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S. S. BLOOM.

CONNECTION FOR ARTIFICIAL TEETH AND DENTAL PLATES.

APPLICATION FILED OCT. 28, 1904.

Fig. 1.

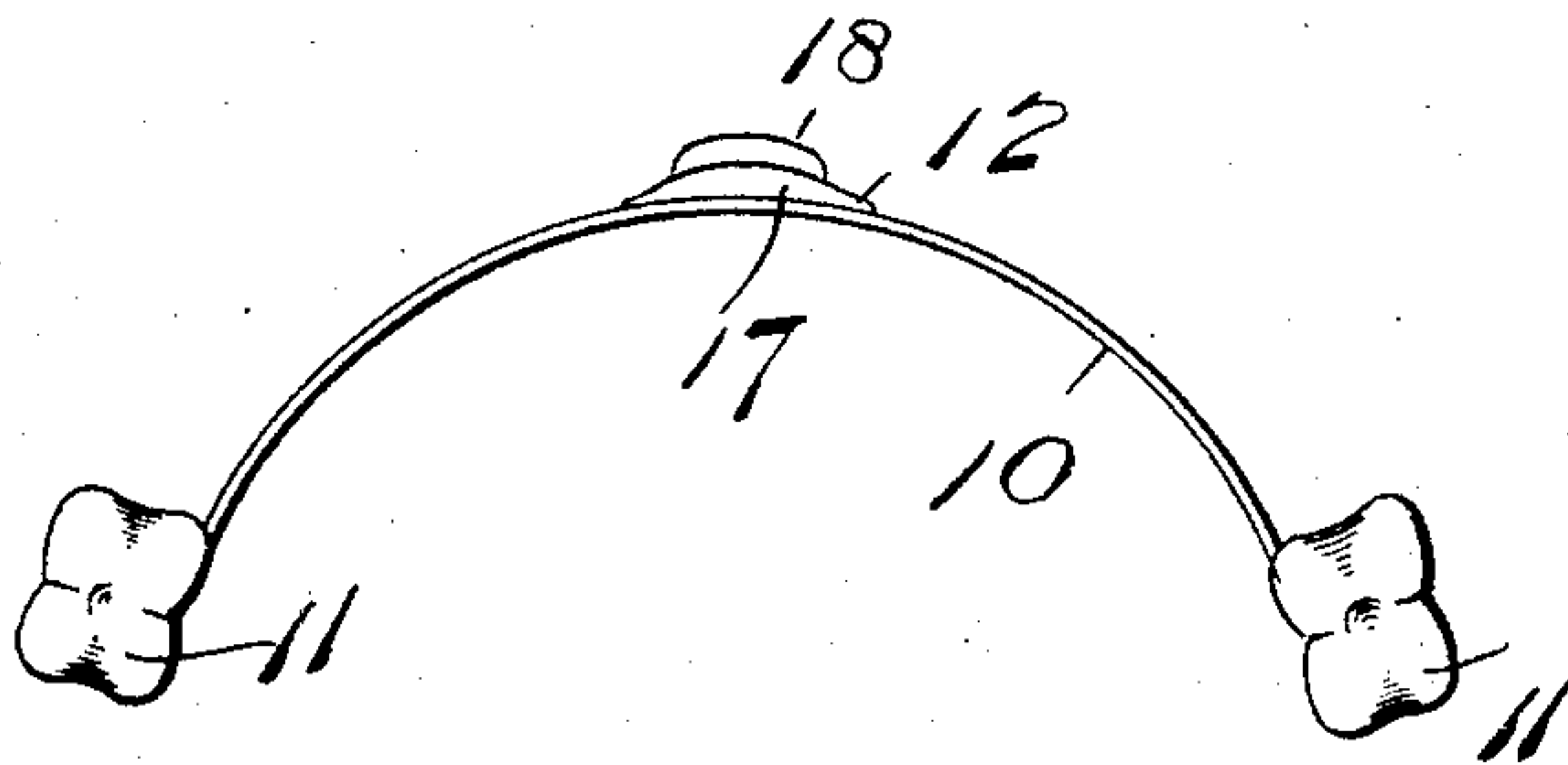


Fig. 2.

