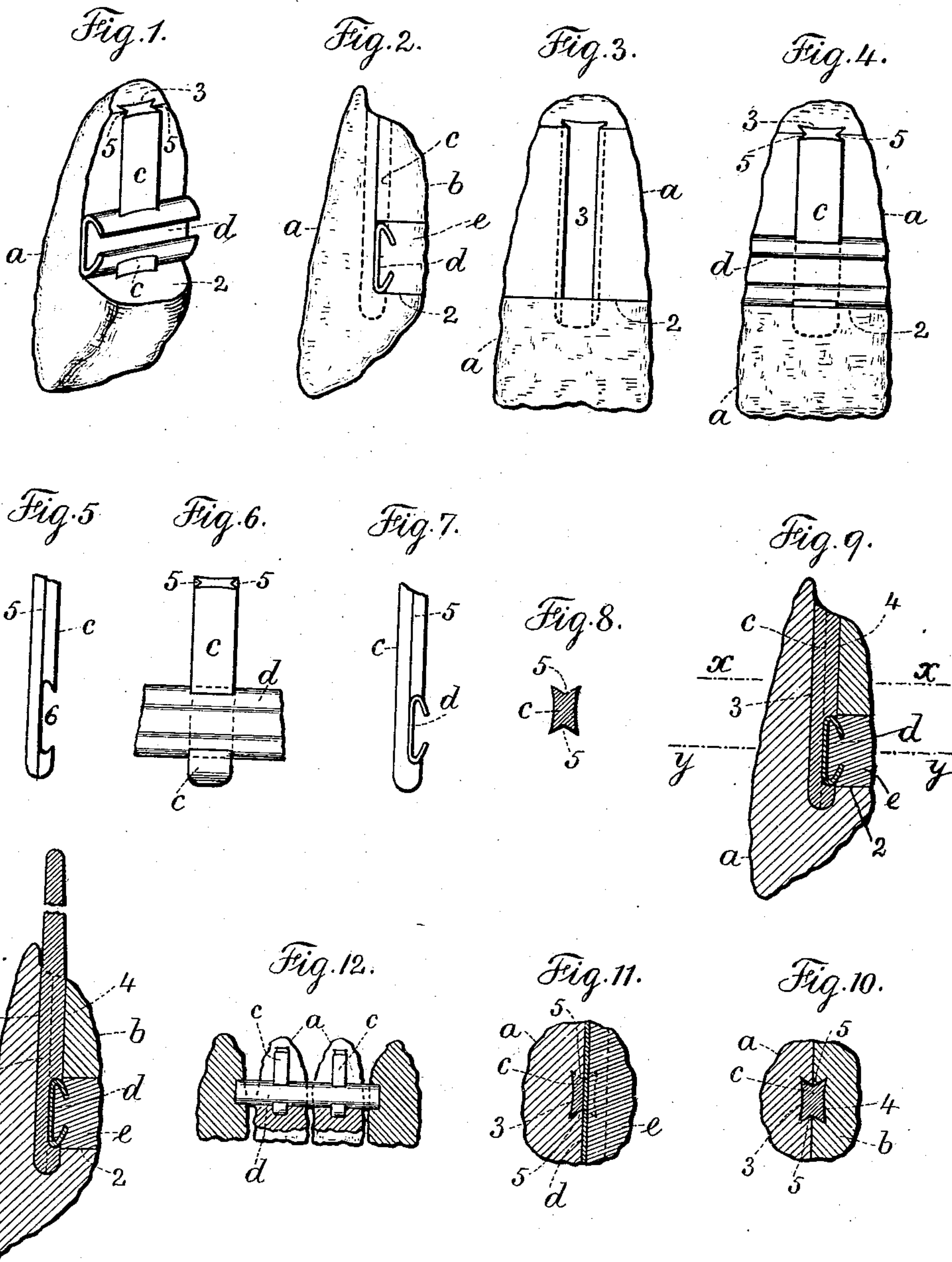


No. 742,572.

PATENTED OCT. 27, 1903.

D. N. BOOTH.
ARTIFICIAL TOOTH.
APPLICATION FILED JULY 11, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

DAVID N. BOOTH, OF NEW YORK, N. Y.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 742,572, dated October 27, 1903.

Application filed July 11, 1903. Serial No. 165,092. (No model.)

To all whom it may concern:

Be it known that I, DAVID N. BOOTH, a citizen of the United States, residing in the borough of Manhattan, city, county, and State of New York, have invented an Improvement in Artificial Teeth, of which the following is a specification.

My invention relates to artificial teeth adapted for use in crown and bridge work, and particularly to artificial teeth the parts of which are attachably connected to supports.

The object of my invention is primarily to provide an artificial tooth in which the unsightly and disagreeable metallic backing heretofore commonly employed in teeth of this kind is partially or entirely dispensed with.

In carrying out my operation I employ a tooth with a facing of suitable material, a backing preferably of the same material as the facing, a post to which both these aforesaid parts are to be connected and secured, and a transverse metallic member preferably grooved and secured to said post, all of which parts will be hereinafter more particularly described.

