

(No Model.)

W. L. MASON.
DETACHABLE PORCELAIN TOOTH CROWN.

No. 566,695.

Patented Aug. 25, 1896.

Fig: 1.

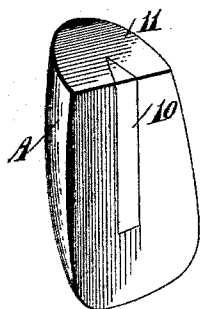


Fig: 2.

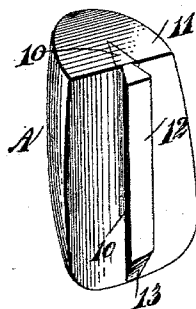


Fig: 3.

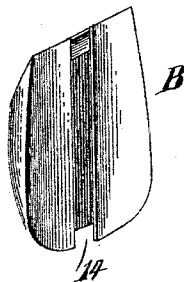
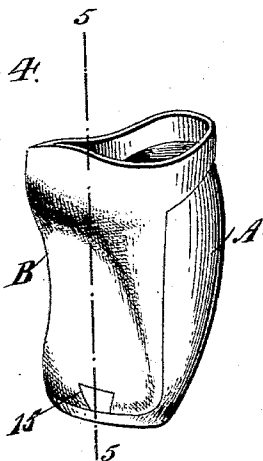


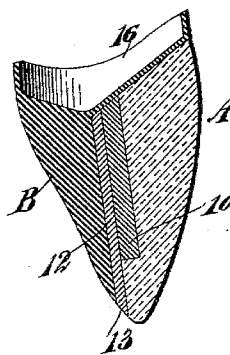
Fig: 4.



WITNESSES:

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Fig: 5.



INVENTOR

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DETACHABLE PORCELAIN TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 566,695, dated August 25, 1896.

Application filed December 20, 1895. Serial No. 572,785. (No model.)

To all whom it may concern:

Be it known that I, WALTER L. MASON, of Red Bank, in the county of Monmouth and State of New Jersey, have invented a new and Improved Detachable Porcelain Tooth-Crown, of which the following is a full, clear, and exact description.

My invention relates to an improvement in dentistry, and especially to an improvement in detachable porcelains for crown and bridge work, the object of the invention being to provide a porcelain which may be employed as a finished tooth, either in connection with bridgework or in connection with the natural root, and, furthermore, to provide a means whereby the porcelain may be conveniently and expeditiously removed from its support and replaced in as convenient and ready a manner, the operation of removing and returning or replacing the porcelain being accomplished without the necessity of interfering with the support therefor.

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 perspective view of the improved porcelain, viewed from the inside, and also a perspective view of the tongue adapted for attachment to the said porcelain. Fig. 2 is a perspective view of the porcelain viewed from the inside, illustrating the tongue as applied thereto. Fig. 3 is a perspective view of a backing for the porcelain shown in Figs. 1 and 2 and viewed from the back. Fig. 4 is a perspective view of a porcelain fitted to a backing which is adapted for attachment to a natural root, and Fig. 5 is a vertical section taken substantially on the line 5 5 of Fig. 4.

In carrying out the invention the porcelain A is provided with a metallic strip 10, which is embedded and secured in any suitable or approved manner in the body of the porcelain, extending from its upper or gum section 11 to a point at or near the bottom, and the back or outer face of the strip 10 is made flush with the back surface of the porcelain; or, in other words, as the back of the porce-

lain is ground down to a proper surface the metallic surface is ground proportionately or evenly with the aforesaid porcelain. In the drawings the metallic strip 10 is shown as of wedge shape, and is embedded in the porcelain when in a plastic state, and is then baked therein, although it may be otherwise secured to place.

The metallic strip 10, forming virtually an integral portion of the porcelain, is adapted as an anchorage for a bar 12, which is preferably made dovetail-shaped in cross-section, the said bar being brazed, soldered, or otherwise secured to the aforesaid metallic or anchorage strip 10 throughout the length of the latter; and also, preferably, the lower end of the dovetail bar 12 is provided with an inclined surface 13, the inclination being downward and forward, meeting the lower edge of the porcelain, as shown in Fig. 2, and in attaching the dovetail strip 10 to the porcelain the narrower longitudinal surface is that which is secured to the anchorage-strip 10.

Such a strip applied to a porcelain enables a backing B to be attached in a convenient and expeditious manner, the said backing, no matter of what material it may be made, being provided with a dovetail slot 14 in that face which is adapted for engagement with the inner face of the porcelain, and the aforesaid dovetail slot 14 of the backing will neatly receive the dovetail bar 12 of the porcelain, the inclined lower end of the bar serving to facilitate the introduction of the bar into the aforesaid slot, and the lower end of the dovetail slot 14 is carried through the inner face of the backing, as illustrated at 15 in Fig. 4, in order that the backing and the bar may be soldered or brazed, if in practice it is found desirable, or the backing and the porcelain may be otherwise held firmly together.

The cross-section shown in Fig. 5 illustrates a backing and a porcelain, the former being provided with an upper band 16, adapted for engagement with a natural root. This strip 10 forms the connection between the dovetail rib and the porcelain, and the importance and necessity of making the strip 10 separate from the dovetail rib 12 results from the necessity of making the surface of the porcelain a true and unbroken plane, which is accomplished by grinding off the said surface, and if such

grinding be attempted with the dovetail rib applied it will in nearly all, if not in every instance, result in a marring of the said rib by the grinding-tool, which marring of the dovetail rib would not only detract from its efficiency, but would tend to permit a jarring of the porcelain and a rapid loosening thereof. Apart from such objection it would be practically impossible to grind the surface of the porcelain true subsequent to the application of the dovetail rib.

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

1. An artificial tooth comprising a backing

having a dovetail groove, the porcelain, an anchorage-strip secured in said porcelain and true and flush with the inner face thereof and a separate dovetail rib secured to said anchorage-strip and fitted to the groove of the backing substantially as set forth.

2. In an artificial tooth, the porcelain having at its inner face an anchorage-strip secured in the porcelain and a separate dovetail rib secured to said anchorage-strip, substantially as set forth.

WALTER L. MASON.

Witnesses:

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