E. J. GREENFIELD.

MOUNTING FOR ARTIFICIAL TEETH.

APPLICATION FILED FEB. 17, 1909.

943,113. Patented Dec. 14, 1909.

Fig. 1.

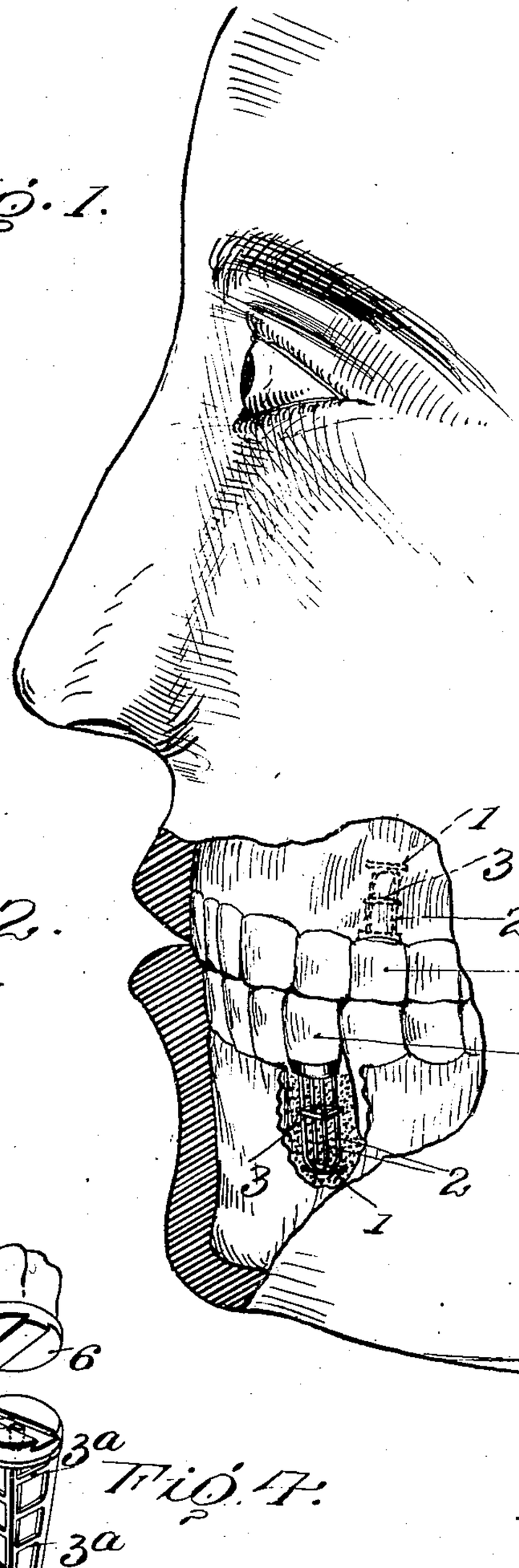


Fig. 3.

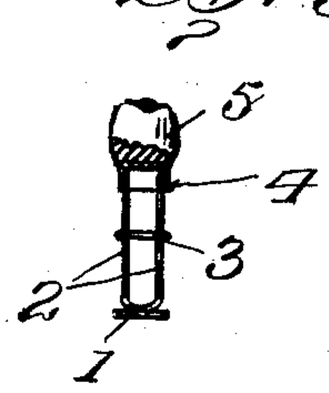


Fig. 2.

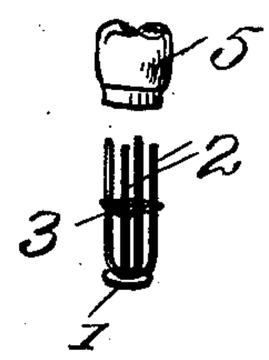
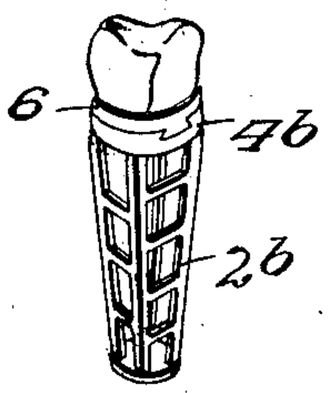


Fig. 5.



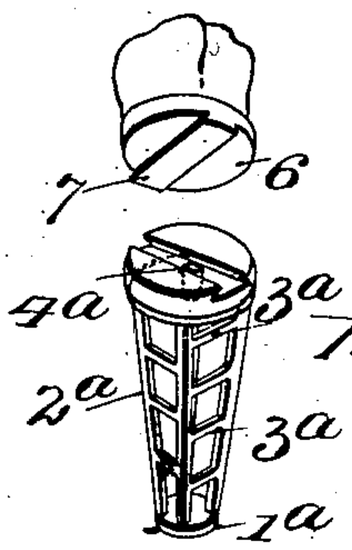


Fig. 7.

WITNESSES:

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EDWIN J. GREENFIELD, OF WICHITA, KANSAS.