In the drawings, Figure 1 is a perspective view of the major portion of a tooth constructed according to my invention, and Fig. 2 is a side elevation of the same. Fig. 3 is a rear elevation of a tooth-facing, and Fig. 4 is a similar view showing the facing connected to the metallic post and transverse member. Fig. 5 is a side elevation of the post. Fig. 6 is a rear elevation of the post with transverse member connected thereto, and Fig. 7 is a side elevation of the same. Fig. 8 is a cross-section of the post. Fig. 9 is a vertical section through a tooth from front to back. Fig. 10 is a cross-section on line *x x*, Fig. 9. Fig. 11 is a cross-section on line *y y*, Fig. 9. Fig. 12 is an elevation and partial vertical section representing a row of connected teeth, and Fig. 13 is a vertical section illustrating the application of my invention to a pivot-tooth.

a represents a facing of a tooth made of porcelain or other suitable material. The masticating surface or end of the tooth is preferably made integral with the facing *a*, and the back of the facing is provided with a longitudinal groove 3, extending from the neck of the tooth to and slightly below a

shoulder 2 a short distance above the masticating-surface. The sides of the groove 3 are preferably undercut, and the base of the groove is advantageously made convex instead of flat.

b is a backing made of porcelain or of the same material as the facing *a*. The inner or flat surface of the backing *b* is provided with a groove 4, similar to the groove 3 in the back of the facing, the said groove 4 extending longitudinally the entire length of the backing *b*. I also employ a post or pin *c*, preferably made of metal and having angular grooves 5 extending along its opposite edges, the intermediate sides preferably being slightly concave. This post *c* is provided with an undercut transverse recess 6 in one side adapted to receive a transverse metallic member *d*, which may be solid or of dovetailed shape, as shown in the drawings. The groove 3 in the back of the facing is adapted to receive one portion of the post *c*, and the groove 4 in the inner surface of the backing is adapted to receive the remaining portion of the said post *c*, and these parts may be connected and secured together by cement or other suitable material. In forming a bridge of teeth the posts *c* and transverse member *d* are first connected, and then the facings *a* and backings *b* and filling portions are connected to the posts and transverse member to complete the intermediate teeth. These are then secured to the abutment-teeth. When crowns are employed, the ends of the transverse member are connected to the crowns and the facings and backings and filling portions assembled and connected afterward.

The transverse member *d* may be a solid body or bar connecting two or more posts or placed in the groove of only one post. For the purposes of my invention it is not essential how the bar or member *d* is made or connected to the posts. I prefer that said member or bar be grooved or formed as a bent-up strip to snugly fit the groove of a pin or the grooves of several pins, and the parts should fit so securely that there is absolutely no play or lost motion.

I have found that it is advantageous to have the backing *b* extend from the neck of the tooth to approximately the top of the

member *d* and to fill the space thus intervening between the bottom of the backing and the shoulder 2 at the top of the rear portion of the masticating-surface with gold or other
5 suitable material *e*.

It will be evident that by extending the post *c* beyond the neck of the tooth, as shown in Fig. 13, my improvement may be made applicable to pivot-teeth, in which instance I
10 may dispense with the grooved transverse member *d*. The depth of the masticating end will be varied in the various forms of teeth in order that the height of the tooth may be readily adjusted and a proper fit se-
15 cured.

I claim as my invention—

1. An artificial tooth, comprising a support, a detachable facing, a detachable back-
20 ing, the said facing and backing being adapted to be connected and secured to the said support, and a bar secured to said support and passing transversely through the tooth.

2. An artificial tooth, comprising a post, a detachable facing of porcelain, and a detach-
25 able backing of porcelain, said facing and backing being adapted to be connected and secured to said post.

3. An artificial tooth, comprising a post, having grooves in its opposite edges, a de-
30 tachable facing of porcelain having a longitudinal undercut recess therein, a masticating end integral with said facing, and a de-

tachable backing of porcelain having an undercut longitudinal recess therein, the said
35 grooves in the post being adapted to be received in the said grooves in the facing and backing.

4. An artificial tooth, comprising a metallic post having angular grooves in its opposite edges, a detachable facing of porcelain
40 having a longitudinal undercut recess therein, a masticating end integral with said facing, a detachable backing of porcelain having a longitudinal undercut recess therein, and a metallic bar secured to said post and
45 extending transversely through the said tooth, the said grooves in the post being adapted to be received in the said grooves in the facing and backing.

5. An artificial tooth, comprising a metallic post, a detachable facing of porcelain, a
50 detachable backing of porcelain, said backing and facing being adapted to be connected and secured to said post, a metallic bar secured in said post and passing transversely
55 through the tooth, and a metallic filling between the lower end of the backing and the shoulder 2 of the masticating end of the tooth.

Signed by me this 26th day of June, 1903.

D. N. BOOTH.

Witnesses:

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