Oct. 23, 1923. 1,471,754

A. M. ROSENBLUM

ARTIFICIAL TOOTH WITH ANCHORING MEANS THEREFOR

Filed Nov. 23, 1922

Fig. 1

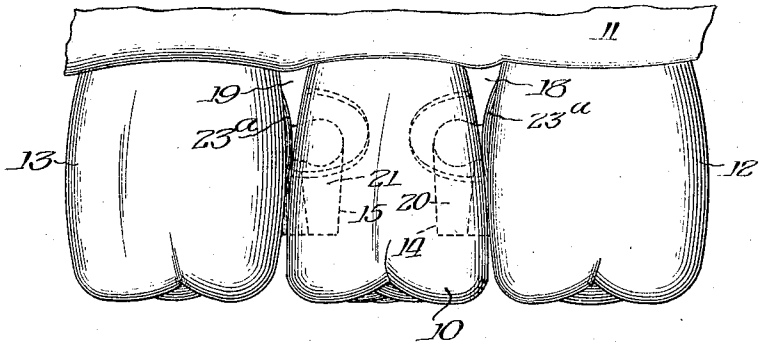


Fig. 2

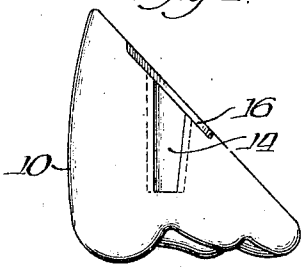


Fig. 3

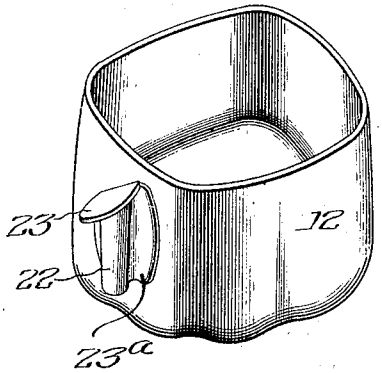


Fig. 4

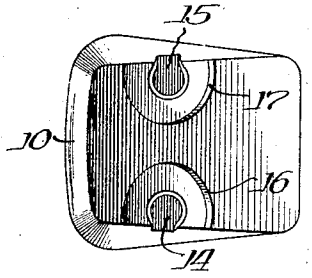
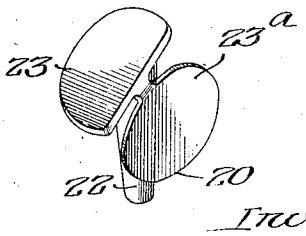


Fig. 5.



Witness:

Inventor:

Albert M. Rosenblum

By Wilkinson Huxley Byron & Knight

Attys

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UNITED STATES PATENT OFFICE.

ALBERT M. ROSENBLUM, OF CHICAGO, ILLINOIS.

ARTIFICIAL TOOTH WITH ANCHORING MEANS THEREFOR.

Application filed November 23, 1922. Serial No. 602,675.

To all whom it may concern:

Be it known that I, ALBERT M. ROSENBLUM, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in an Artificial Tooth with Anchoring Means Therefor, of which the following is a specification.

My invention relates to an artificial tooth with anchoring means therefor and has particular reference to an artificial tooth which is inserted between two natural teeth, although the same principle may be used for securing bridge work composed of one or more artificial teeth in position.

The primary object of my invention is the provision of an artificial tooth and anchoring means therefor which is placed in position between two natural teeth having crowns placed thereon or any other form of abutment, the said artificial tooth being a duplicate of a natural tooth and anchored at each of its sides to crowns positioned over natural teeth.

Another and further object of my invention is the provision of an artificial tooth which is composed of ivory, porcelain, or other plastic compound so positioned that a minimum amount of metal is used in anchoring the said tooth and in which contact with the gum of the wearer is reduced to a minimum and thus reducing the amount of irritation caused by contact of metal with the gums of the wearer, and also enabling the use of a material which is not affected by the saliva resulting in tarnishing of metal used as crowns and the like.

Another and further object of my invention is the provision of an artificial tooth which can be prepared and placed in position by being anchored to crowns on adjacent natural teeth and cemented in position so that it is held securely in place with a minimum of time and labor and inconvenience to the patient.

Another and further object of my invention is the provision of an artificial tooth with anchoring means therefor which are inserted into recesses in the artificial tooth in such manner that the tooth is securely held in position without an undue amount of stress upon the cement used for holding a tooth of this character in position so that the tooth remains firmly in position.

Another and further object of my invention is the provision of an artificial tooth which can be easily removed and replaced in case of breakage, with another tooth without the removal of the entire supporting and anchoring means heretofore employed for such purpose.

