

C. H. MACK.

Improvement in Artificial Teeth.

No. 123,271.

Patented Jan. 30, 1872.

Fig. 1.



Fig. 2.



Fig. 3.



Fig. 4.



Fig. 5.



Fig. 6.



Witnesses

Jas. H. Ellis
J. V. White

Inventor

C. H. Mack

Per.

M. Alexander
Atty.

UNITED STATES PATENT OFFICE.

CHARLES H. MACK, OF PORTLAND, OREGON.

IMPROVEMENT IN ARTIFICIAL TEETH.

Specification forming part of Letters Patent No. 123,271, dated January 30, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, C. H. MACK, of Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Artificial Teeth; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon which form a part of this specification.

This invention has for its object the connecting and permanently securing to the natural root an artificial crown; and consists in providing the crown with an under-cut or dovetail mortise, by means of which it is secured to the root, substantially as hereinafter set forth.

To enable others skilled in the art to which my invention relates, I will now describe its construction and mode of operation.

Figure 1 is a section of the crown, showing the under-cut or dovetail mortise. Fig. 2 is a bottom view of the same. Fig. 3 is a side view of the root. Fig. 4 is a front view of the root, showing the screws. Fig. 5 is a modification of the crown, and Fig. 6 is a cross-section of the same.

A represents the under-cut or dovetail in the artificial crown, and *b b* the pins in the root. I first fill the nerve-cavity in the root with gold or other appropriate filling, and then, at the anterior and posterior side of the filling, I drill into the solid dentine a hole for the admission of the pins *b b*, upon which are cut small screw-threads. The pins are then firmly secured in the holes. I now fill the under cut with a fusible metal—one that will fuse at a low degree of temperature, (such as the compound known as Wood's fusible metal)—and while yet soft I press the crown firmly over the pins *b b*.

It will be particularly observed that the top of the root is slightly excavated, and the bottom of the crown so rounded or shaped as to fit snugly therein. Thus the two parts, when joined together as described, will form a strong and durable tooth.

I am aware that artificial crowns have been

provided with round holes for the insertion of single pins; but it is observed that it will be impossible to so firmly secure the crown to the fang as in my method of constructing the mortise, for two reasons: first, because the round hole will not retain the fusible alloy so well; and secondly, because the crown is only secured at the center instead of both the anterior and posterior portions thereof. I am also aware that artificial gums have also been constructed with dovetail slots; but the principle involved is totally different from that shown in my invention, as my object is to use the natural fang in connection with an artificial crown, and so securing the two that a tooth may be inserted as good and as strong as if grown in the mouth, without the pain of extracting the root. I am also aware that a recess has been formed on the outer surface of the crown; but this differs from my invention, as the mortise thus constructed will not retain or hold the fusible alloy.

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

1. An artificial tooth-crown for pivot-teeth, with an elongated mortise extending toward the labial and back toward the lingual surfaces sufficiently far to receive two pins or screws located in the anterior and posterior portions of the fangs, said mortise or under-cut being dovetailed or otherwise shaped to retain firmly its fill of fusible alloy, substantially as set forth.

2. An artificial crown, provided with an under-cut or dovetail mortise, in combination with two continuous screw-pins, said pins being firmly secured in the solid dentine of the natural fang or root, and the two parts held together by means of a fusible alloy in said under-cut, substantially as herein described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

CHAS. H. MACK.

Witnesses:

T. H. ALEXANDER,
C. ALEXANDER.