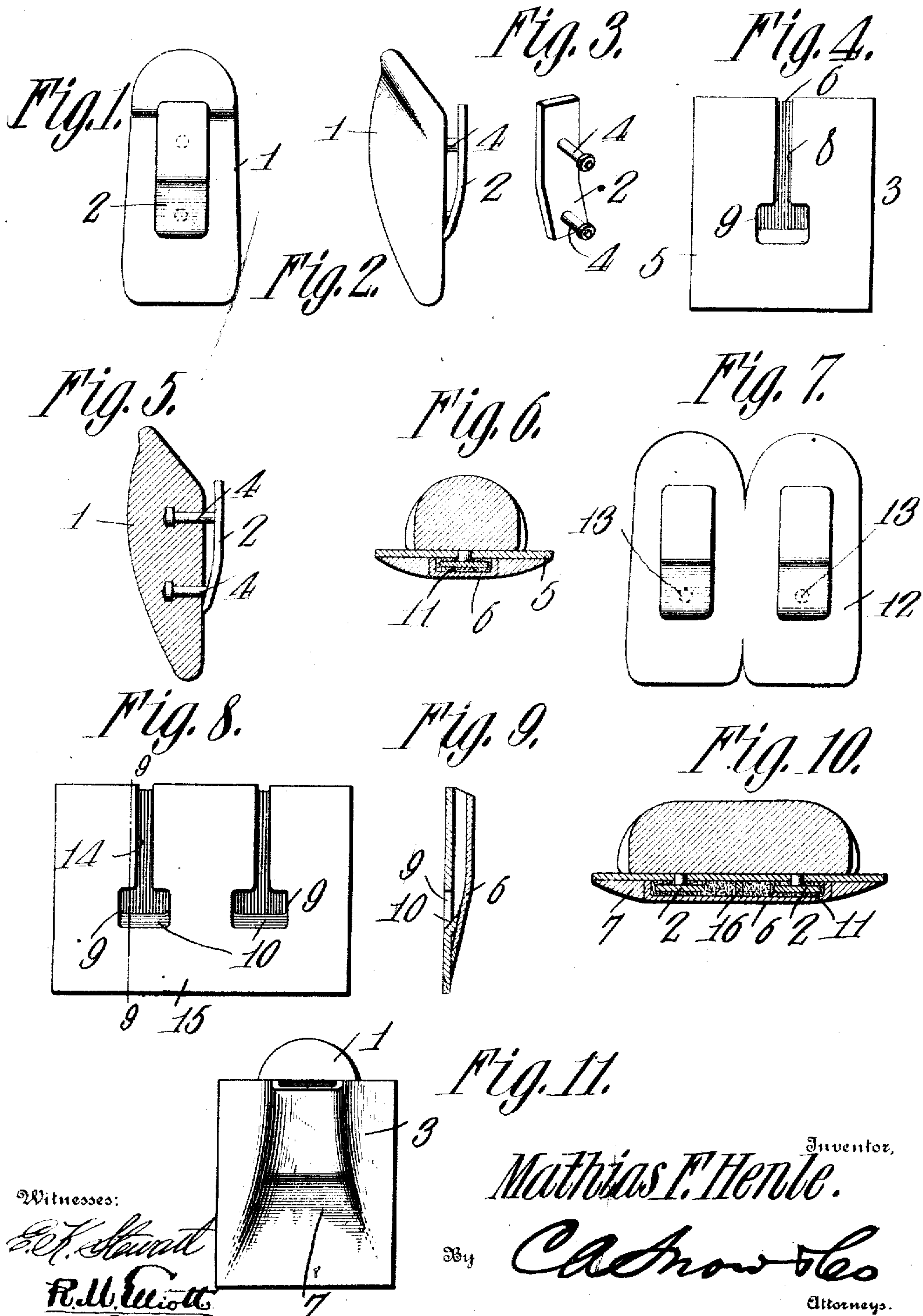


M. F. HENLE.
ARTIFICIAL TOOTH.
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918,210.

Patented Feb. 23, 1909.



Witnesses:

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Fig. 11.

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UNITED STATES PATENT OFFICE.

MATHIAS F. HENLE, OF LYONS, IOWA.

ARTIFICIAL TOOTH.

No. 913,210.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, MATHIAS F. HENLE, a citizen of the United States, residing at Lyons, in the county of Clinton and State of Iowa, have invented a new and useful Artificial Tooth, of which the following is a specification.

This invention relates generally to artificial teeth, and particularly to an improved form of bridge work.

The objects of the invention are to simplify and strengthen the connection between the facing and the backing, and in such manner that, with a measurable decrease in the amount of gold used in the backing, the stability of the assemblage between the parts will be substantially increased; to facilitate the assemblage of the facing and the backing; to enable repairs to be done in the quickest possible time; and, generally, to improve the structural arrangement of the bridge work.