These and other objects of my invention will be more fully and better understood by reference to the accompanying sheet of drawings and in which—

Figure 1 is a front elevational view of an upper tooth embodying my invention;

Figure 2 is a side elevational view of the artificial tooth and anchoring means used to hold the artificial tooth in position;

Figure 3 is an elevational view of a crown adapted to be positioned over the natural tooth;

Figure 4 is a top plan view of my improved invention; and

Figure 5 is an elevational view of the anchoring member used to secure the artificial tooth to the adjacent crowns.

Referring now specifically to the drawings and in which like reference characters refer to like parts throughout, an artificial tooth 10 is shown in position against the gum 11 of a wearer with crowns 12 and 13 of the usual form composed preferably of gold in position over natural teeth on each side of the artificial tooth 10. The said artificial tooth 10 has a pair of vertically extending recesses 14 and 15 in each of its sides preferably round in cross section so as to allow for slight adjustment of the tooth after it is placed in position in the mouth of the wearer, the said tooth also having a pair of half-elliptical or semi-circular recesses 16 and 17 at its upper diagonally extending face and within which portions of the anchoring members hereinafter described are positioned, these recesses also being of such contour that the tooth can be turned into proper alinement with the other teeth after being placed in position. The said tooth 10 is slightly wedge-shaped, being narrower at its upper portion so that spaces 18 and 19 are provided between the crowns 12 and 13 which allows for easy cleansing out of particles of food lodged therein while the artificial tooth 10 at the bottom fits snugly in the edges of the crowns 12 and 13.

Anchoring members 20 and 21 are provided composed preferably of gold, one of such members being illustrated in Figure 5 and consists of a main stud portion 22

slightly tapering and preferably round in cross section which is adapted to fit into the vertical recess 14 in the side of the artificial tooth, the stud 22 having a head portion 23 secured thereto which is half elliptical in shape or half circular, as may be desired and which is adapted to fit into the recess 17 at the upper side of the tooth, and being flush therewith as shown in Figure 2, so that this portion 23 is the only metal which is in contact with the gum of the wearer. The stud 22 tapers from its lower end upward so as to secure tight fitting engagement with the tooth 10. A side piece 23^a is provided which is secured to the side of the stud 22 and is slightly flexible so as to fit snugly against the crown 12 and is either soldered or welded thereto so that the anchoring member is firmly secured to the flat side of the crown 12, it being thus understood that the anchoring member is of such shape and contour that the tooth is held in position by the portions of the anchoring member positioned in the side and top recesses and without any great amount of strain being imposed upon the cement by means of which the anchoring member is secured to the artificial tooth.

If it is desired to place two or more artificial teeth in position instead of the usual bridge work, a pair of the anchoring members 20 are provided with the portions 23^a soldered or brazed together or the post 22 may be secured directly to the outside of the member 23^a.

In operation, the device is comparatively simple, the artificial teeth being made according to the sizes desired and are placed in position merely by securing the anchoring members 20 and 21 in position by brazing them to the crown 12 and 13 after they are placed in position upon the natural teeth of the wearer and the artificial tooth 10 having its recess coated with cement is simply slipped into position so that the stud 22 extends into the vertical recesses 14 and 15 and the upper portion 23 fits into the recesses 16 and 17 on the upper surface of the tooth and flush therewith, the under side of the member 23 being cemented to the tooth so that the artificial tooth is held firmly in position against the gum of the wearer. In case the tooth is broken, it is very easily removed and a new tooth inserted in the same manner as heretofore described, in inserting the artificial tooth.

It will be understood that while I have shown an embodiment of my invention in the form of an upper tooth, that it can be applied to the lower teeth as well where anchoring means are possible on each side of the tooth.

While I have described more or less precisely the details of construction, I do not wish to be understood as limiting myself thereto, as I contemplate changes in form and the proportion of parts and the substitution of equivalents as circumstances may suggest or render expedient without departing from the spirit or scope of my invention.

I claim:

1. In combination, an artificial tooth having vertically formed recesses extending from the base towards the cusp in the sides thereof, and anchoring means for the said tooth comprising a vertically extending central post adapted to be inserted in said recesses, a flat side member presenting a flat vertical face secured to the side of the said post and a widened base portion adapted to fit into a complementary formed recess in the base of the said tooth.

2. In combination, an artificial tooth having vertically formed tapered recesses extending from the base towards the cusp portion in the sides thereof, an anchoring means for the said tooth comprising vertically extending tapered center posts adapted to be inserted in the said recesses, and members having flat tapered faces adapted to be secured to adjacent crowns and to the sides of the posts, the said posts having enlarged transversely extending portions adapted to fit into recesses formed in the base of the said tooth whereby the base of the tooth presents a plain surface.

Signed at Chicago, Illinois, this 21st day of November, 1922.

ALBERT M. ROSENBLUM.