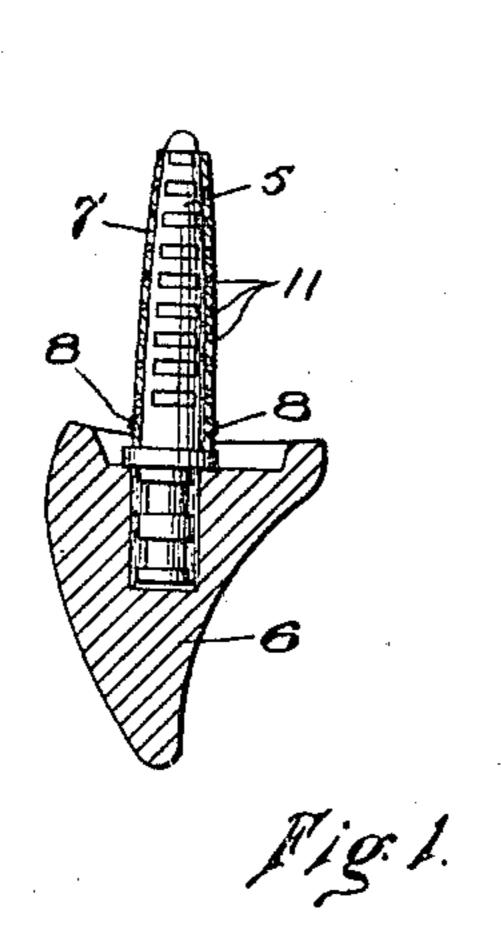
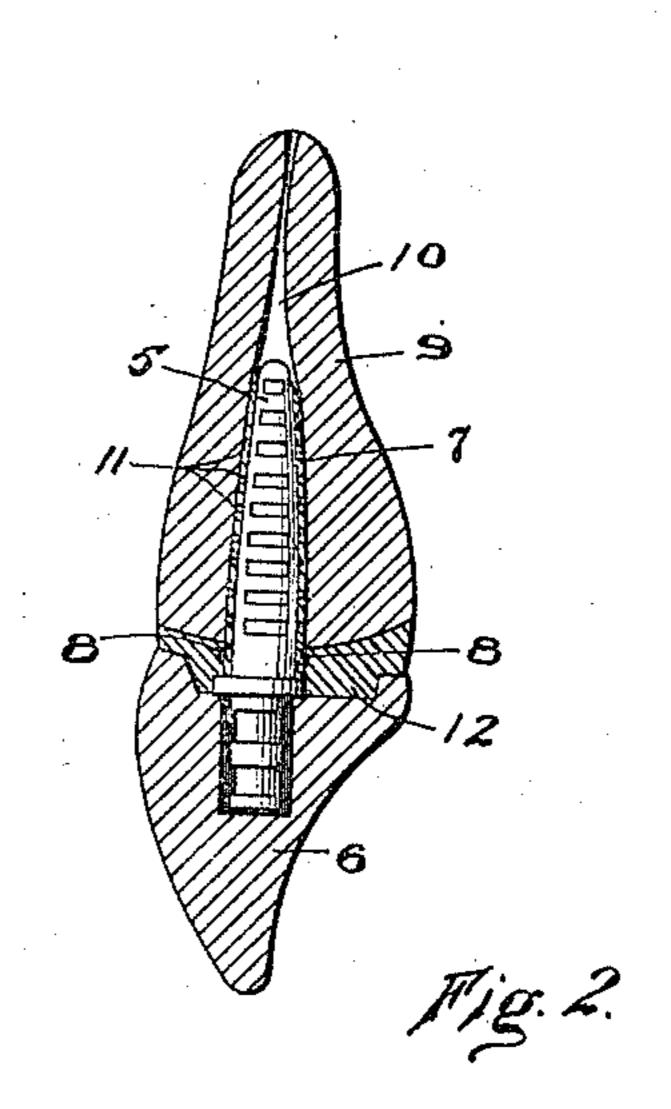
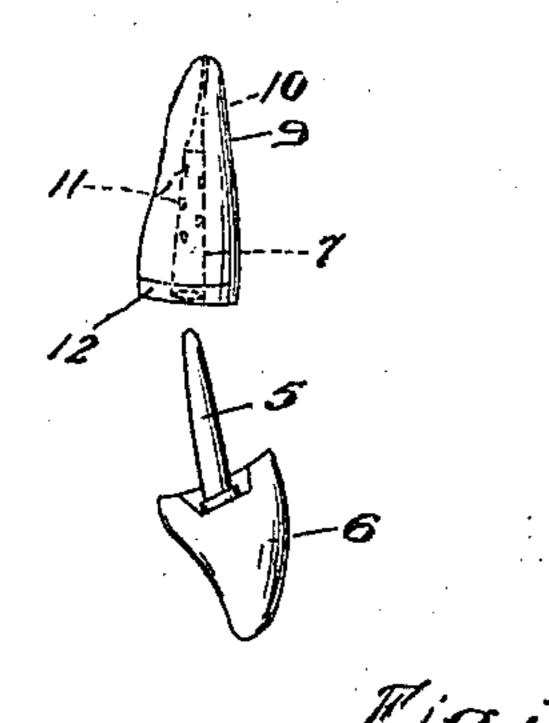
## G. E. STALLMAN. TOOTH, APPLICATION FILED DEC. 3, 1909.