MOUNTING FOR ARTIFICIAL TEETH.

943,113. Specification of Letters Patent. Patented Dec. 14, 1909.

Application filed February 17, 1909. Serial No. 478,360.

To all whom it may concern:

Be it known that I, EDWIN J. GREENFIELD, citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Mountings for Artificial Teeth, of which the following is a specification.

The present invention relates in general to dentistry, and more particularly to a novel means for mounting artificial teeth.

The object of the invention is the provision of a peculiarly constructed frame which is adapted to serve as a bearing for the teeth, and which is designed to be inserted into a cavity drilled in the jaw bone so as to be held firmly in position when the bone closes in upon the same.

For a full understanding of the invention and the merits thereof and also to acquire a knowledge of the details of construction and the means for effecting the result, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a side view of a human face, portions of the cheek and jaw bone being removed to show the manner in which the invention is applied; Fig. 2 is a detail perspective view of the bearing frame and artificial tooth, the said members being separated; Fig. 3 is a side elevation of the bearing frame and artificial tooth, the base of the tooth being broken away to show the manner in which it is applied to the frame; Fig. 4 is a perspective view illustrating another embodiment of the invention; and Fig. 5 is a similar view illustrating still another modification, hereinafter specifically referred to.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

Specifically describing the present embodiments of the invention and referring now particularly to Figs. 1, 2 and 3, the numeral 1 designates a disk which may be of any desired shape and which constitutes the base or bottom of the bearing frame. Projecting upwardly from this disk are arms 2 which are connected at one or more intermediate points by transverse bracing or ribbing 3.

In the embodiment of the invention illustrated in Figs. 1, 2 and 3 the arms 2 extend substantially parallel to each other.

4 designates a head which may be secured in any desired way to the upper end of the arms 2, and to this head the tooth 5 is secured by solder or in any other desired way.

In the practical use of the invention, the frame, which is made up of the base, arms, and head, is designed to be inserted into a cavity of the correct size and shape drilled in the jaw bone, the disk 1 resting upon the bottom of the cavity so as to obtain a large bearing surface, while the arms 2 project upwardly with their extremities extending above the jaw bone so as to receive the head 4 and artificial tooth 5. In the course of time, the bone will close in around and through the frame, and the latter will thereby be held securely in position so as to form a solid bearing for the tooth. The transverse ribbing 3 may be soldered or otherwise connected to the arms 2 and serves to resist the pressure of the bone and to prevent the arms from moving sidewise, and also cooperates with the disk to form a firm bearing.

Obviously, in those cases where a number of teeth are being removed, two or more of these bearing frames may be installed at suitable positions, and the teeth bridged from one to the other, in the manner well known in the art of dentistry.

In that embodiment of the invention illustrated in Fig. 4, the arms 2^a of the frame diverge in an upward direction from the base 1^a and are connected by a plural number of ribbings or cross arms 3, and in this embodiment of the invention the head is mounted to rotate about a central axis, as indicated at 4^a. Furthermore the said head is provided with a detachable cap piece 6 secured to the head as by the tongue and undercut groove connection 7 shown, so that the tooth may be first soldered to the cap and the cap piece attached readily to the head of the frame, being turned to the desired position, being afterward cemented so that it is held firmly in place. Or, as illustrated in Fig. 5, the head there designated 4^b is held rigidly on the upper ends of the arms 2^b instead of being rotatably mounted thereon, the head 4^b being provided with a detachable cap 6^b.

In the practical use of those embodiments of the invention in which caps are employed, the tooth may be soldered onto the cap and the cap slipped onto the frame and then cemented so that it will be securely held in place.

The object in having a movable head is

that it is almost impossible in bridge work to insert the tooth frames in such a manner that the bridge will go on exactly right, and by having a movable head it can be adjusted.

It is to be understood that my improved frames may be made of gold, silver, platinum, porcelain, or any noncorrosive material.

Having thus described the invention, what is claimed as new is:

1. A bearing frame for an artificial tooth, comprising a disk, a plurality of arms secured to said disk and projecting upwardly therefrom and a head mounted on said arms for supporting a tooth.

2. A device as specified comprising a disk, a plurality of arms carried by said disk, cross braces positioned between said arms and a cap piece for holding a tooth detachably secured upon the outer extremities of said arms.

3. A device as specified comprising a base, arms upwardly extended from said base, ribs disposed across said arms at intermediate points thereof, a disk mounted upon the opposite ends of said arms, a head rotatably disposed on said disk, said head having a groove formed across the upper face of the same, a cap piece carried by a tooth, and a tongue formed on said cap piece for engagement in the groove in said head.

4. A device as specified comprising a base, arms upwardly extended from said base, a head rigidly carried upon the upper ends of said arms, said head having an undercut groove formed across the face thereof, a cap engaged on said head and secured to a tooth and a tongue formed on said cap for interlocking engagement with the groove in said head.

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

EDWIN J. GREENFIELD. [L. S.]

Witnesses:
THORNTON W. SARGENT,
EDNA CARNEFIX.