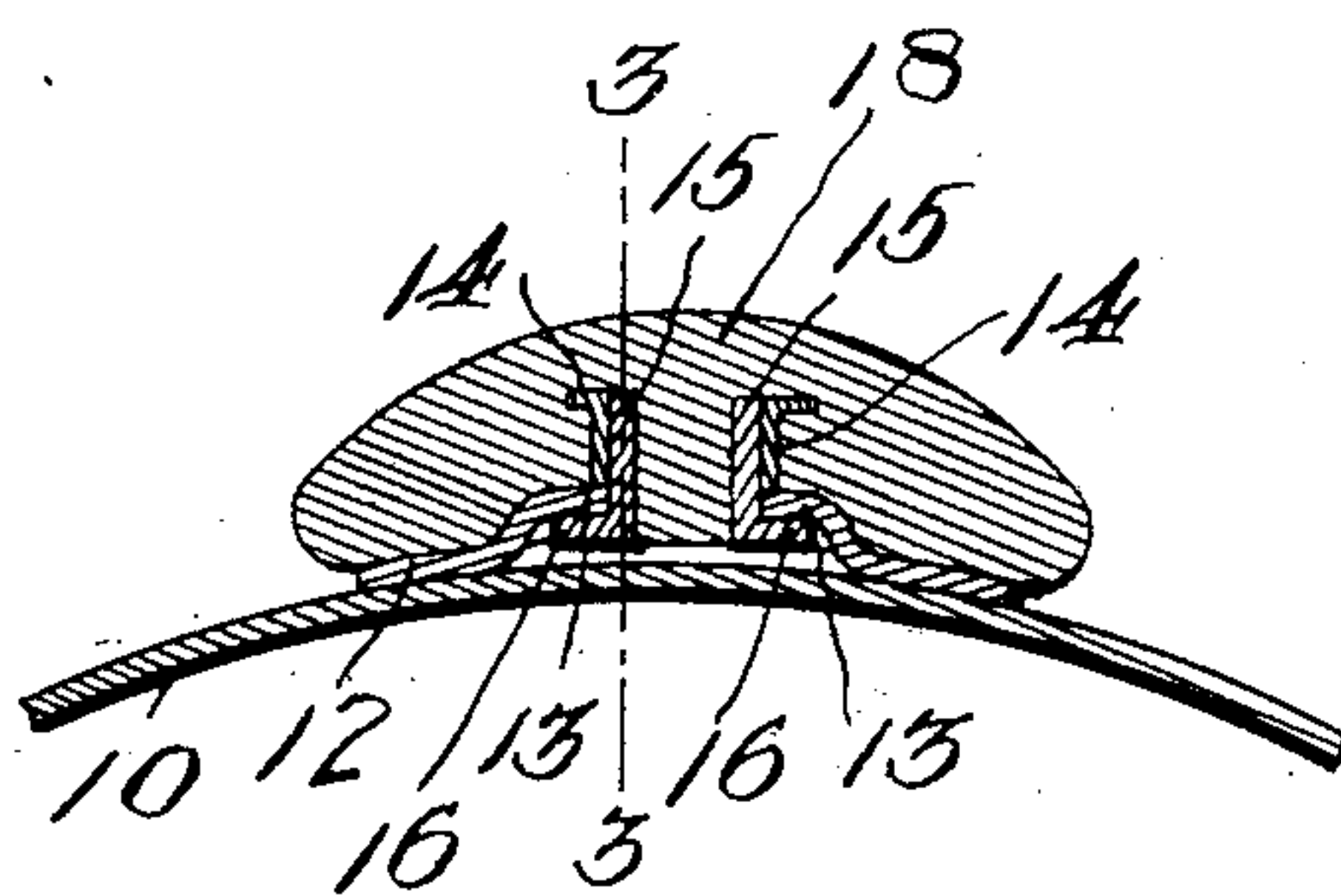


Fig. 3.

