(No Model.)

S. S. BLOOM.

ARTIFICIAL TEETH.

No. 589,332. Patented Aug. 31, 1897.

Fig. 1.

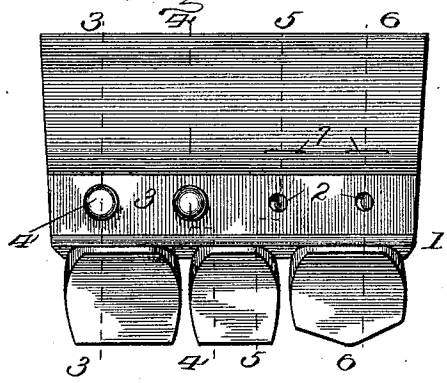


Fig. 2.

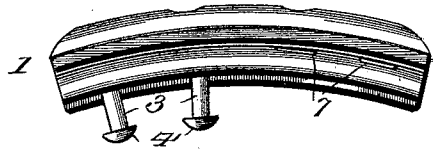


Fig. 3.

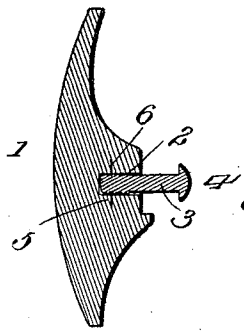


Fig. 4.

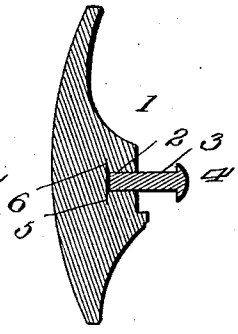


Fig. 5.

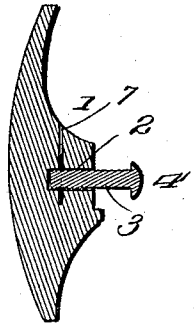


Fig. 6.

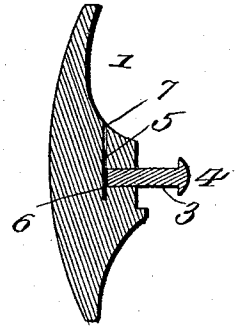


Fig. 7.

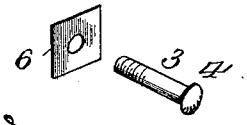
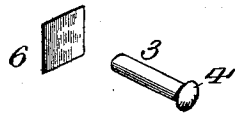


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

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ARTIFICIAL TEETH.

SPECIFICATION forming part of Letters Patent No. 589,332, dated August 31, 1897.

Application filed June 3, 1897. Serial No. 639,231. (No model.)

To all whom it may concern:

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

My invention has special reference to the means for securing artificial teeth to plates of vulcanite or other material; and the object of my invention has been to reduce the cost of said means and at the same time to increase the strength and efficiency of the junction.

In the accompanying drawings, Figure 1 is a rear elevation of a group of artificial teeth and gums constructed in accordance with my invention. Fig. 2 is a top view of the same. Figs. 3, 4, 5, and 6 are vertical sections on the lines 3 3, 4 4, 5 5, 6 6 of Fig. 1. Figs. 7 and 8 are detail views of certain parts detached.

In detail, 1 represents the artificial teeth and gums, which are constructed of porcelain or similar material baked in the usual manner. In the drawings there are shown four modifications of my improved fastening of said teeth to the vulcanite plate. In each case I provide in the porcelain teeth an elongated cavity 2 for the reception of the pin 3, having a head 4, the head projecting a sufficient distance outside the porcelain molding to permit its being used to secure said teeth to the vulcanite plate. In each case also said elongated cavity 2 opens into a shallow undercut recess 5, extending at right angles to said cavity, and in said recess there is in each modification a thin plate of metal 6.

In the construction illustrated in Figs. 3 and 4 the metal plate 6 is inserted in the shallow recess before the porcelain is baked, and in this case it is made of platinum or similar refractory material. In Fig. 3 said plate is shown as apertured, and the pin 3 is screw-threaded thereinto, and an important feature is that the plate is made of a thickness less than the distance between two successive threads of the pin. Thus the cost of making the female screw in the plate is avoided, and, moreover, the amount of platinum required is very small on account of the thinness of the plate. Yet notwithstanding that the plate is so thin it serves sufficiently well as an anchor for the pin, because the plate is held from bending or disfigurement by being snugly inclosed between the walls of the recess. The same remark applies to the construction shown in Fig. 4, in which the plate is not apertured, as in Fig. 3, but is soldered to the end of the pin 3. The main idea, then, embodied in the invention is that of anchoring the pin by means of a plate of metal very thin—thin enough to go between successive threads of the screw on the pin if threaded thereonto, but held snugly in a very shallow wide undercut recess extending at right angles to the pin.

In the construction shown in Figs. 5 and 6 I provide a slot 7, forming an extension of the shallow recess 5 and opening into the surface of the porcelain gum, as clearly shown in Fig. 2. Thus the plate 6 need not in this case be inserted in the porcelain teeth before baking, for it can be pushed into its place in the recess 5 through the slot 7. After it is in place it is secured to the pin 3 either by being threaded thereonto, as in Fig. 7, or by soldering, as in Fig. 6. By this arrangement I provide means whereby the pin may be securely anchored to the teeth without the use of platinum at all, a less refractory metal answering the purpose. Thus the cost is greatly reduced.

The plate may be made thin enough to be readily flexible, so that it may be pushed into place even though the slot 7 is not in alinement with the recess 5.

I claim—

1. The combination of a tooth of porcelain or the like material having an elongated narrow cavity opening into its side and a shallow wide undercut recess extending transversely to the narrow cavity and opening therefrom, a threaded pin in said narrow cavity and an apertured plate of metal in the shallow recess, said pin being threaded into said aperture, and said plate being of less thickness than the distance between successive threads of the pin, substantially as described.

2. The combination of a tooth of porcelain or the like material having an elongated narrow cavity opening into its side and a shallow wide undercut recess extending transversely to the narrow cavity and opening therefrom, a thin flexible plate of metal in the shallow recess, said recess being so shallow that the

plate fits snugly therein, being thereby prevented from bending in said recess, though thin enough to be flexible when removed therefrom, and a pin in the narrow cavity, secured to said plate by any suitable means, substantially as described.

3. The combination of a tooth of porcelain or the like material, having an elongated narrow cavity opening at one side of the tooth, and a shallow wide undercut recess extending transversely to the narrow cavity and opening therefrom and also opening into a side of the tooth, with a plate of metal passed into said recess through the latter opening and a pin in the cavity secured to said plate, substantially as described.

4. The combination of a tooth of porcelain or the like material, having an elongated narrow cavity opening at one side of the tooth, and a shallow wide undercut recess extending transversely to the narrow cavity and opening therefrom and also opening into a side of the tooth, an apertured plate of metal adapted to be passed into said recess through the latter opening and a pin in the cavity screw-threaded into said plate, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two subscribing witnesses.

SAMUEL S. BLOOM.

Witnesses:
RAYMOND P. SHERWOOD,
GEORGE H. HAM.