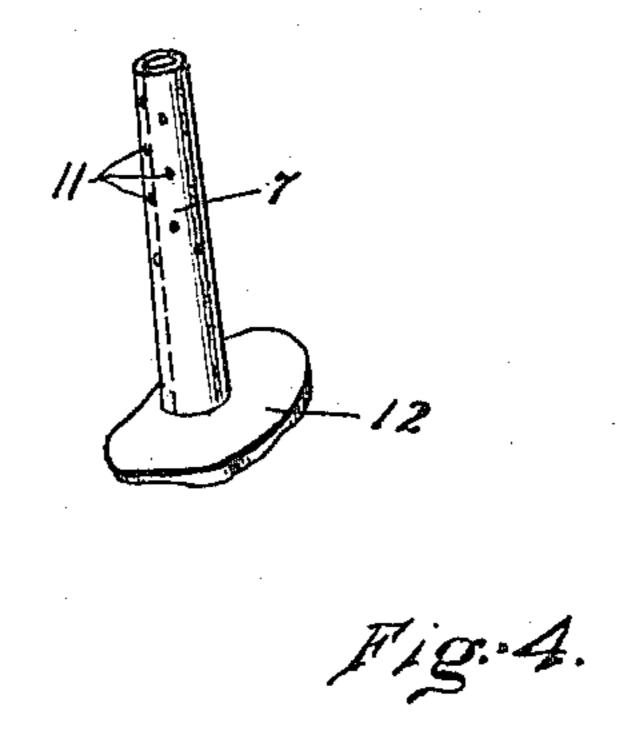
965,246.

Patented July 26, 1910.









Inventor

George E. Stallman,

Witnesses

I Streeman.

By

C. R. Parken

Ittorner

## UNITED STATES PATENT OFFICE.

GEORGE E. STALLMAN, OF FORT SAM HOUSTON, TEXAS.

TOOTH.

965,246.

Patented July 26, 1910. Specification of Letters Patent.

Application filed December 3, 1909. Serial No. 531,169.

To all whom it may concern:

Be it known that I, George E. Stallman, a citizen of the United States, residing at Fort Sam Houston, in the county of Bexar 5 and State of Texas, have invented certain new and useful Improvements in Teeth, of which the following is a specification.

My invention relates to new and useful improvements in means for attaching ar-10 tificial pin crowns to the roots of teeth.

My invention comprises essentially metal casing, which may preferably be made of copper and which accurately fits the pin of a crown. It is to be understood 15 that the pin attached to the crown may be round, square or any desired shape in crosssection, and the metal casing will be formed round or square to accurately fit the pin. The metal casing may be rigidly secured to 20 the pin of a crown or may be securely anchored in the root-canal, as will be hereinafter explained.