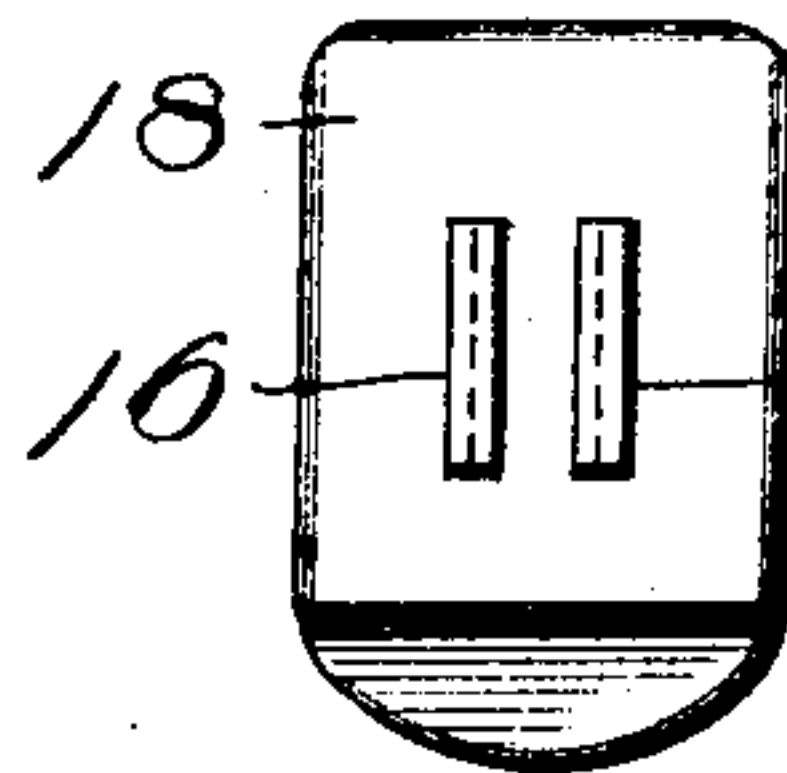
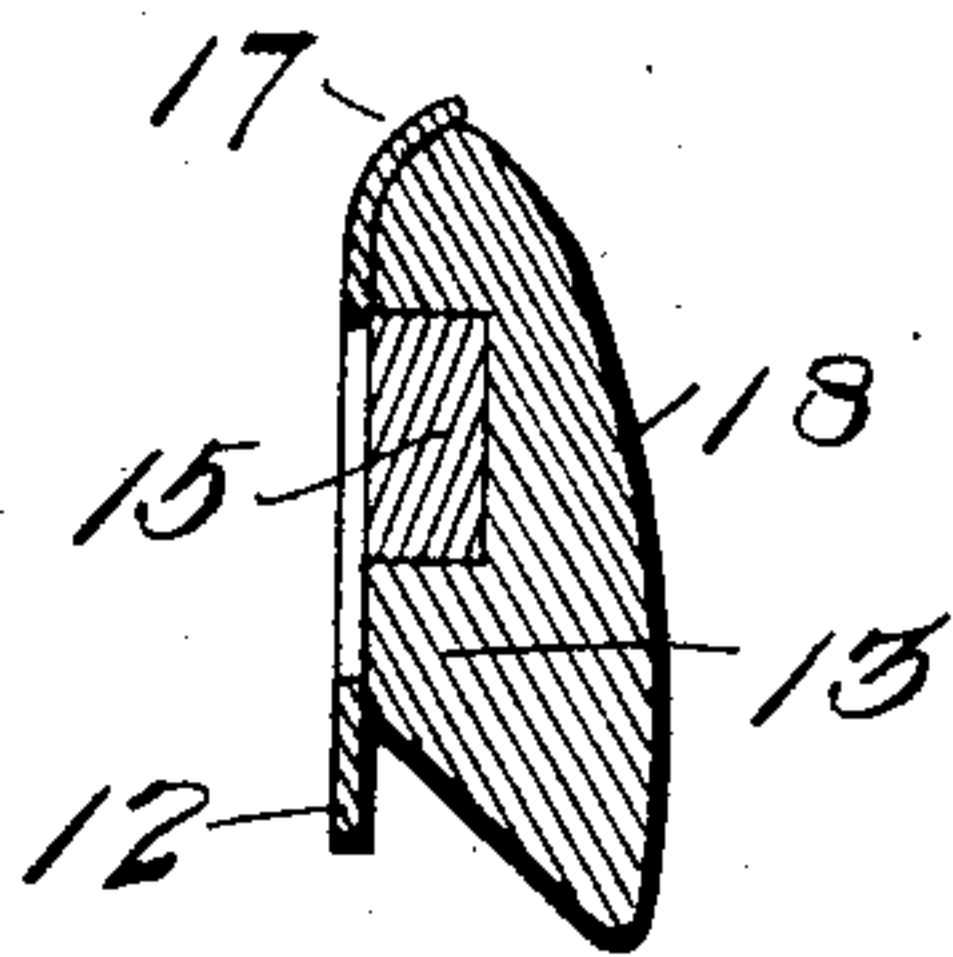


Fig. 4.

