

R. R. BRASWELL.
DENTAL CROWN FORMING TOOL.
APPLICATION FILED DEC. 14, 1909.

978,430.

Patented Dec. 13, 1910.

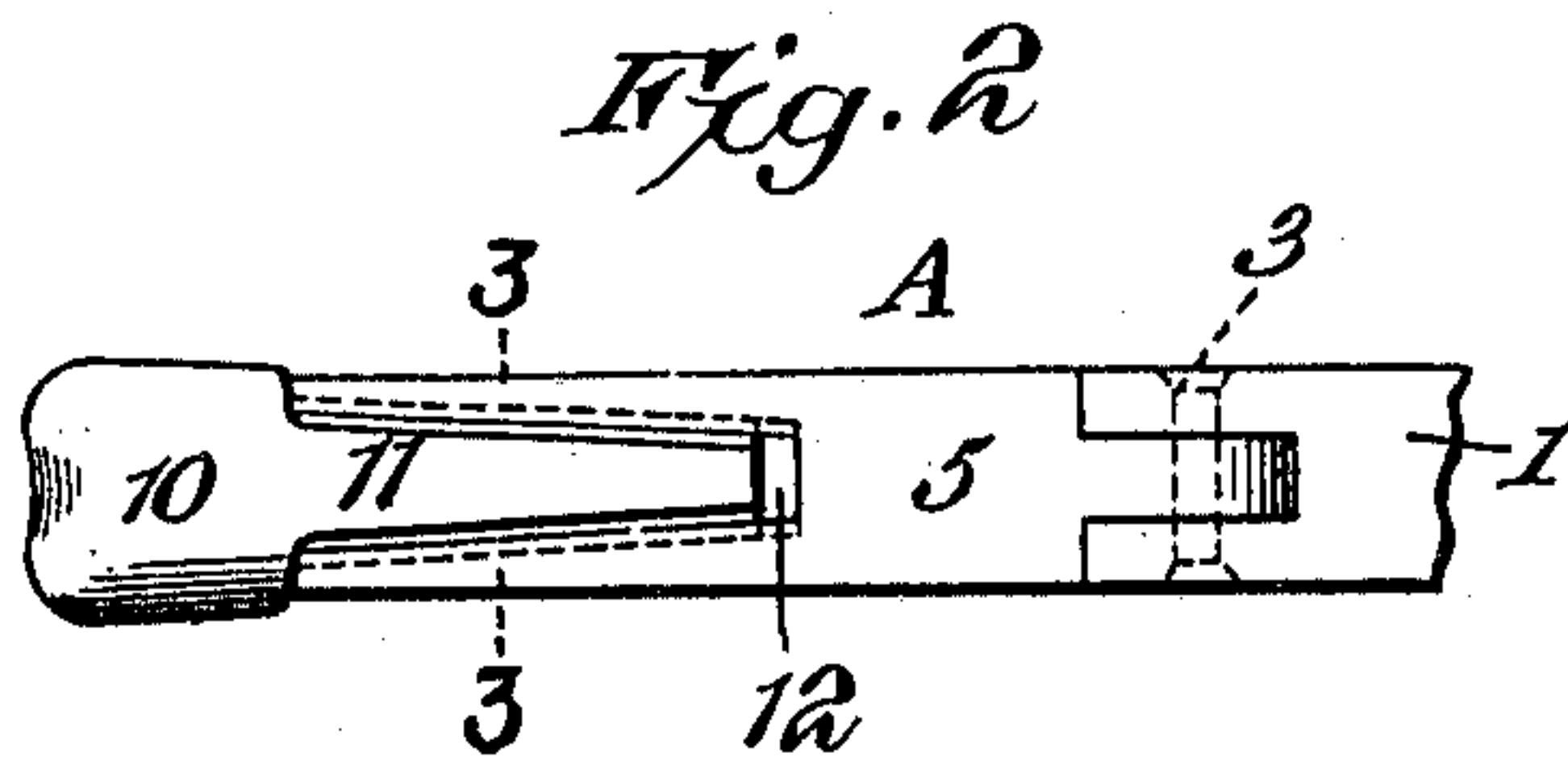
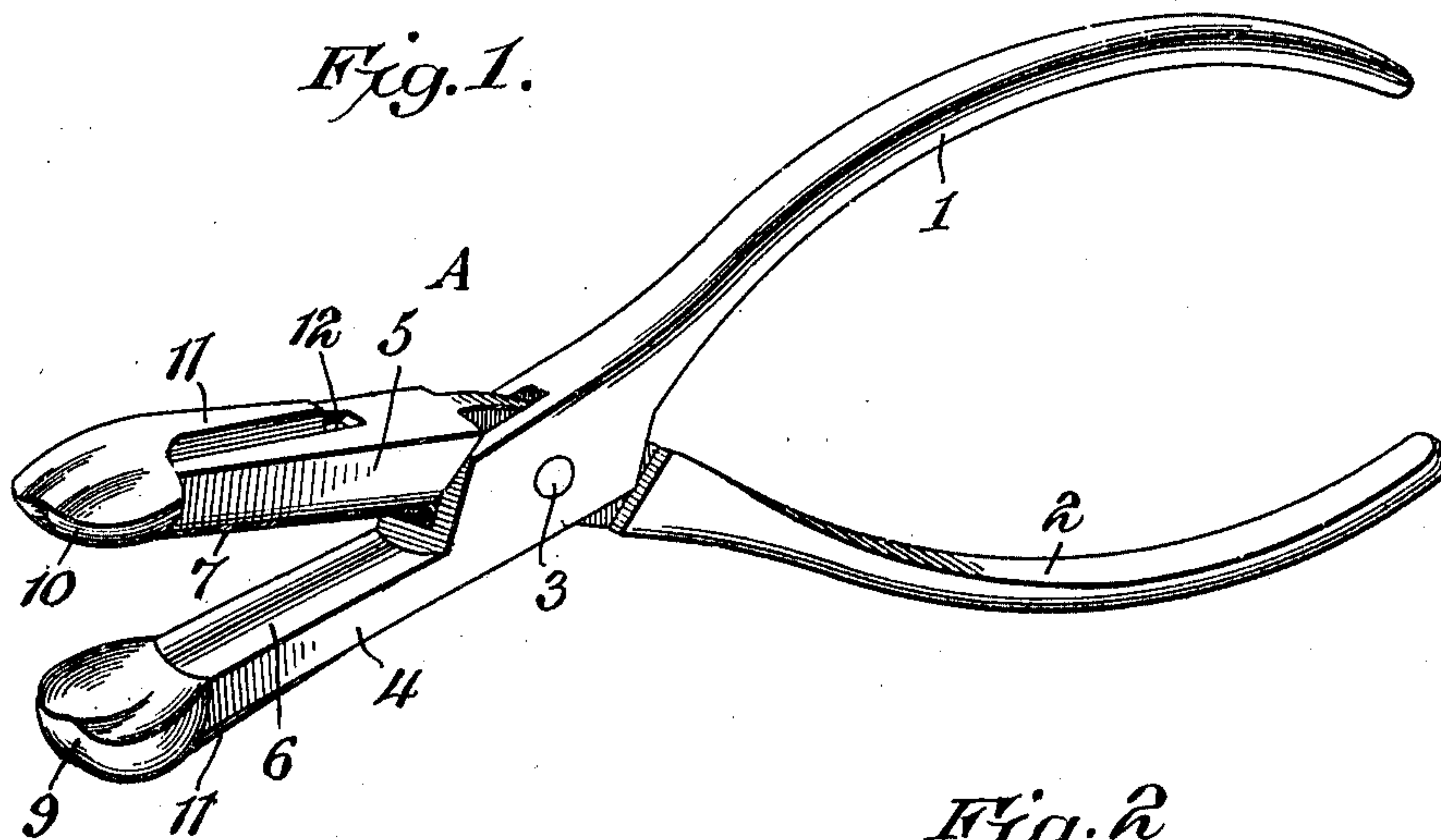
