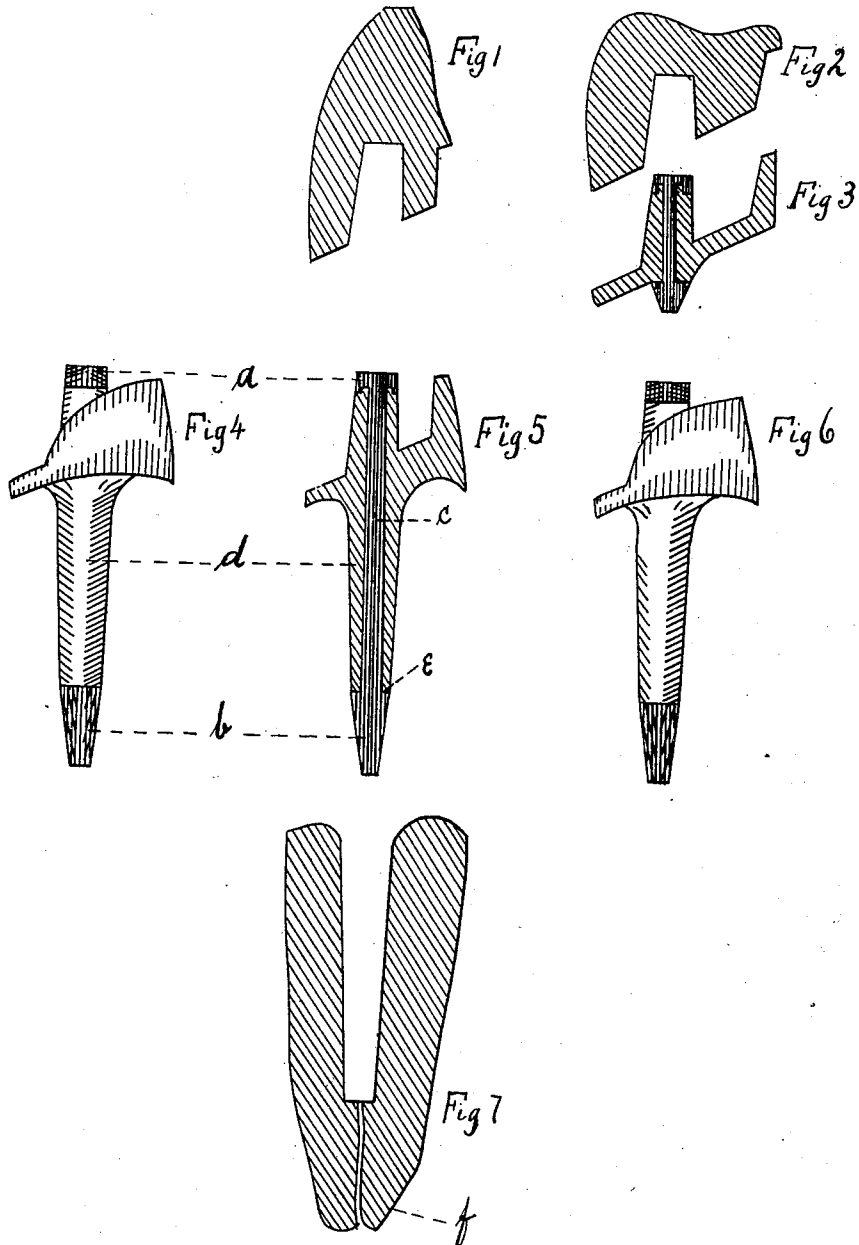


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 PROCESS OF MAKING DENTAL TOOTH POSTS.
 APPLICATION FILED DEC. 30, 1909.

977,558.

Patented Dec. 6, 1910.



Witnesses:
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PROCESS OF MAKING DENTAL TOOTH-POSTS.

977,558.

Specification of Letters Patent.

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Application filed December 30, 1909. Serial No. 535,604.

To all whom it may concern:

Be it known that I, HEINRICH SCHWEITZER, a subject of the German Emperor, residing at New York, in the county of New York and State of New York, have invented a Process of Making Dental Tooth-Posts Useful in Mounting Porcelain Crowns to Roots and to Bridges, of which the following is a specification.

Figures 1 and 2 are cross sectional views of porcelain crowns from the bottom of which the impressions are to be taken. Fig. 3 is the cross section of an impression pattern for mounting a crown upon a bridge. Fig. 4 is the lateral view of a completed pattern for mounting a crown to a tooth root, made up of the metal shank and wax impressions. Fig. 5 is the cross section of an impression pattern exposing the head of the metal skeleton, *a*, the shank, *c*, around which the wax, *d*, is placed; and the apical enlargement, *b*, of the skeleton on the other end of the shank. Fig. 6 is the lateral view of the complete and perfect cast tooth post ready for use. Fig. 7 is a cross sectional view of a tooth root with the reamed canal opening, the letter, *f*, indicating the apex of the root.

In the process of making a cast bottom or base backing for mounting of porcelain crowns to roots, ordinary pins were used as pivots for the fixation of the crown in the tooth root, to which pins only the crown bottom was cast. These pins do not fit snugly in the crown opening nor do they fit tightly in the enlarged root canal opening, and if ever they do fit in one or the other of these parts, they never fit tight at the same time in both when ready for cementing. It is desirable to have not only the root-surface on one side and the crown bottom on the other side imprinted in a cast bottom attachment of a crown, but also to have included in the impression the crown-opening and the root canal opening.

In order to obtain a sharp impression of all the parts mentioned, I construct impression points consisting of a metal skeleton, around which the impression wax is placed. The metal skeleton in this tooth post impression pattern consists of a shank, *c*, with a head part, *a*, on one end and an enlargement, *b*, on the other end. This enlargement *b*, is practically called apical enlargement of the metal-skeleton. The shank, *c*, originating in the center of the enlargement *b*, is represented

by a wire piece around which the wax for taking the impression is placed.

The head part has a size corresponding in shape to the innermost part of the bottom opening of porcelain crowns. It prevents change of shape of the wax impression when the porcelain crown is removed. The enlargement, *b*, on the other end of the shank of the skeleton is supposed to enter the enlarged root canal and therefore is of a shape corresponding to the innermost part of the enlarged root canal opening. The surface *e* Fig. 5 forms the boundary for the impression wax toward the end of the root canal opening. It prevents change of shape of the wax impression, holding the wax in position upon the shank when crown and impression-pattern are removed from the root. It helps greatly to remove the wax from the canal opening.

The wax is readily shaped around the skeleton by the manufacturer and fits approximately to the parts, all that is to be done by the operating dentist is, to soften the wax tooth post in warm water and press it home in the root canal and upon the root surface, using the crown on top as impression tray.

If in taking apart the wax impression comes out with the crown and sticks to the porcelain crown, it can be easily removed by grasping the enlargement, *b*, which is left free of wax, and pulling the porcelain crown apart. If it sticks to the root after removal of the crown, by grasping the head part, *a*, at its side walls with a pair of pin pliers.

The shank is thin enough to allow the entrance of the cast metal all around, especially on account of the peculiar central position of the shank in the head part, *a*, and in the enlargement, *b*, so that it is centrally located in the invested mold, and after casting in the cast post.

Having now fully described my invention I claim:

The method of making a tooth post by surrounding a metal shank with its enlarged ends with wax, taking impressions with it of the openings in the crown, and in the natural root, and then using the same as a pattern in casting the complete tooth post.

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Witnesses:

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