

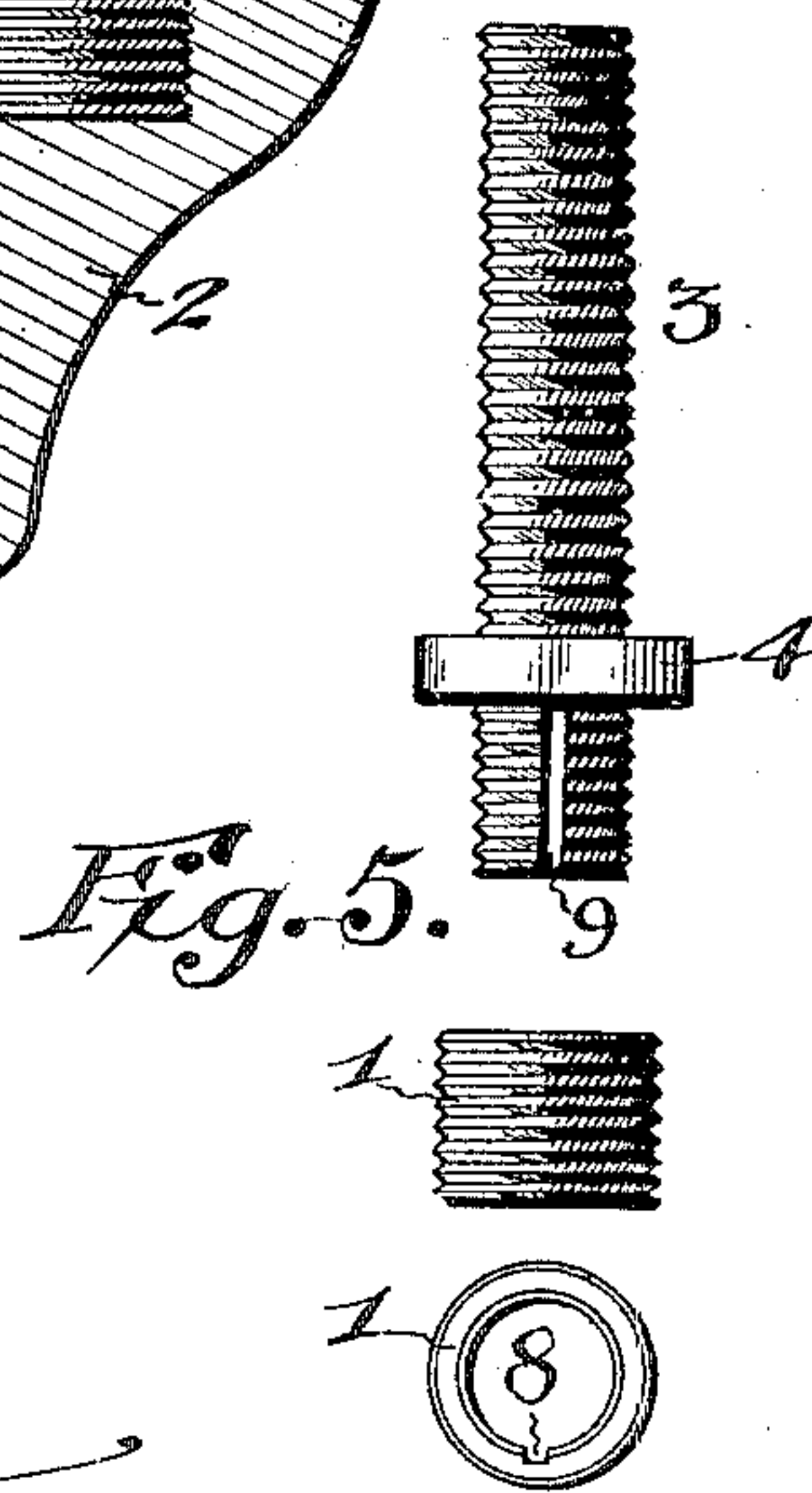
