

No. 830,887.

PATENTED SEPT. 11, 1906.

R. M. CRAIG.

DENTURE.

APPLICATION FILED JAN. 17, 1906.

Fig. 1

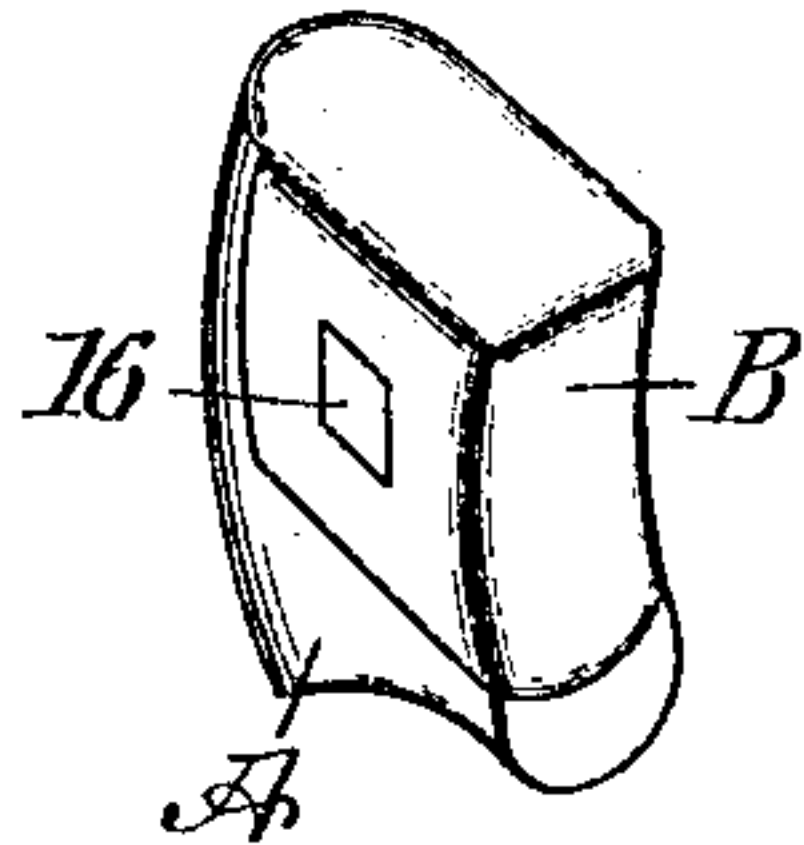


Fig. 2

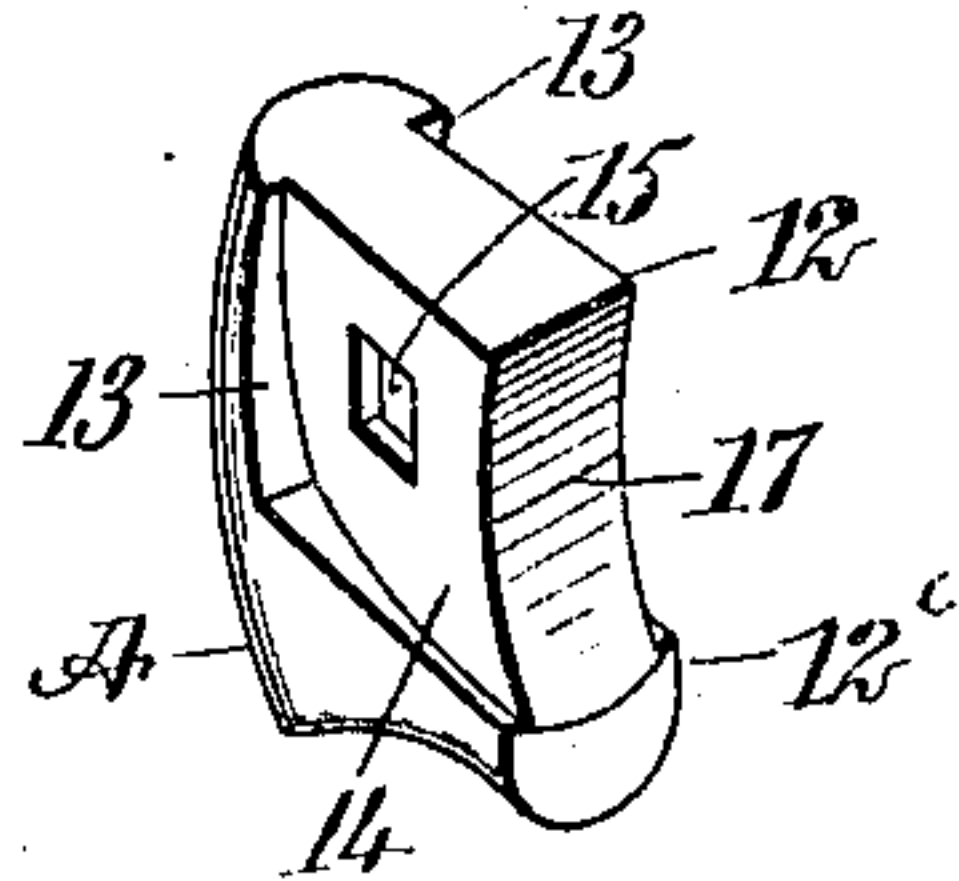


Fig. 3

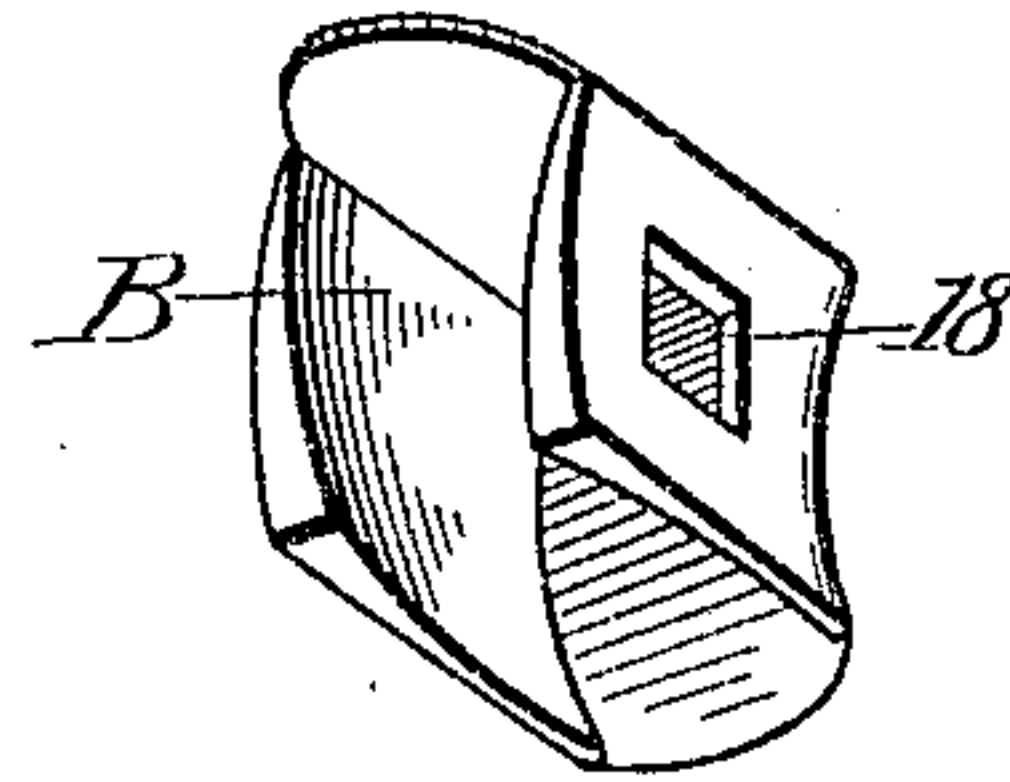


Fig. 4

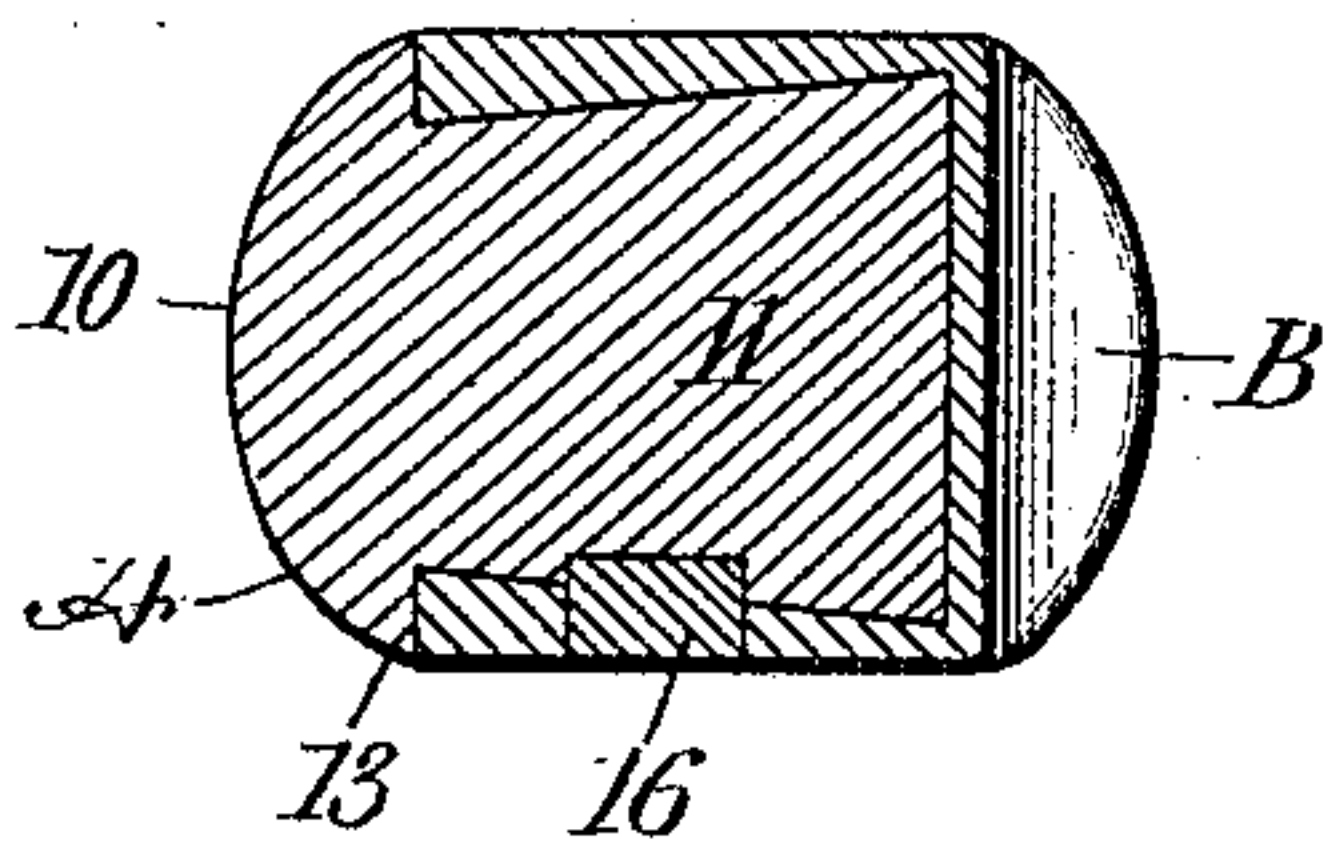


