No. 646,603. Patented Apr. 3, 1900.

H. R. NEHRBASS.

ARTIFICIAL TOOTH.

(Application filed June 3, 1899.)

(No Model.)

Fig. 1.

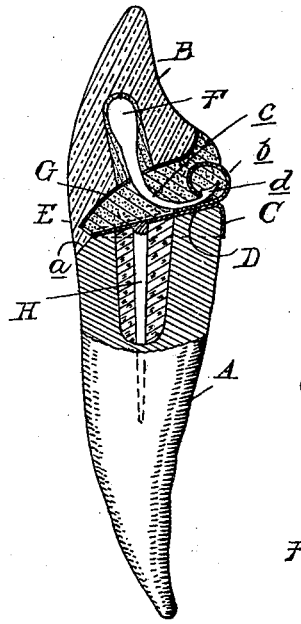


Fig. 3.

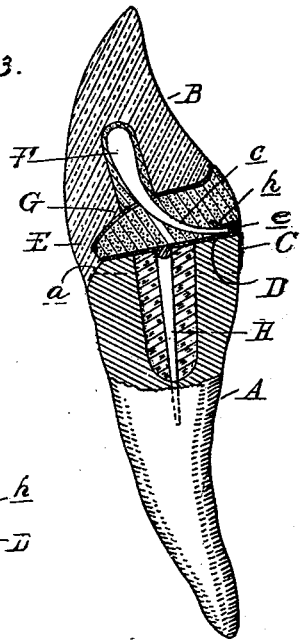


Fig. 4.

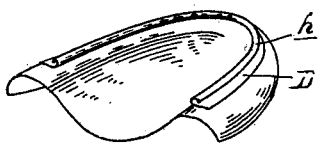


Fig. 2.

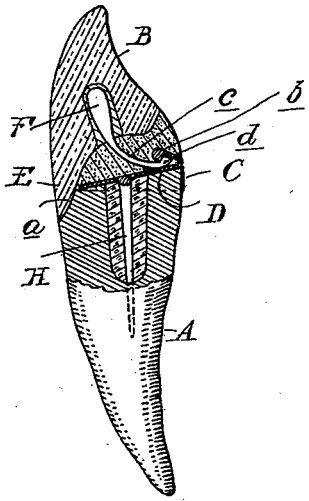
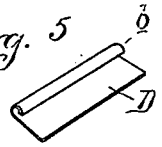


Fig. 5



Witnesses
H. C. Smith.
H. M. Dogherty.

Inventor
Hermann R. Nehrbass
By Thos. Sprague & Sons.
Attys.

UNITED STATES PATENT OFFICE.

HERMAN R. NEHRBASS, OF HARTFORD, WISCONSIN.

ARTIFICIAL TOOTH.

SPECIFICATION forming part of Letters Patent No. 646,603, dated April 3, 1900.

Application filed June 3, 1899. Serial No. 719,176. (No model.)

To all whom it may concern:

Be it known that I, HERMAN R. NEHRBASS, a citizen of the United States, residing at Hartford, in the county of Washington and State of Wisconsin, have invented certain new and useful Improvements in Artificial Teeth and Methods of Fitting Same, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to the construction of artificial teeth, whereby they may be more readily attached and accurately positioned as crowns to roots or upon plates.

The invention further consists in the method of attaching such teeth, and, further, in the construction, arrangement, and combination of parts, as more fully hereinafter described.

In the drawings, Figure 1 is a vertical section of an artificial crown, showing it attached to a natural root. Fig. 2 is a similar section showing a slightly-modified form of hook connection and with the back plate for the crown omitted. Fig. 3 is a similar section showing a slightly-modified form of construction of part of my invention. Fig. 4 is a perspective view of a plate for artificial teeth, showing my improved base-plate applied thereto. Fig. 5 is a perspective view of a strip of the base-plate.

In the said drawings, A represents a tooth-root which has been smoothed off for the reception of a crown, such as B. In applying such a crown the operator fits a band C around the upper portion of the root. In this case I have shown the band as extending not quite the entire distance around the root, and at the portion where the band does not extend I have shown the root provided with the bevel portion *a*, which preferably extends just beneath the cam and is at the outside of the tooth. The operator next fits upon the top of the tooth a section of base-plate D. This base-plate may have formed integral therewith at one edge a hook or flange *b*. This hook or flange, it is obvious, however, may be attached as a separate piece, as shown in Fig. 1, although I prefer to have the base-plate and the hook integral, as shown in Figs. 2, 3, 4, and 5. The base-plate is secured to the band C, and being cut off and fitted the band and base-plate together make in effect a cap for the root. The crown B, I preferably make with an extension E, which forms a lap-joint or bearing with the bevel portion *a* when in position on the root. Engaging in the usual socket in the crown is a crown-pin F, which projects therefrom and is adapted to be detachably connected with the base-plate for the purpose of positioning the crown.