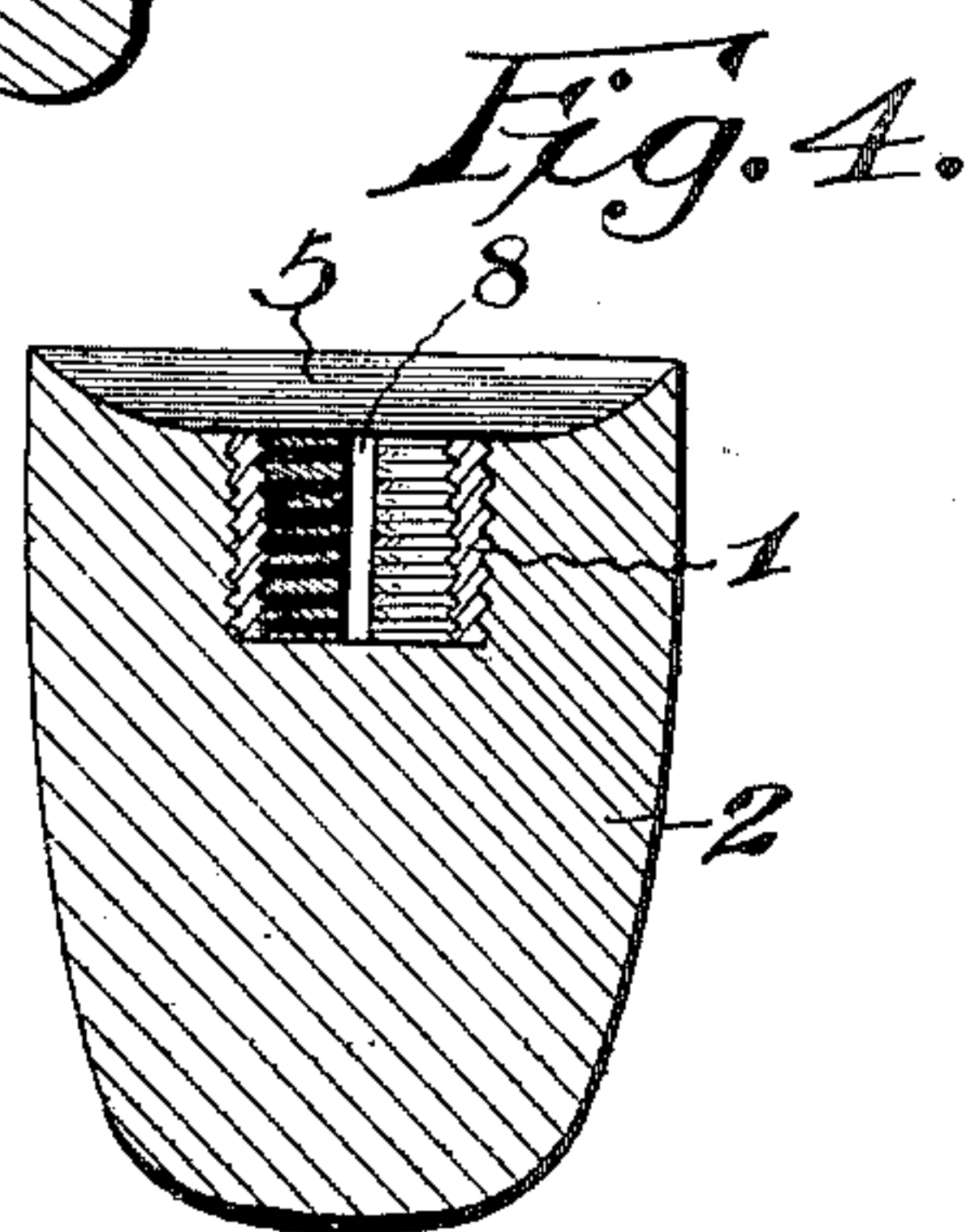
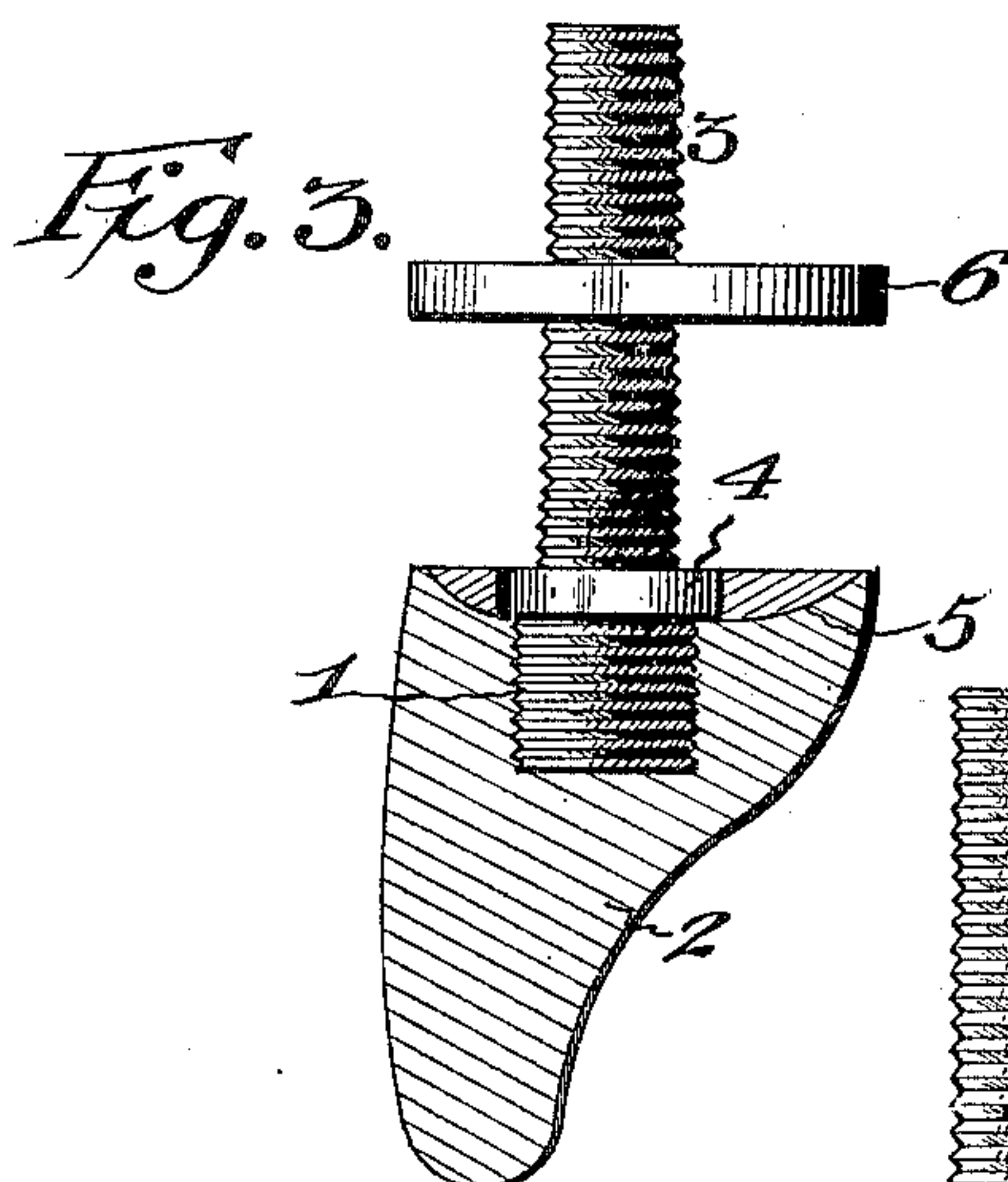