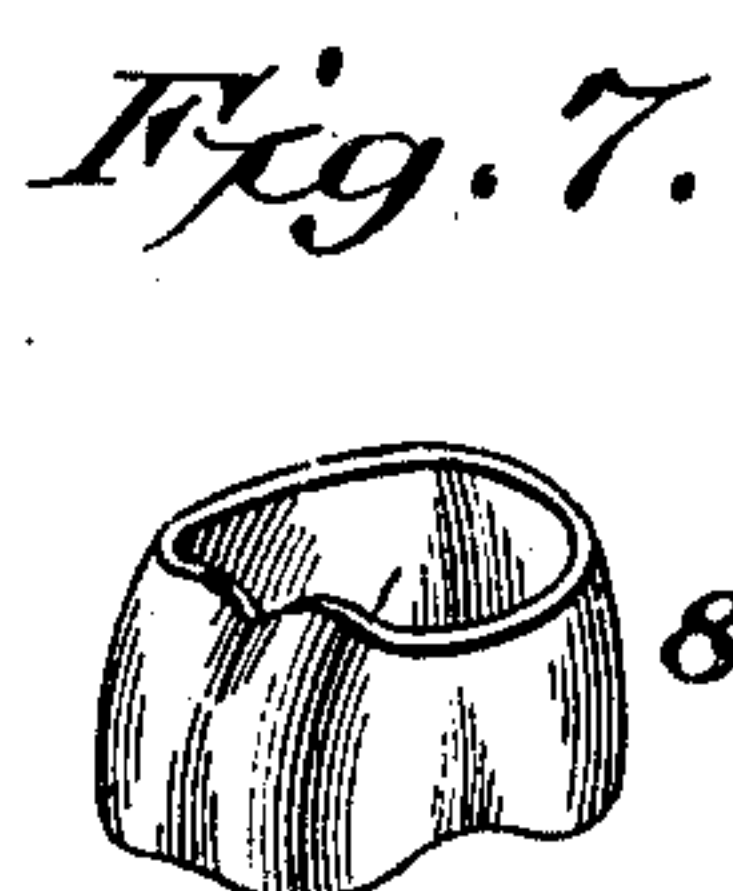
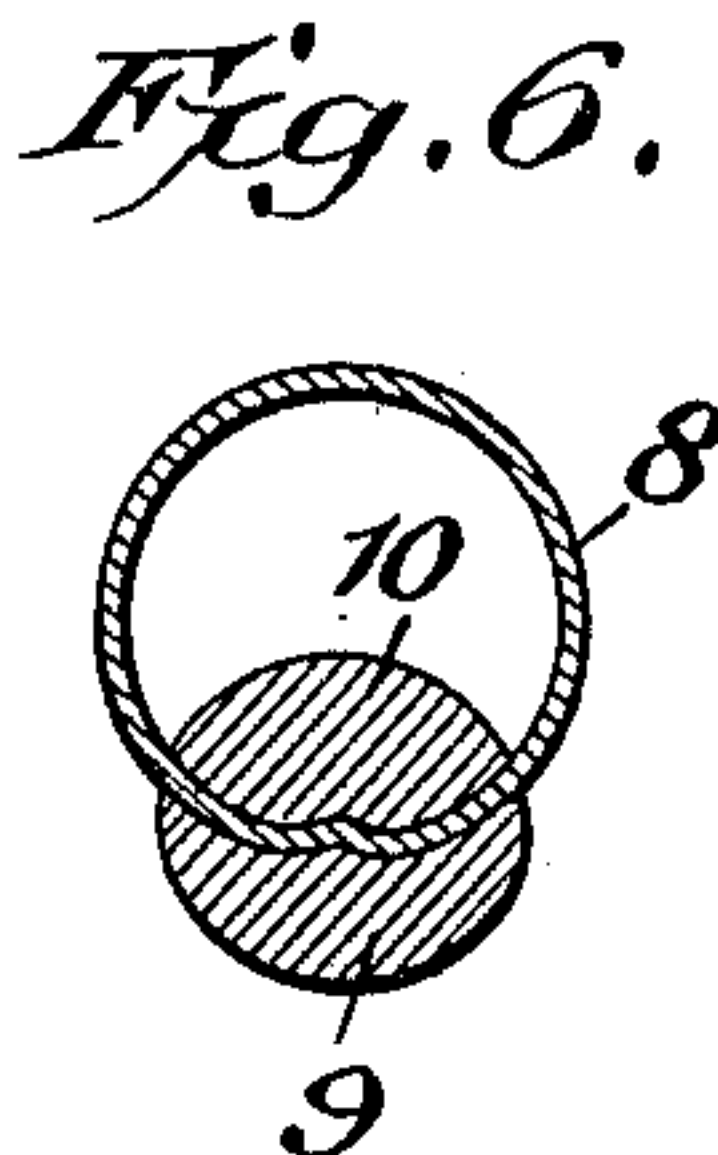
