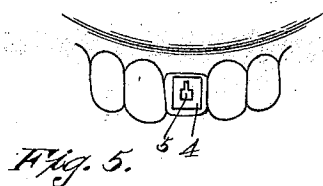
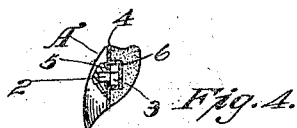
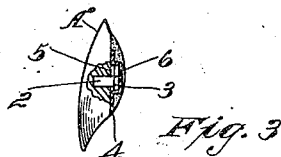
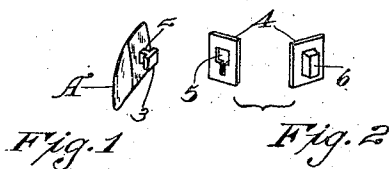


F. LA CHAPELLE.
REPLACEABLE TOOTH.
APPLICATION FILED JAN. 21, 1908.

959,358.

Patented May 24, 1910.



WITNESSES:

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UNITED STATES PATENT OFFICE

FRANCIS LA CHAPELLE, OF SAN FRANCISCO, CALIFORNIA.

REPLACEABLE TOOTH.

959,358.

Specification of Letters Patent.

Patented May 24, 1910.

Application filed January 21, 1908. Serial No. 411,925.

To all whom it may concern:

Be it known that I, FRANCIS LA CHAPELLE, a citizen of the United States, residing in the city and county of San Francisco and State of California, have invented new and useful Improvements in Replaceable Teeth, of which the following is a specification.

This invention relates to dentistry, and pertains especially to artificial teeth and bridge work.

The object of the present invention is to provide an interchangeable and replaceable artificial tooth, which will have the characteristics of being replaceable on a bridge without the necessity of taking off the bridge; which will be made strong and durable and thereby lessen to a minimum the likelihood of the tooth breaking or the necessity of its ever having to be replaced; that it will be so supported that no lateral or other motion of the tooth on the bridge will be possible; that a considerable saving of solder and gold will be effected in the bridge construction, and that altogether it will add strength to the bridge, be artistic in appearance, sanitary, strong, and simple and easy to manipulate.

The invention consists of the parts and the construction and combination of parts as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a perspective view of a porcelain tooth with its stud. Fig. 2 represents views of the opposite sides of the backing plate. Figs. 3 and 4 are side views partially broken away, of a tooth with its backing plate in place. Fig. 5 is a front view of a plurality of teeth showing one tooth removed.

A represents a porcelain tooth having a flat back, and into which tooth has been baked a locking member or projecting bolt or stud 2. Any suitable number of interlocking bolts or projections may be used, but I prefer to use a single one placed centrally in the tooth and securely anchored therein to give a solid and firm construction. This bolt has an oblong shank with the three-flanged head 3.

4 is a backing-plate which is secured to the bridge by solder or otherwise. This backing-plate has a slot 5 to receive the projection 2 on the tooth, the slot being made sufficiently wide at the top to admit the bolt, and having a narrowed downward extension

to embrace the shank of the bolt behind the head 3, and prevent the outward withdrawal of the tooth when the bolt has been inserted into the slot and slipped down into place. The length of the shank corresponds to the thickness of the plate, so that the parts will have a snug sliding fit; so that when the tooth is finally secured or cemented to the backing-plate, they will practically constitute one unitary rigid structure.

The back of the backing-plate has a cup-shaped projection 6 forming a housing over the slot 5, both for the purpose of excluding the solder from contact with the bolt or tooth, and of constituting a pocket or chamber for the cement in which the inserted bolt is embedded, and by which the tooth is finally and permanently secured in place. This cup or housing member 6 is secured to the backing-plate by any suitable means; either by sweating, or solder, or otherwise.

By baking the locking member 2 into the porcelain tooth, the latter is not weakened in any way, and is as strong as a facing of this sort can be made.

The facing and backing being joined by cement form a solid, rigid structure to resist strains and tensions, and the strength of the tooth is practically the strength of the bolt.

The tooth by having one oblong bolt near its center allows for a long overlap; and the bolt shank being square will not allow a lateral or other motion to the tooth.

The projecting cup or housing 6 on the back of the backing-plate results in a considerable saving of solder, as there is no need for solder over the box itself. Also, the box-shaped cup is a benefit to facing with solid cusps, as it helps to build out the solder, with a saving to the bridge maker.

While there is little liability of a tooth of this character breaking off after being once put on to the bridge, at the same time, this structure permits a tooth, if broken, to be readily replaced, without taking out the bridge.

By making the interlocking projections 2 and the backing-plates with their corresponding elongated slots of uniform and standard size, it permits interchangeability for all parts in contact.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

The combination with a veneer having a

headed lug projecting from its rear face, of
a backing comprising two plates, one being
arranged parallel to the rear face of said
vener and having a key-slot to receive said
5 lug, the other plate being imperforate and
furnished with a depression covering the
slot and lug and secured around its edge to
the slotted plate, whereby a closed recess is
formed containing the head of the lug and

adapted to be filled with cement for retain- 10
ing said head.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

FRANCIS LA CHAPELLE.

Witnesses:

LEONARD DARMS,
MARTIN ARONSOHN.