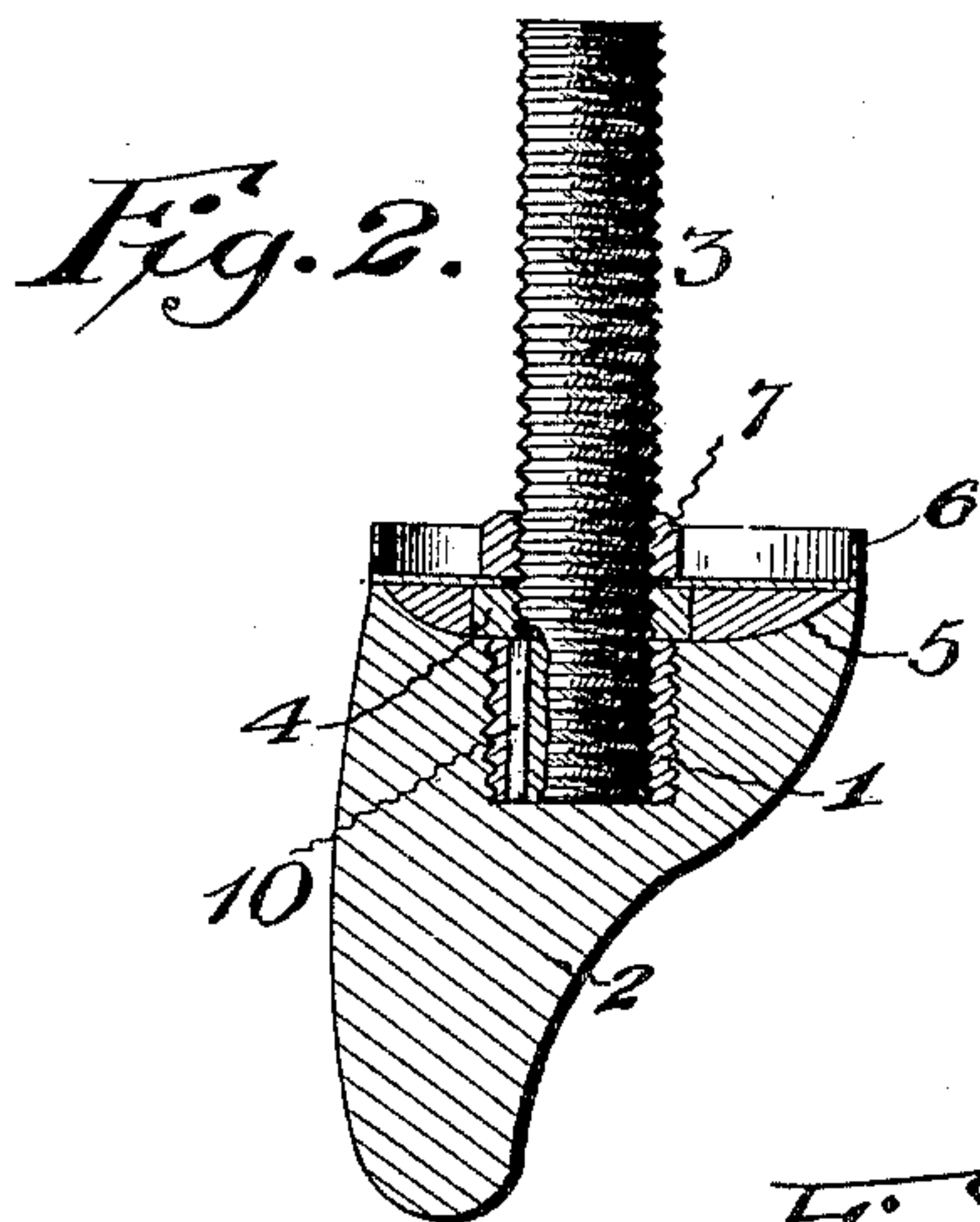