In the accompanying drawings, forming a part of this specification and in which like 25 numerals are used to designate like parts through the same, Figure 1 is a vertical sectional view of a pin-crown, provided with my improved casing. Fig. 2 is a central vertical sectional view of a root and crown, 30 showing the means for securing the crown to the root. Fig. 4 is a perspective view of the metal casing with a disk of gold, amalgam or porcelain attached to its lower end by a process known to those skilled in the 35 art of dentistry. Fig. 3 is a perspective view of the root showing the metal casing and disk cemented to the same, and showing the crown and pin removed.

In the drawings illustrating the preferred 40 embodiment of my invention, 5 designates a pin of an artificial crown, said pin being baked into the porcelain 6, as is well known in the manufacture of artificial pin-crowns.

7 designates an open ended substantially 45 cylindrical thin metal casing, surrounding the pin 5 and which is removable from and frictionally held upon the pin 5. The casing 7 is provided at its lower end with a plurality of openings 8, which are stamped in 50 the casing 7 when the same is slipped off of the pin 5. The openings 8 are preferably stamped from within outwardly and have outer flared or flanged edges, which engage material attached to the casing in the proc-

ess of its construction, and also serves the 55 purpose of providing means whereby said casing may be withdrawn from the canal cavity, by the insertion of a proper instru-

ment within one of the openings 8.

By particular reference to Fig. 2, it will 60 be seen that 9 designates the root of a tooth having the usual canal cavity 10. The metal casing 7 containing the pin 5 is arranged within the canal cavity 10, the casing 7 being provided with a plurality of openings 65 11 upon its periphery and near the upper end thereof, which openings coöperate with a suitable form of cement within the canal cavity, for holding the casing 7 within the root.

12 designates a gold disk commonly used in the art of dentistry, which is molded and attached to the lower end of the metal casing 7. The disk 12 is shaped to accurately fit the lower end of the root 9 and also the 75

abutting end of the porcelain 6.

Fig. 4 shows the metal casing 7 with the gold disk 12 securely attached thereto, with the openings 11 stamped at its upper end. These openings are easily stamped in the 80 casing before cementing said casing in the

canal cavity 10.

Fig. 3 shows the casing and disk separated from the pin 5. In Fig. 3, also is shown the metal casing 7 with the disk 12 85 attached thereto, said casing being cemented in the canal cavity 10, and the crown 6 with pin 5 drawn out of the casing 7. By this construction therefore, I am able to remove the crown from the root 9 by withdrawing 90 the frictionally engaged pin 5 out of the metal casing 7, after said casing has been anchored within the canal cavity 10. It is obvious by reference to Fig. 3, that the withdrawal of the pin 5 from the casing 7 95 will then form a canal leading to the end of the root, thus affording access to the same in cases where it is desired to treat the root. In case the withdrawal of the pin 5 is not desired, the attachment shown in Fig. 4 is 100 stamped with openings 11 and secured to the pin 5 by means of a suitable cement. The crown with the casing cemented thereto is then secured in the canal cavity 10 by means of a suitable cement, in which case the crown 105 and casing are rigidly secured to the root and cannot be removed therefrom. Also in the process of construction a piece of carbon is fitted in the metal casing in order to prevent any material from entering said casing.

Having fully described my invention, I

5 claim:

1. The combination with a tooth-root, of an open-ended casing anchored within the canal cavity of the same, a crown, and a pin connected to said crown for insertion within 10 said open-ended casing.

2. The combination with an open-ended casing anchored within the canal cavity of a tooth root, said casing being provided

near its lower end with a plurality of openings, of a cap mounted upon said casing 15 and adapted to conform to the shape of the end of said root, and a pin fixedly mounted upon a crown and adapted for insertion within said casing.

In testimony whereof I affix my signature 20

in presence of two witnesses.

GEORGE E. STALLMAN.

Witnesses:

GEO. H. MORGAN, W. T. COLEMAN.