

No. 623,751.

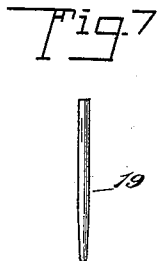
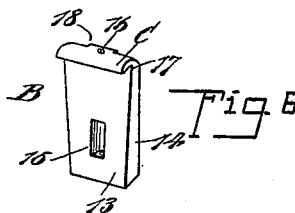
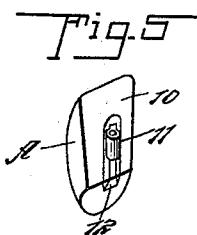
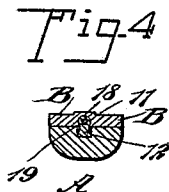
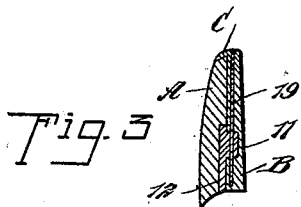
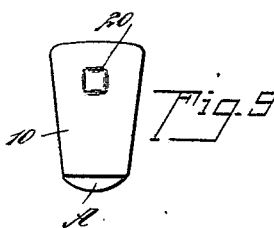
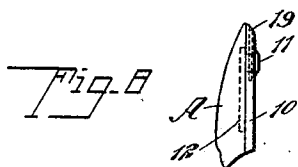
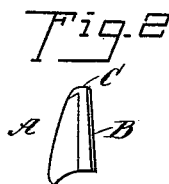
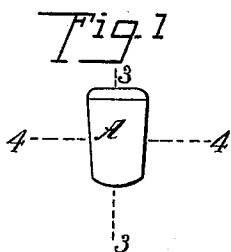
Patented Apr. 25, 1899.

C. WHITNEY.

ARTIFICIAL TOOTH CROWN AND BACKING.

(Application filed Oct. 20, 1898.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

CEPHAS WHITNEY, OF KINGSTON, JAMAICA.

ARTIFICIAL-TOOTH CROWN AND BACKING.

SPECIFICATION forming part of Letters Patent No. 623,751, dated April 25, 1899.

Application filed October 20, 1898. Serial No. 694,082. (No model.)

To all whom it may concern:

Be it known that I, CEPHAS WHITNEY, of Kingston, Jamaica, have invented a new and Improved Backing and Crown for Artificial Teeth, of which the following is a full, clear, and exact description.

The object of my invention is to provide a backing and crown for artificial teeth so constructed that the facing or porcelain, if fractured or damaged, may be expeditiously and conveniently removed from the said backing and another porcelain or facing as conveniently substituted.

A further object of the invention is to provide a crown or cap for the porcelain which will serve materially to hold the porcelain in proper position and will furthermore act to prevent the porcelain from chipping or fracturing at its cutting edge.

Another object of the invention is to provide a backing for artificial teeth which will enable a tooth to be applied to crown or bridge work in the customary manner, if so desired.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a front elevation of an artificial tooth to which the improvement is applied. Fig. 2 is a side elevation of the tooth shown in Fig. 1. Fig. 3 is a vertical section taken substantially on the line 3 3 of Fig. 1. Fig. 4 is a horizontal section taken practically on the line 4 4 of Fig. 1. Fig. 5 is a perspective view of an artificial tooth viewed from the rear, illustrating its rear face prepared to receive the combined backing and crown. Fig. 6 is a detail perspective view of the combined backing and crown, and Fig. 7 is a detail view of a pin or key that is employed to connect the backing and crown to the tooth. Fig. 8 is an edge view of a tooth provided with a backing of slightly-modified construction, and Fig. 9 is a back view of the tooth shown in Fig. 8.

The porcelain A is such as is ordinarily employed in the construction of artificial teeth,

and the back 10 of the porcelain, as shown in Fig. 5, is provided with one or more eyes 11, which eye or eyes may be secured to the porcelain in any suitable or approved manner. A single eye is illustrated in Fig. 5, which is attached to a plate 12, the said plate being countersunk in the back of the porcelain and held therein by dovetailing or by cement or other suitable means.

In Fig. 6 I have illustrated the backing B combined with a crown C. The backing B is preferably of metal, and the metal may be of any character, although any other hard substance suitable for the purpose may be employed. The backing is usually made tapering, its front face 13 being flat, so as to fit snugly against the rear face of the porcelain, the outer face 14 of the backing being inclined; but, if desired, the backing may be of uniform thickness from top to bottom. The backing is provided with one or more openings 15, according to the number of eyes 11 employed in connection with the porcelain. Each opening 15 in the backing is adapted to receive an eye 11, and the backing B is furthermore provided with a bore or a longitudinal aperture 16, extending from the top to the bottom, and the said aperture or bore is so placed that it connects with the opening or openings 15 in the said backing, as shown also in Fig. 6.

At one end of the backing B the crown C is located, which crown when employed is preferably continuous with the backing and extends beyond its inner face, the under surface of said crown being more or less undercut, as illustrated at 17 in Fig. 6.

If in practice it is desired, the backing may be reinforced by a rib 18, which extends along its outer face at the center from top to bottom, the opening or openings 15 being carried through said rib.

In practice the backing is placed upon the rear face of the porcelain, the eyes 11 of the porcelain being made to enter the openings 15 in the backing. When the backing is so placed on the porcelain, the crown C will extend over and neatly receive the biting or cutting edge of the porcelain, as is illustrated in Figs. 1, 2, and 3. The backing is firmly secured to the porcelain by passing a pin or a key 19 (the lower end whereof is ordinarily tapering) through the

bore or aperture 16 in the backing and through the eye or eyes 11, attached to the porcelain and received within the openings 15 of the backing. When a porcelain becomes fractured or otherwise damaged, it may be readily removed by abstracting the pin or key 19, whereupon it may be expeditiously and conveniently replaced by a perfect porcelain.

A porcelain provided with the improved backing and crown may be attached to crown and bridge work in the customary or in any desired manner.

As shown in Figs. 8 and 9, the crown C may be omitted, and the backing may be provided with an offset 20, caused by striking out the material of said backing when producing therein the opening or recess 15.

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

1. The combination, with a porcelain provided with an eye at the back, of a backing fitted to the rear surface of the porcelain and provided with an opening to receive the eye and a bore connected with the opening, and

a key fitted to the said bore, and adapted to pass through the said eye of the porcelain, for the purpose specified.

2. The combination, with a porcelain having an eye at the back, of a backing having an opening to receive the eye, a bore extending through the backing from top to bottom, connecting with the said opening, a key adapted to be passed through the said bore and the eye of the porcelain, and a projection from one end of the backing, which projection is arranged to fit over the cutting edge of the porcelain, said projection serving as a crown for the porcelain, as described.

3. In artificial teeth, a backing-plate and a porcelain, said parts being provided with complementary registering offsets from a longitudinal plane having engaging transverse surfaces and registering holes, and a locking-pin insertible in said holes.

CEPHAS WHITNEY.

Witnesses:

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