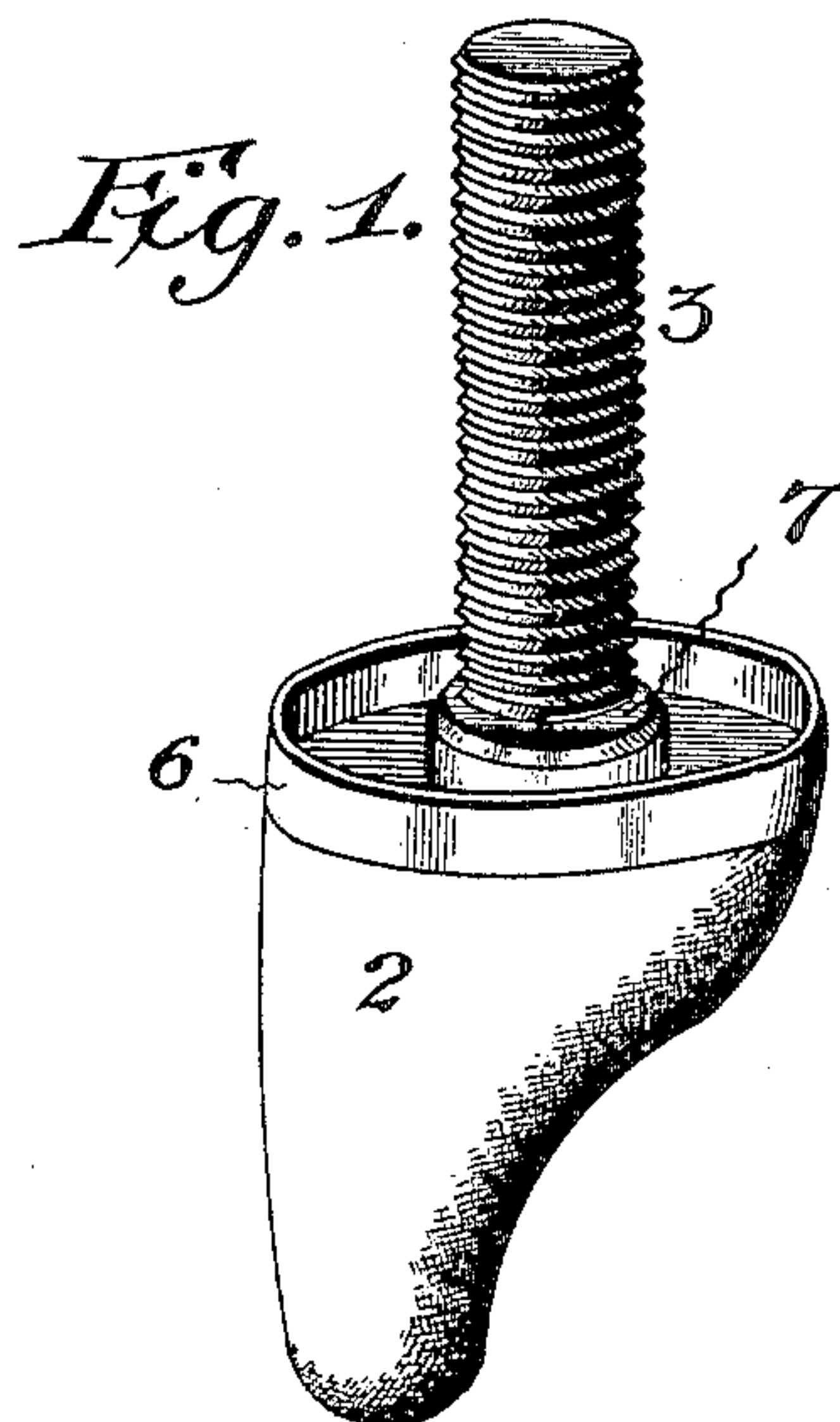
No. 622,670.