Where I expect to use a solder filling between the crown and a base-plate, I preferably employ a backing-plate G, through which I pass the crown-pin and to which it is secured at the point where it passes through. This backing-plate I fit to the under face of the crown, and the crown, with the backing-plate and crown-pin therein, is placed upon the top of the root. The crown-pin preferably has a curved portion *c*, which is flexible or bendable, and its end portion is adapted to engage with a hook or flange *b* upon the base-plate. In Fig. 1 I have shown a crown-pin provided with a hook or catch *d*, which interlocks with the hook upon the base-plate. In Fig. 2 I have shown a similar engagement of parts with a slightly-different form of hook for the base-plate. In Fig. 3 I have shown simply a straight end portion *e* on the crown-pin engaging between a flange or hook *h*, the flange or hook being either a spring-hook or being so placed as to make a frictional engagement with the end of the crown-pin for the purpose hereinafter described. When the crown-pin is thus engaged with the flange on the base-plate, the extension E bears upon the bevel *a*, and the crown will be held in position by this engagement. The operator now moves the crown around, up or down, or sidewise, bending the bendable portion of the crown-pin as desired and grinding or fitting the lap-joint until the crown is positioned in just the desired relation upon the root. In order to hold the parts in their position more firmly, I usually place some temporary filling compound between the crown and the base-plate—such, for instance, as wax—which steadies the crown somewhat and assists in holding it in just the proper relation after it has been positioned in the manner described. The operator now removes the base-plate, with the positioned tooth thereon, and these parts are now invested in plaster in the ordinary manner common to dentistry, leaving

an opening in the plaster coinciding with the opening between the crown and the base-plate at the rear, as plainly shown in Figs. 1, 2, and 3. While thus invested, the wax filling is removed, and in its place is put some permanent solder or cement, which thus assumes the perfect shape of the space between the crown and the base-plate, besides involving the lower end of the pin therein and securely fastening all the parts together. This head, with the anchor H secured to the base-plate and projecting below and with the crown-pin projecting from the upper surface, is now again placed upon the root, the anchor H is cemented in its position in the root, and the crown-pin cemented in its socket in the crown. It will thus be seen that the crown-pin acts as a temporary brace or stay, by means of which I may position the tooth and by which it will be held temporarily with sufficient firmness to enable me after it is thus positioned to invest it in the plaster and make the permanent filling between the crown and the base-plate in the manner described without disturbing the proper relation between these parts. Where I make this permanent filling or head of porcelain, I may omit the back-plate G, as shown in Fig. 2.

In using this improvement upon the plate I preferably attach the base-plate D thereto at the desired height and in the desired relation and then position the tooth or teeth thereon, using the crown-pin, &c., in the manner previously described.

I believe I am the first to make a temporary connection in the way of a brace between a base-plate or tooth-cap and a crown which will hold the tooth in its positioned relation until a permanent connection may be made, as I am also the inventor of the subject-matter of the claims now following.

What I claim as my invention is—

1. The combination with a base-plate, of a tooth-crown and a brace extending between the crown and plate, and means by which said brace may be adjusted to change the angular relation between the crown and plate.

2. The combination with a base-plate, of a tooth-crown and a crown-pin, having a flexible portion between the crown and plate, whereby the position of the crown may be adjusted by bending the pin, in positioning the tooth.

3. The combination with a base-plate, of a tooth-crown having a lap bearing on its outer edge, and an adjustable connection between the crown and plate on the other edge.

4. The combination with a base-plate of a tooth-crown having a lap bearing on its outer edge, and a crown-pin connecting the crown and plate at the other edge, said pin having a bendable portion to permit adjustment.

5. The combination with a base-plate, a crown, a crown-pin, an interlocking connection between the base-plate and crown-pin, and means by which said brace may be adjusted to change the angular relation between the crown and plate in positioning the same.

6. The combination with the base-plate, a flanged hook thereon, and a crown-pin, having its end portion adapted to detachably engage therewith.

7. The combination with the base-plate, a flange or hook thereon, a crown-pin, having a curved end, a hook therefor, the hooked end of the crown-pin being adapted to detachably engage the hook on the base-plate.

8. A base-plate for tooth caps or plates, consisting of a plate and a flange or hook with which a crown-pin is adapted to be engaged.

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

HERMAN R. NEHRBASS.

Witnesses:

J. C. RUSSELL,

W. H. RUSSELL.