Fig. 5

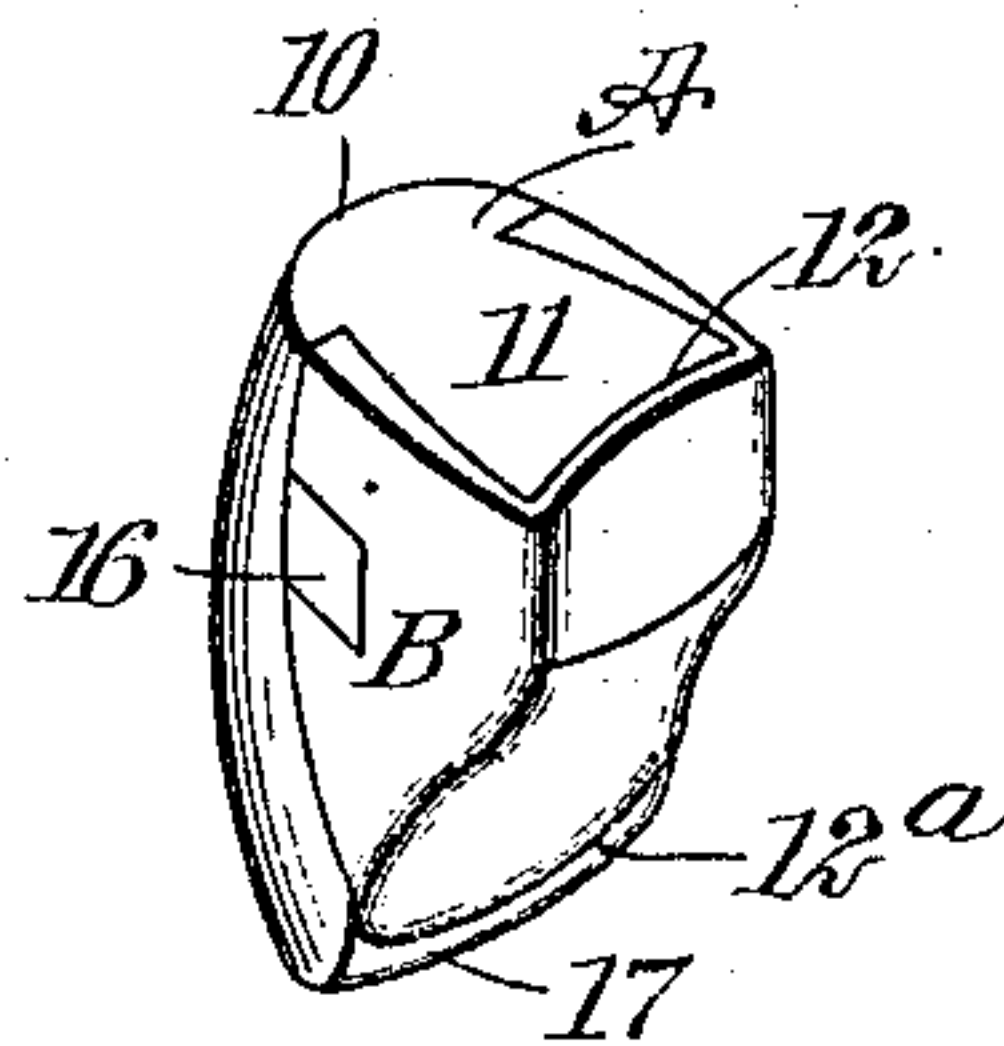


Fig. 6

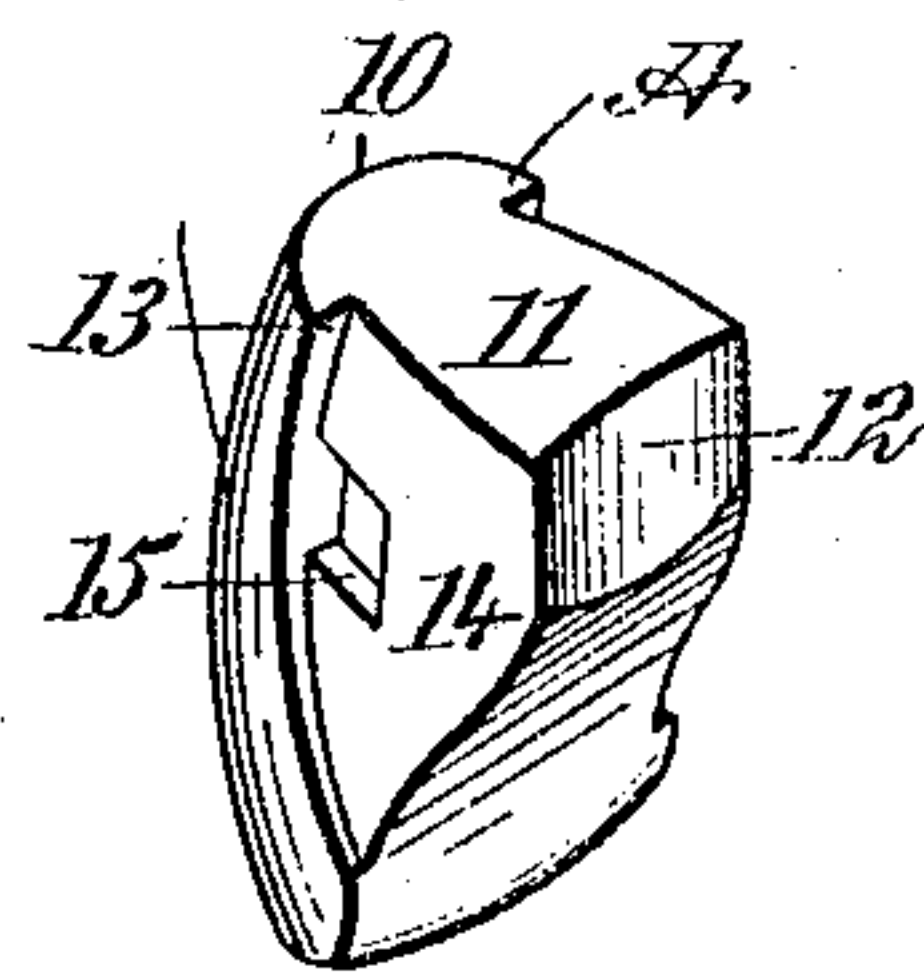


Fig. 7

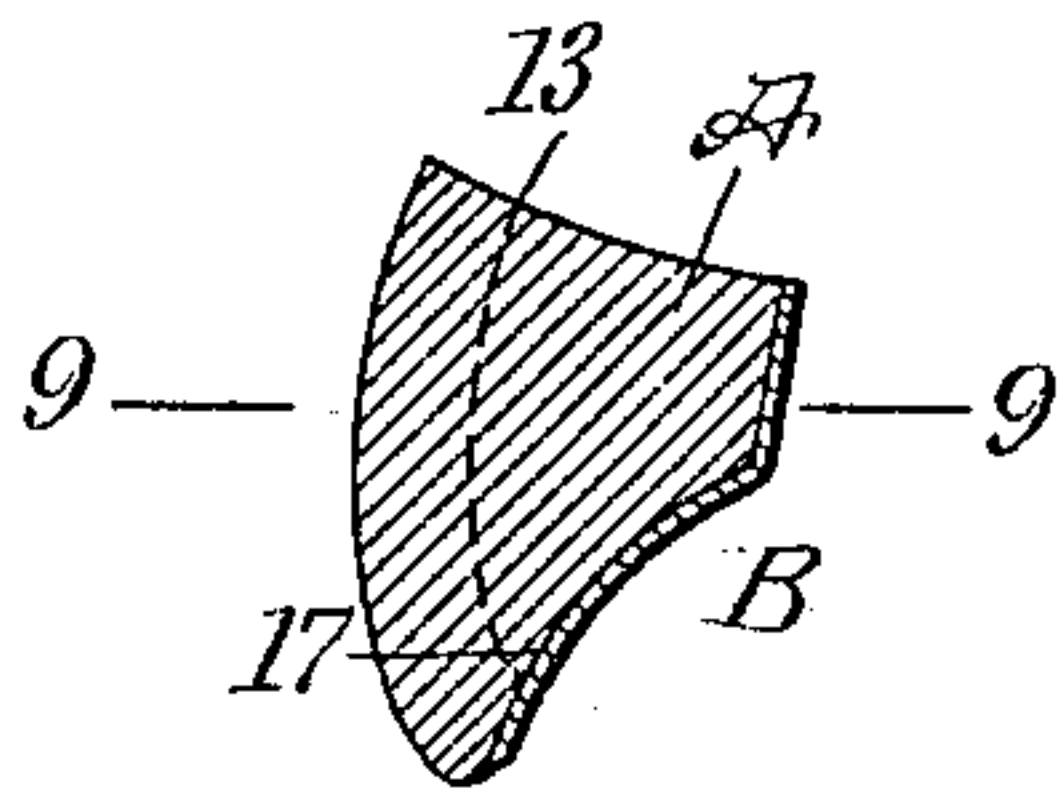


Fig. 8

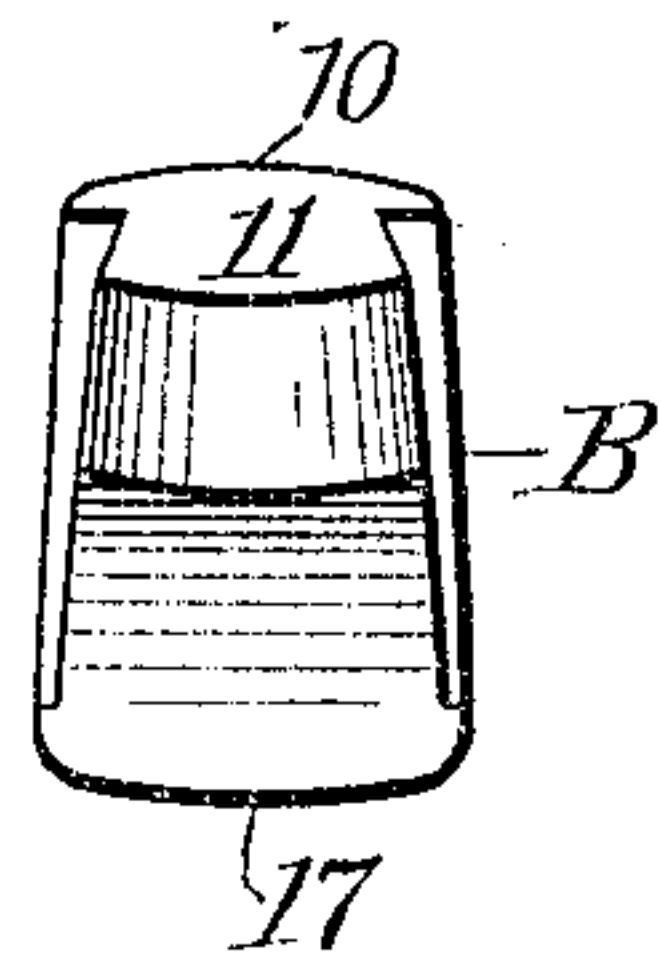


Fig. 9

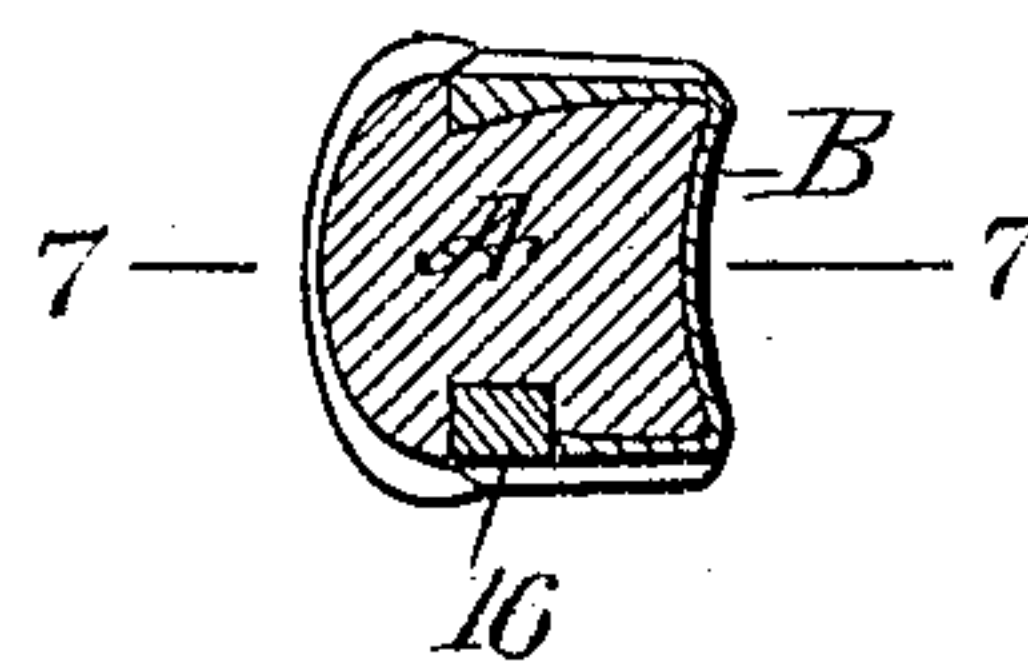
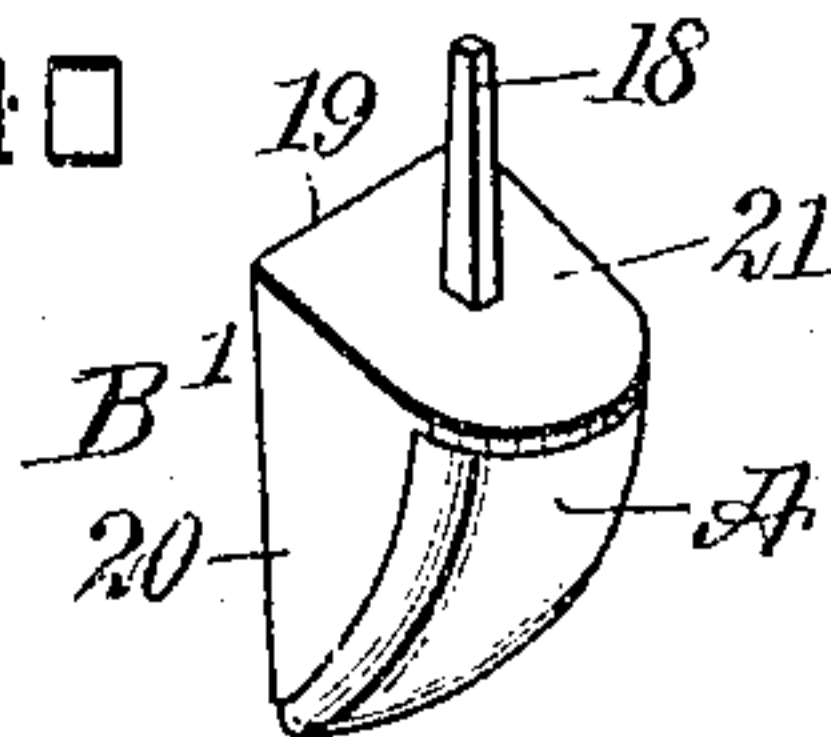


Fig. 10



WITNESSES:

J. A. Proply
J. H. Oakes

INVENTOR

Robert M. Craig

BY

Mum & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

ROBERT MEADE CRAIG, OF DENNISON, OHIO.

DENTURE.

No. 830,887.

Specification of Letters Patent.

Patented Sept. 11, 1906.

Application filed January 17, 1906. Serial No. 296,499.

To all whom it may concern:

Be it known that I, ROBERT MEADE CRAIG, a citizen of the United States, and a resident of Dennison, in the county of Tuscarawas and State of Ohio, have invented a new and useful Improvement in Dentures, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a porcelain tooth or facing so shaped that the backing can be quickly and conveniently applied thereto and readily set to the tooth in such manner as to be a fixture therein and wherein the backing when in position will be hidden from sight at the front of the body.

A further purpose of the invention is to provide a backing which is practically keyed to the porcelain and which may be utilized in plate, bridge, or other dental work where a tooth is to be affixed to an object.

A further purpose of the invention is to so construct the backing that the porcelain may be removed therefrom without necessitating the removal of the entire denture, thus admitting of ready repair.

Another purpose of the invention is to provide a backing of the character described equally applicable to incisors, canines, bicuspid, or molars.