Patented Apr. 11, 1899.

W. H. DWIGHT
TOOTH CROWN.

(Application filed May 20, 1898.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIS H. DWIGHT, OF LE MARS, IOWA.

TOOTH-CROWN.

SPECIFICATION forming part of Letters Patent No. 622,670, dated April 11, 1899.

Application filed May 20, 1898. Serial No. 681,223. (No model.)

To all whom it may concern:

Be it known that I, WILLIS H. DWIGHT, a citizen of the United States, residing at Le Mars, in the county of Plymouth and State of Iowa, have invented a new and useful Tooth-Crown, of which the following is a specification.

This invention has relation to means for securing artificial crowns to natural roots, and is designed to provide a strong connection or attachment in which all joints will be perfectly tight, thereby protecting the cement from the action of the fluids of the mouth.

In carrying out the purpose and intent of the invention a metallic thimble or socket is embedded into the crown and is secured in place by the process of baking, whereby a fused joint is secured between the crown and thimble. The thimble has an inner and an outer screw-thread, the inner thread receiving a threaded dowel-post, upon which is mounted a pair of nuts or a nut and a washer. The cap is secured to the crown by screwing one of the nuts against the same, thus securing a close joint between the upper end of the crown and the cap.

For a full understanding of the merits and advantages of the invention, reference is to be had to the accompanying drawings and the following description.

The improvement is susceptible of various changes in the form, proportion, and the minor details of construction without departing from the principle or sacrificing any of the advantages thereof, and to a full disclosure of the invention an adaptation thereof is shown in the accompanying drawings, in which—

Figure 1 is a perspective view of an artificial tooth-crown as it will appear when ready to be fitted to the natural root. Fig. 2 is a vertical section thereof. Fig. 3 is a view similar to Fig. 2, the upper nut being removed and showing the cap slipped outward upon the dowel-post. Fig. 4 is a transverse section of the crown, showing the thimble or socket in place. Fig. 5 is a detail view of the means for connecting the dowel-post and cap to the crown.