Fig. 5.

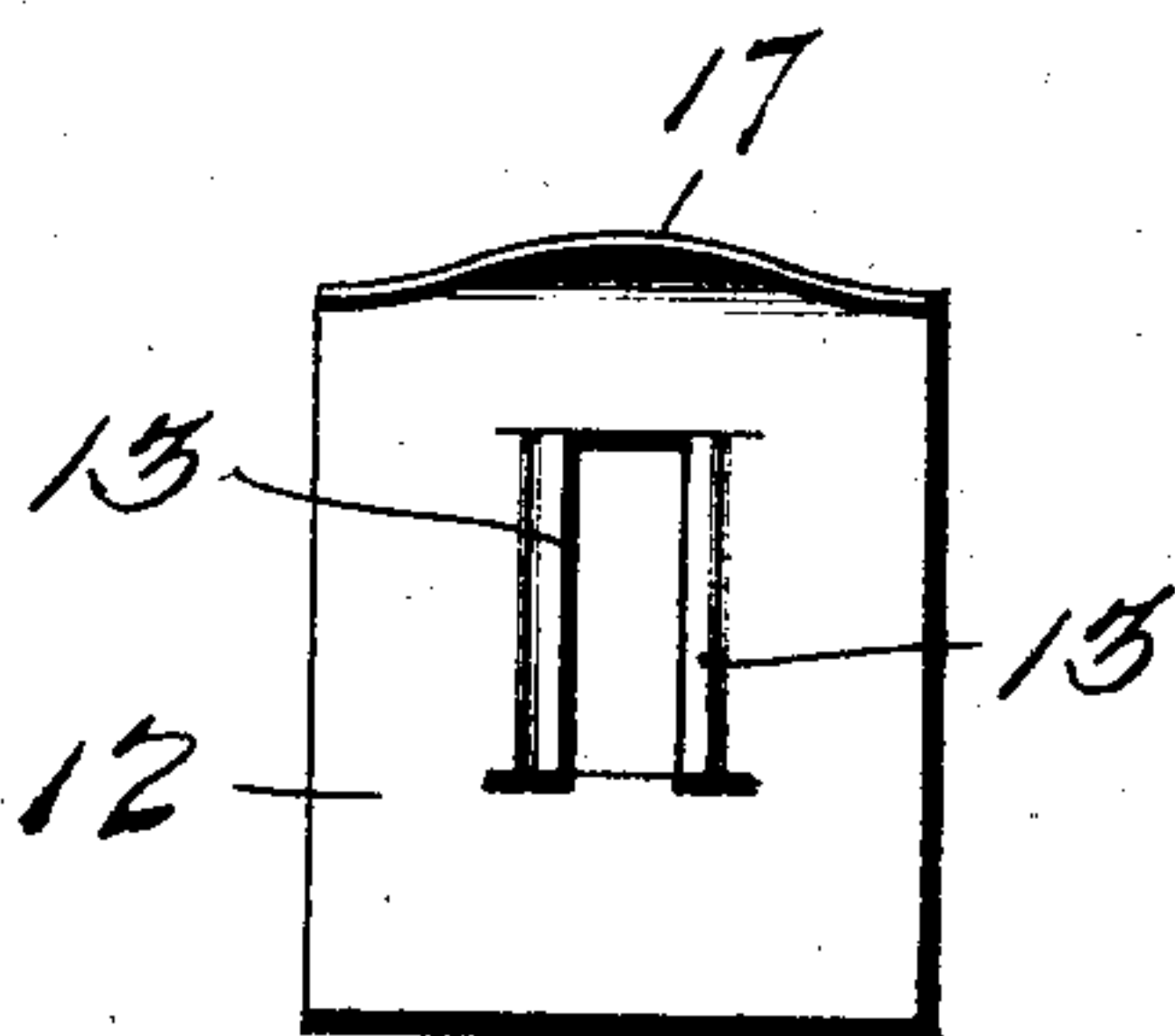
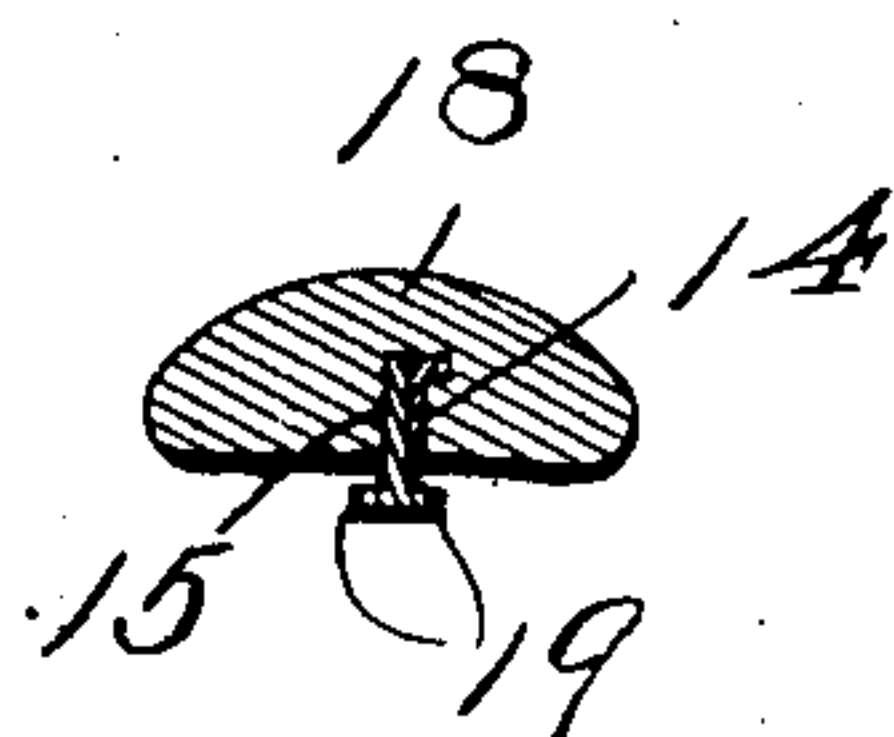


