

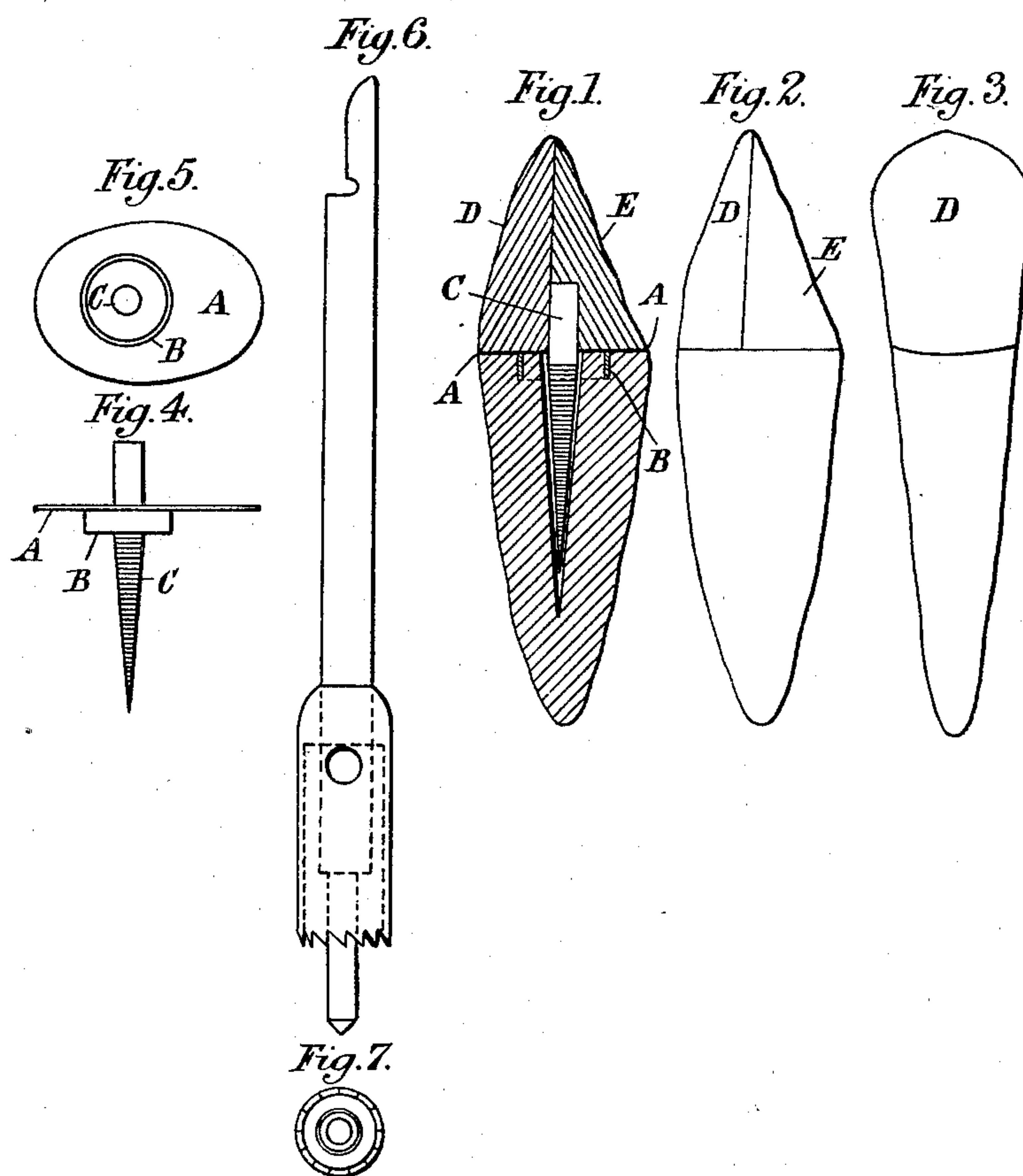
No. 679,714.

Patented July 30, 1901.