With the above and other objects in view, as will appear as the nature of the invention is better understood, the same consists in the novel construction and combination of parts of dental bridge work, as will be hereinafter fully described and claimed.

In the accompanying drawings forming a part of this specification, and in which like characters of reference indicate corresponding parts, Figure 1 is a view in elevation, taken from the rear of a tooth, showing more particularly the anchor or shoe for holding the facing or tooth assembled with the backing. Fig. 2 is an edge view of the facing shown in Fig. 1. Fig. 3 is a perspective detail view of the anchor shown in Figs. 1 and 2. Fig. 4 is a view in elevation of a section of backing. Fig. 5 is a view in vertical longitudinal section, on an enlarged scale, of a facing having the anchor shown applied thereto. Fig. 6 is a transverse section through a facing showing the backing applied thereto. Fig. 7 is a view in rear elevation of a facing showing the same provided with two shoes or anchors. Fig. 8 is a view in elevation of a section of the backing to be used in connection with the facing shown in Fig. 7. Fig. 9 is a vertical sectional view taken on the line 9—9 of Fig. 8. Fig. 10 is a transverse sectional view through the facing shown in Fig. 7, with the backing applied thereto. Fig. 11 is a view in rear elevation of one of the backings.

Referring to the drawings, and to Figs. 1

to 6 thereof, 1 designates the facing or tooth, 2 the anchor or shoe, and 3 the backing. It is to be understood that the improvements hereinafter described are adapted for use in positioning any desired number of teeth, and, as the procedure observed will be the same with one or more teeth, only a single one is shown. It is also to be understood that the backing will be made in lengths for mounting one or more teeth, and as this will be readily understood, only a sufficient length of such backing is shown as will be necessary to mount a single tooth. The anchor 2 carries two headed pins 4 which, as usual, are embedded in the facing at the time it is made, and the anchor is bent at an angle to its length at a point adjacent to the lowermost pin, and its free end bears against the rear wall of the facing, as clearly shown in Fig. 5. The remaining length of the anchor from the lowermost pin upward is disposed approximately parallel with the rear wall of the facing.

The backing 3, consists of a plate 5 and an anchor socket or seat 6, the latter being stamped up to the proper shape and secured to the back of the plate by solder, and, in order to cause the lingual side of the backing to be smooth, thus to obviate the retention of food particles or of presenting a rough surface to the tongue, solder is flowed around the back of the socket, as shown at 7 in Figs. 10 and 11. The socket is exhibited as being an approximate open-sided rectangle in cross section, but this contour may be varied if found necessary or advantageous, without departing from the scope of the invention, or in the least detracting from its utility.

As shown in Fig. 9, the socket 6 is approximately wedge-shaped in longitudinal section, the thinnest edge being at the lower portion of the backing, thus to cause the lingual side of the backing, at the edge of the teeth, to be but slightly thicker than the backing itself, and this will materially add to the comfort of the user of the bridge work.

As will be seen by reference to Fig. 4, the backing is provided with a longitudinal slot 8, of a width approximately that of the pins 4 and which extends from its upper edge to a point adjacent to its lower edge, at which point it is laterally enlarged at 9 to permit entrance of the anchor, the lower wall of the slot being inturned to bear against the

back wall of the socket, as shown at 10, to assist in positioning the facing with the backing.

By reference to Fig. 6 it will be seen that the anchor is of less length and thickness than the space formed by the socket, the object of this arrangement being to provide space to apply a suitable cement or adhesive 11 around that portion of the anchor within the socket, thus firmly to secure the facing in position. As the facing is held assembled with the backing by contact between the inner face of the anchor and the inner wall of the backing on each side of the slot 8, it will be apparent that the greater the upper pressure exerted upon the tooth or facing, the more firmly it will be wedged in place, so that the material used for holding the facing combined with the backing need not be of an exceedingly hard character, whereby the removal of the facing for any purpose will be materially facilitated.

In the form of the invention shown in Figs. 7 to 10, the only difference is that the tooth or facing 11 has two anchors secured to it and has but a single pin 13 for holding

each assembled with the facing, although two may be employed if desired. Of course, where two anchors are employed, the backing will be provided with two pin receiving slots 14, and the section 15 of the backing separating the two slots is held spaced from the socket 6 by a spacer 16 that is soldered in position. With this exception, the two devices are the same in construction and mode of assemblage.

I claim:—

An artificial tooth comprising a flat facing carrying an anchor and a flat backing provided with a T-shaped slot and with a socket secured back of the slot, one end wall of the slot being intumed to bear against the back wall of the socket to serve as a guide in assisting the positioning of the anchor within the socket.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MATHIAS F. HENLE.

Witnesses:

A. T. MILLER,
JOSEPH H. GASPER.