Fig. 6.



Inventor

Samuel S. Bloom

By

Arthur W. Hanson

Attorney

Witnesses

J. H. Kocum
H. J. Gordon Day

UNITED STATES PATENT OFFICE.

SAMUEL S. BLOOM, OF PHILADELPHIA, PENNSYLVANIA.

CONNECTION FOR ARTIFICIAL TEETH AND DENTAL PLATES.

SPECIFICATION forming part of Letters Patent No. 785,999, dated March 28, 1905.

Application filed October 28, 1904. Serial No. 230,351.

To all whom it may concern:

Be it known that I, SAMUEL S. BLOOM, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Connections for Artificial Teeth and Dental Plates, of which the following is a specification.

This invention relates to means for connecting artificial teeth with dental plates, whether said plates be of a type known as dental "bridge" or "crown" plates; and the object of the invention is to provide a separable connection which will enable the tooth to be secured to the backing-piece that is employed to connect the tooth with the plate with the least possible use of an expensive metal, such as platinum.

To this end the invention consists in the construction substantially as hereinafter described and claimed.

Of the accompanying drawings, Figure 1 represents a plan view of a conventional form of dental bridge with a single tooth connected thereto according to my present invention. Fig. 2 is an enlarged detail horizontal section through a tooth and the means whereby it is removably connected with the plate of the bridge. Fig. 3 represents a detail section on line 3 3 of Fig. 2. Fig. 4 represents an elevation of the tooth detached from the backing-plate. Fig. 5 represents an elevation of the backing-plate. Fig. 6 represents a section of a tooth with modified form of guide or securing plate as hereinafter described.

Similar reference characters indicate similar parts in all of the figures.

Referring first to Fig. 1, a conventional form of bridge-plate is indicated at 10, the ends of said plate being formed with caps or crowns 11, by means of which the bridge will be supported from two natural teeth. My invention, however, is not limited in any way to the particular form of plate 10 employed, since it may be any kind of dental plate to which an artificial tooth is to be secured in such manner that if the tooth is broken it can be removed and replaced by a new one without removing the plate from the jaw of the patient.

A backing-piece 12 is secured to the gold

or other plate 10 by any suitable means, as by silver solder. Said backing-piece 12 is formed with two parallel flanges 13, which are offset from the main portion of the backing-piece sufficiently to permit the ribs of the tooth, hereinafter referred to, to be engaged with said flanges. Practically the space between the flanges 13 may be said to form a groove to receive the ribs of the tooth.

