(No Model.)

T. O. PAYNE.

ARTIFICIAL TOOTH.

No. 453,703. Patented June 9, 1891.

Fig 1

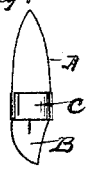

Fig 2.

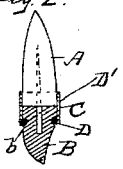

Fig 3.

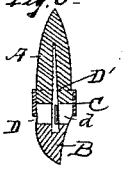

Fig 4. Fig 5.

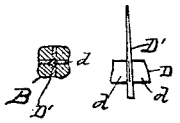

Fig 6

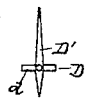

Fig 7

Fig 8

WITNESSES

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THOMAS O. PAYNE, OF VICKSBURG, MISSISSIPPI.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 453,703, dated June 9, 1891.

Application filed November 24, 1890. Serial No. 372,521. (No model.)

To all whom it may concern:

Be it known that I, THOMAS O. PAYNE, a citizen of the United States, residing at Vicksburg, in the county of Warren and State of Mississippi, have invented certain new and useful Improvements in Artificial Teeth; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to artificial teeth, and has for its object the provision of means for reliably securing a tooth-crown to the metal band, which embraces both the neck of the crown and the outer end of the tooth. It embraces, also, improvements in the construction of the attaching means whereby the pivot is secured to the crown, which attaching means are also made to serve as a connection to the band above referred to.

The invention consists in the hereinafter-described improvements in the construction of artificial teeth, which are pointed out in the claims.

The following detail description will more fully explain the nature and purpose of my said invention, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of the crown and root with the metal band in place. Fig. 2 is a sectional view of the crown with a metallic ring set in a groove. Fig. 3 is a longitudinal section of Fig. 1, with the pivot and wings. Fig. 4 is a transverse section of the same, taken through the wings. Fig. 5 is a detached view of the pivot and wings. Fig. 6 is a detached view of the pivot and pins. Fig. 7 is an elevation of a tooth-crown and pivot having the pins. Fig. 8 is a plan view of the tooth-crown, showing the transverse incisions for the wings.

Similar letters of reference indicate corresponding parts in the figures where they occur.

A is the root of a tooth, and B is the crown.

C is the metal band covering the joint between the neck of the crown and the lower end of the root.

D in all the figures where it appears indicates the exposed metallic surface to which the band C is to be soldered or secured.

In Fig. 2 it is shown as a ring set around the crown in an annular groove *b*, while in the remaining figures it represents the exposed edges or ends of the arms.

Where the arms are employed, they are secured upon a pivot D′, which enters the crown and the root. This pivot is of the usual kind and has my radial arms *d* at the crown end, which are secured in incisions or bores in the crown, and whose edges or ends lie flush with the surface of the crown and form the exposed metallic surfaces D above referred to.

As already stated, the number of the arms may vary. One alone can be used with good results, and two or more, if desired.

The arms may be made in the form of radial wings or plates, as shown in Figs. 3, 4, and 5, or as radial or transverse pins, as shown in Figs. 6 and 7. The wing form will be found equally convenient for use in crowns already prepared where they are to be inserted by the operator, or where they have the crown formed upon them while in the plastic state and then baked. When they are to be inserted in a crown already prepared, an even number of wings set in pairs diametrically opposite on the pivot will be found most convenient as a central bore for the pivot and transverse incisions extending directly across the neck of the crown will receive the pivot and wings snugly, and, as will be readily seen, such provision for the reception of the pivot and wings can be quickly and easily made and does not require special skill nor complicated instruments, a reamer and saw being sufficient. The pin form of arms is more especially designed for use when the pivot and arms have the crown built upon them while in the plastic state and then baked; but the pin or pins can also be inserted after the crown is baked by boring directly through the crown and pivot. The band C, which is set over and soldered to the exposed ends of the transverse pins, will hold them securely in place when thus inserted. After the pivot and arms are in place in the crown the band C is secured to the exposed surfaces D by solder or cement, and the exposed part of the pivot is pushed into the opening prepared in the

root until the neck of the crown meets the base of the root. The crown can be made with grooves or holes in it from circumference to center to admit wings or pins either before or after the tooth is baked without being attached to the pivot.

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

1. A tooth-crown having a central metallic pivot for securing it to the root, and radial arms secured to said pivot and extending out sidewise to the surface of the crown, and a metal band covering the joint between the root and crown and soldered to the exposed ends of the arms, as set forth.

2. The combination of a crown having radial incisions and a central bore with a pivot having radial wings extending to the circumference of the crown, as set forth.

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

THOMAS O. PAYNE.

Witnesses:
WM. WAGGENER,
JESSE BROWN.