Corresponding and like parts are referred to in the following description and indicated in the several views of the drawings by the same reference characters.

The thimble or socket 1 is secured within the upper portion of the crown 2 in any manner found most convenient and advantageous, according to the material from which the crown is constructed. Inasmuch as porcelain is generally used in the formation of artificial crowns, the metallic thimble or socket 1 is embedded in the material comprising the crown and is secured in place during the process of baking the crown, said operation resulting in a fused joint being secured between the thimble and crown. The thimble is threaded or roughened exteriorly to prevent its accidental displacement, and the engaging projections constitute portions of a thread which enable the thimble to be easily placed in position. The thimble or socket is internally threaded to receive the dowel-post 3, which makes screw-thread connection therewith.

To prevent turning or axial movement of the dowel-post 3 in the thimble or socket 1 after having been screwed in place, the said thimble or socket is provided in its inner side with a longitudinally-disposed groove 8, which is designed to register with a corresponding groove 9, formed in the end of the dowel-post 3, fitting in the said thimble or socket, and said grooves when in register are adapted to receive therein a lock-key 10, which secures the desired result of preventing rotation or loosening of the dowel-post 3 when secured in place within the thimble or socket. The said dowel-post 3 is externally threaded to engage the interior threads of the thimble or socket 1, as well as to receive thereon the nut or washer 4 and the nut 7, and in connection with the nut or washer 4 it is to be noted that the same forms a shoulder on the dowel-post and which by reason of being preferably threaded on said post is adapted to be turned up against the outer end of the thimble or socket after the post has been screwed and locked in place in the manner described.

The upper end of the crown has a recess or depression 5 therein to receive the nut or shoulder 4, thereby enabling the cap 6 to be clamped against the crown by the act of screwing up the nut 7 and at the same time permitting the cap 6 to come in close contact with the cervical margin of the crown.

The cap 6 is apertured for the passage therethrough of the post 3 and its rim con-

forms to the outline of the root to be crowned. The nut 7 is threaded upon the post 3 and clamps the cap 6 between it and the shoulder or nut 4, thereby securing the cap against displacement. After the cap has been placed in position, as shown in Figs. 1 and 2, the crown is prepared to be cemented to the root in the ordinary manner.

The means illustrated and referred to herein result in securing a firm attachment of the cap and dowel-post to the crown and permit a more perfect adaptation of the crown to the root than is possible by the use of the artificial-crown fastenings commonly in use.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. In an artificial tooth-crown, the combination of an internally-threaded thimble secured within the crown, a dowel having screw-thread connection with the thimble and having a shoulder to engage therewith, a cap slipped upon the dowel, and a nut screwed upon the dowel and against the cap to clamp the latter between it and the shoulder of the dowel, substantially as set forth.

2. In an artificial tooth-crown, the combination of an internally-threaded thimble secured within the crown, a dowel-post having screw-thread connection with the thimble, a nut mounted upon the dowel-post and in contact with the outer end of the thimble and constituting a shoulder, a cap slipped upon the dowel-post, and a nut mounted upon the dowel-post and clamping the cap between it and the first-mentioned nut or shoulder, substantially as set forth.

3. In an artificial tooth-crown, a thimble or socket embedded and baked in the crown, a dowel-post secured at one end within said thimble or socket, a cap fitted over the dowel-post, and a clamping device carried by the post and engaging one side of the cap to clamp the latter against the crown, substantially as set forth.

4. In an artificial tooth-crown, a threaded dowel-post fitted at one end within the crown, the cap fitting over the dowel-post, and a nut engaging the threads of the dowel-post and working against the cap to clamp the latter against the crown, substantially as set forth.

5. In an artificial crown, an internally-threaded thimble or socket secured within the crown, a threaded dowel-post engaging the threads of the thimble or socket, and a locking device for preventing axial movement of the post within the thimble or socket, substantially as set forth.

6. In an artificial tooth-crown, an internally-threaded thimble or socket secured within the crown and provided in its inner side with a groove, a threaded dowel-post fitting in the thimble or socket and also provided with a groove registering with the corresponding groove of the thimble or socket, and a lock-key fitting in said registering grooves, substantially as set forth.

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

WILLIS H. DWIGHT.

Witnesses:

I. S. STRUBLE,
C. E. B. OLDHAM.