In the preferred embodiment of my invention the tooth is baked with two recesses, one side of each recess being occupied by a small platinum anchor 14, each of said anchors being in the form of a plate having a flange embedded in the material of the tooth, as indicated in Fig. 2. The tooth when so baked will have a recess at one side of and adjacent to each anchor 14. Within each of said recesses will be occupied by a plate 15, which will be soldered to an anchor 14, each plate 15 having an outwardly-turned flange at its projecting edge, said flange forming a rib 16. The plates 15 and their ribs 16 will be formed of German silver or other base metal which can be soldered to the platinum anchors 14. The reason for forming the anchors 14 of platinum is, as is well known, that platinum is a metal which will withstand the heat of the ovens in which the teeth are baked, while German silver is a relatively inexpensive metal, but will not stand such baking temperature.

When the plates 15 are soldered to the anchors 14, with the ribs 16 projecting substantially as shown in Fig. 2, said ribs are adapted to be engaged with the parallel flanges 13 of the backing-piece by a sliding movement of the tooth after entering the ribs 16 behind one end of the flanges 13, as will be readily understood by comparing Figs. 2 and 3. To prevent movement of the tooth beyond the point desired for it, the upper edge of the backing-piece 12 is formed with a flange 17, (see Fig. 3,) against which the upper edge of the tooth-body 18 is adapted to engage, thereby preventing excessive upward movement of the tooth-body when it is to be engaged with the backing-piece.

It will now be understood that when the bridge is in position in the mouth of the pa-

5 tient a tooth having the ribs 16 may be en-
 gaged with the flanges 13 of the backing-
 plate in the manner hereinbefore described,
 moving the tooth-body to the position repre-
 10 sented in Fig. 3, some cement having been
 previously applied to the interlocking flanges,
 so that after said cement has set the tooth will
 remain in the position in which it has been
 placed. Then if the tooth-body becomes
 15 broken the cement can be picked out and a
 new tooth-body applied in the same way.

Instead of applying two platinum anchors
 and plates and ribs to a tooth-body a single
 recess may be formed in the tooth-body, as
 15 shown in Fig. 6, one platinum anchor being
 employed and a single plate 15, having ribs
 19 projecting in opposite directions from the
 outer edge of said plate 15. With this form
 the two flanges 19 will be engaged in the same
 20 manner as above described, with properly-po-
 sitioned flanges of the backing-piece similar
 to the form shown in Fig. 2, but with the
 edges of the flanges 13 more closely approach-
 ing each other. For a small tooth the form
 25 shown in Fig. 6 will suffice; but I prefer the
 two flanges 15 and their ribs and the construc-
 tion of the backing-piece as shown in Fig. 2.

Having now described my invention, what
 I claim is—

30 1. A separable connection for artificial teeth
 comprising a plate or bridge-piece, having
 holding-ribs, a pair of platinum anchors em-
 bedded in the tooth, the latter having recesses

adjacent to the anchors, and plates of rela-
 35 tively inexpensive metal fitting said recesses
 and soldered to the anchors, the said plates
 projecting from the back of the tooth and
 formed with flanges to engage the ribs of
 said bridge-piece or plate when slid longitu-
 40 dinally thereof.

2. The combination with a dental plate, of
 a backing-piece having parallel offset flanges
 secured to said dental plate, and a tooth hav-
 45 ing ribs adapted to engage said flanges of the
 backing-piece by an endwise movement of the
 ribs relatively to said flanges, the said ribs
 projecting from the back of the tooth and sol-
 dered to platinum anchoring means embedded
 within the tooth.

3. The combination with a dental plate, of 50
 a backing-piece having parallel offset flanges
 secured to said dental plate and having an up-
 per flange projecting forwardly therefrom, of
 a tooth having ribs projecting from its back
 and adapted to be engaged with the parallel 55
 flanges of the backing-piece, the upper end of
 the tooth being adapted to abut against said
 forwardly-projecting flange of the backing-
 piece.

In testimony whereof I affix my signature in 60
 presence of two subscribing witnesses.

SAMUEL S. BLOOM.

Witnesses:

HARRY LEDEKER,
 PHILIP B. FRANTZ.