J. L. WILLIAMS.  
CAP FOR FIXING CROWNS TO TEETH.

(Application filed Jan. 8, 1901.)

(No Model.)



Witnesses

*Ed. Balloch*

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*James Leon Williams,*  
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*Alfred Davidson Wright.*

# UNITED STATES PATENT OFFICE.

JAMES LEON WILLIAMS, OF LONDON, ENGLAND, ASSIGNOR TO THE DENTAL MANUFACTURING COMPANY, LIMITED, OF SAME PLACE.

## CAP FOR FIXING CROWNS TO TEETH.

SPECIFICATION forming part of Letters Patent No. 679,714, dated July 30, 1901.

Application filed January 8, 1901. Serial No. 42,513. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES LEON WILLIAMS, dentist, a citizen of the United States of America, residing at 30 George street, Hanover Square, London, in the county of Middlesex, England, have invented a certain new and useful Cap for Fixing Crowns to Stumps of Teeth, of which the following is a specification.

10 For securing an artificial tooth or crown to the stump of a tooth I according to this invention construct in one metallic piece a cap consisting of a thin metallic plate having a metal ring of less diameter than the width of the plate soldered to one side of it and also  
15 having a metal pin passed through and soldered to it concentrically with the ring and so as to extend from both sides of the plate. To secure such a cap onto the stump of a  
20 tooth, an annular groove has to be cut in the top of the stump concentrically with the usual central hole formed in it. The cap can then be placed onto the stump, the ring entering and fitting the groove and the end of the pin  
25 which extends from the same side of the plate entering the central hole. The plate may now be rubbed down onto and made to conform to the contour of the top of the stump. When this has been done and an artificial  
30 tooth of the required size to be secured to the cap has been selected, the cap can be taken off the stump and the artificial tooth then secured to the plate and pin in any ordinary way. The cap carrying the artificial tooth is  
35 then ready to be cemented onto the stump. For enlarging the nerve-cavity or central hole in the tooth so that the pin of the cap may be passed into it a revolving tapering reamer may be used in the ordinary way.

40 The tool employed for drilling the annular hole consists of a crown-shaped drill having a central spindle which works in the central hole in the stump.

45 In Figures 1, 2, and 3 of the drawings annexed I have shown as an example an artificial front tooth with ordinary metallic backing secured in the above way to the stump of

a tooth. Fig. 1 is a vertical section, Fig. 2 a side elevation, and Fig. 3 a front elevation. Fig. 4 is a side elevation, and Fig. 5 a plan, 50 of the metallic cap. Fig. 6 is a side elevation, and Fig. 7 an end view, of the tool employed for cutting the annular groove in the top of the stump.

A is the thin metallic plate forming the base 55 of the cap, B is the ring soldered onto it on one side, and C is the pin passed through and soldered to the plate concentrically with the ring. Usually all these parts are of platinum.

D is an artificial tooth, and E its metallic 60 backing, formed, as usual, of metal which is comparatively fusible as compared with platinum. The artificial tooth can have a thin metal plate riveted onto its back, and the metallic backing E can be melted onto it and 65 onto the metal plate A and molded to form in the usual way of forming such backings, or, especially when the tooth is not a front tooth, the artificial tooth may be secured to the tooth without any metallic backing, the 70 pin C being then simply secured into a hole formed to receive it in the base of the artificial tooth.

What I claim is—

As a new article of manufacture, a cap 75 composed of a thin malleable metallic plate having a metallic ring of less width than the plate soldered securely to one side of it and adapted to enter an annular groove in the root of the tooth surrounding an opening 80 therein to receive the pin, and also having a metal pin passed through the plate and soldered securely thereto concentrically with the ring, so as to extend from both sides of the plate, whereby the plate carrying the 85 ring and pin may be first applied to the stump of a tooth and fitted thereon, then removed and secured to the tooth, and then secured to the root.

JAMES LEON WILLIAMS.

Witnesses:

R. B. RANSFORD,

JOHN H. WHITEHEAD.