The invention consists in the novel construction and combination of these several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of a porcelain bicuspid and the backing applied thereto. Fig. 2 is a perspective view of the bicuspid with the backing removed. Fig. 3 is a perspective view of the backing for the bicuspid. Fig. 4 is an enlarged horizontal section through the porcelain bicuspid and its backing. Fig. 5 is a perspective view of an incisor with the backing applied. Fig. 6 is a perspective view of the incisor with the backing removed. Fig. 7 is a vertical section through the incisor and its backing, drawn upon a smaller scale, the section being taken practically on the line 7 7 of Fig. 9. Fig. 8 is a front elevation of the backing. Fig. 9 is a horizontal section taken practically on the line 9 9 of Fig. 7, and Fig. 10 is a perspective

view of a tooth having a facing provided with a post.

The facing of porcelain A consists of two integral parts, an anterior portion 10, made to imitate a natural tooth, and a body or posterior portion 11, adapted to facilitate the attachment of the porcelain to a metal backing B. The anterior portion 10 of the said porcelain may be of any shape or size to represent a natural tooth and may be made sufficiently wide to conceal the backing, if desired.

In all forms of the porcelain the posterior portion 11 is dovetail shape in cross-section, and its base, which is at the rear, is usually more or less concave, as is shown, particularly between the points 12 and 12^a, Figs. 2 and 5, or from gingival to incisal edge; but as the narrower part of the said posterior portion of the porcelain adjoins the anterior portion thereof at the back of said anterior portion an occlusal edge 13 is formed, and the faces of the said posterior portion 11 constitute occlusal surfaces 14. In the side face of the said posterior portion 11 of the said porcelain a recess or pit 15 is formed to receive a locking device, which device is in the nature of a key 16.

The backing B is preferably made of metal and is in the form of a shell, its anterior portion being open and its side and posterior portions closed, and the anterior of the backing B is an exact counterpart of the posterior portion of the described facing or porcelain, and when the packing is applied to the said facing or porcelain it adheres closely thereto. The backing may be of any desired thickness at any point and interiorly it is always dovetail shape in cross-section, and the posterior portion of the backing may be extended beyond the incisory edge of the porcelain, forming a protection therefor, and the said posterior portion of the backing may be extended only partially around the lingual surface 17 of the porcelain, thus giving a more natural appearance to the tooth. In one side of the backing an opening 18 is made, which registers with the pit or recess 15 in the porcelain, through which opening the key 16 is passed. It will be observed that the porcelain is retained by means of the metal environment around the body of the tooth and that the grooves forming the dovetail being in the sides of the body of the porcelain the tooth is not weakened. The porcelain can be removed from the body

at any time by simply removing the key 16 and sliding the porcelain out from the backing in a direction continuous with the line of the base.

5 In Fig. 10 I have shown a porcelain A, provided with a facing B', adapted for use in connection with a post 18, the facing consisting of a back member 19, side members 20, and a cap or cover member 21, to which the post 18
10 is secured, which construction is particularly adaptable where a single crown is to be used. In bridgework the post is not needed.

Having thus described my invention, I claim as new and desire to secure by Letters
15 Patent—

1. A denture comprising a porcelain having its posterior portion formed into a dovetail, a backing having a recess shaped to fit the dovetail, and a locking device for the
20 backing.

2. In a denture, a porcelain having its body portion dovetail in cross-section, being widest at the rear, forming thereby occlusal edges and occlusal surfaces, a backing also interiorly dovetail in cross-section, which backing
25 fits close to the said occlusal surfaces and

against said occlusal edges, and a locking device for the backing.

3. In a denture, a porcelain provided with a posterior portion dovetail in cross-section, the anterior portion of the said porcelain extending beyond the side faces of the posterior portion of the porcelain, one of said side faces having a recess therein, and a backing dovetail in cross-section, which backing conforms
35 strictly to the contour of the posterior portion of the porcelain and adheres closely thereto, the side members of the said backing engaging with the shoulders formed by the extension of the anterior portion of the porcelain beyond the sides of its posterior portion,
40 one of the side members of the backing having an opening therein adapted to register with the recess in the porcelain, and a key passed through said opening into said recess.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ROBERT MEADE CRAIG.

Witnesses:

W. J. ROBERTS,
R. B. LOOS.