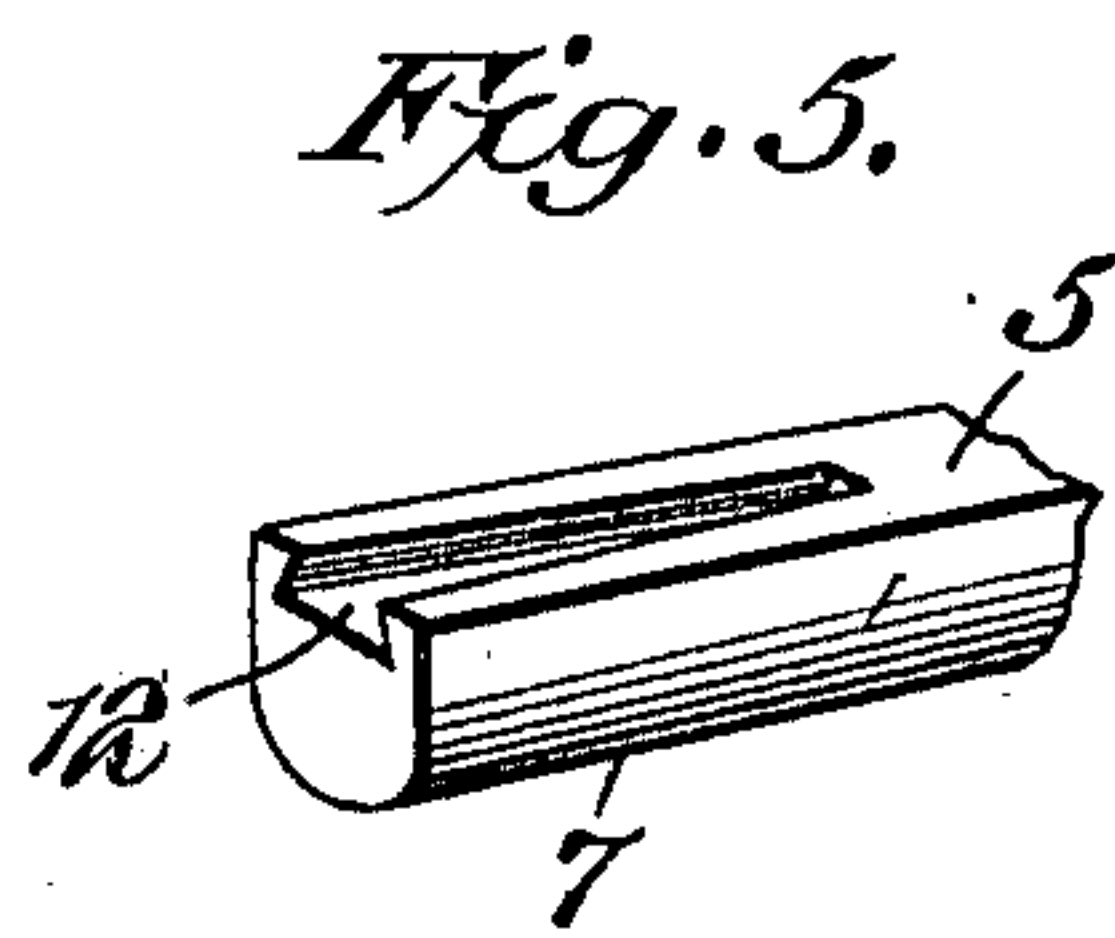
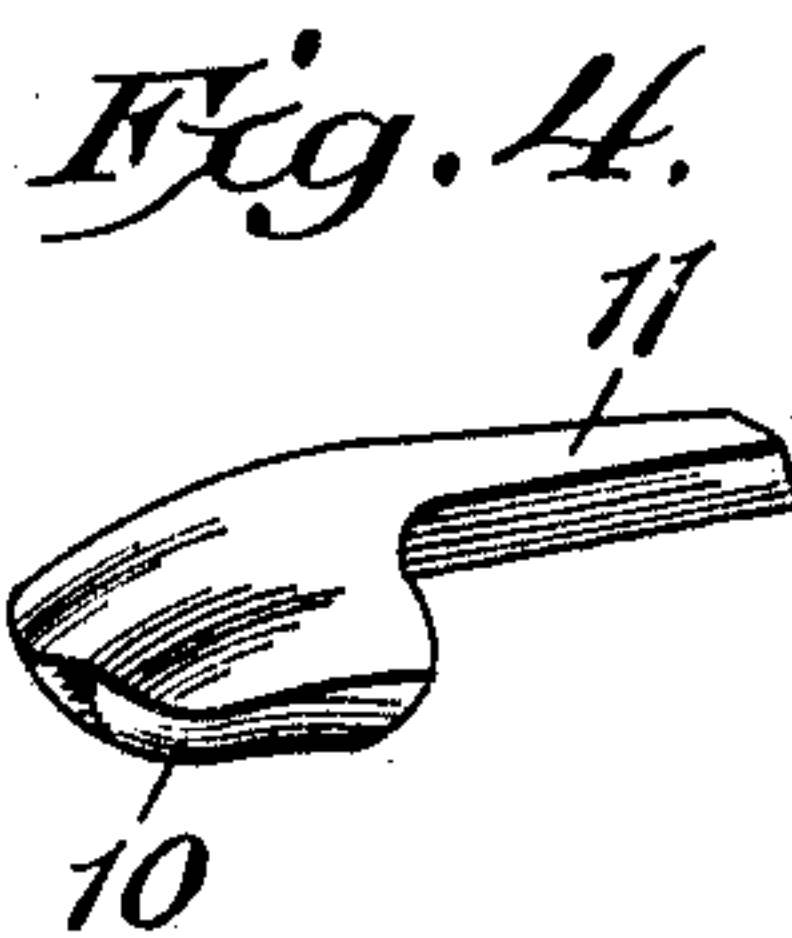
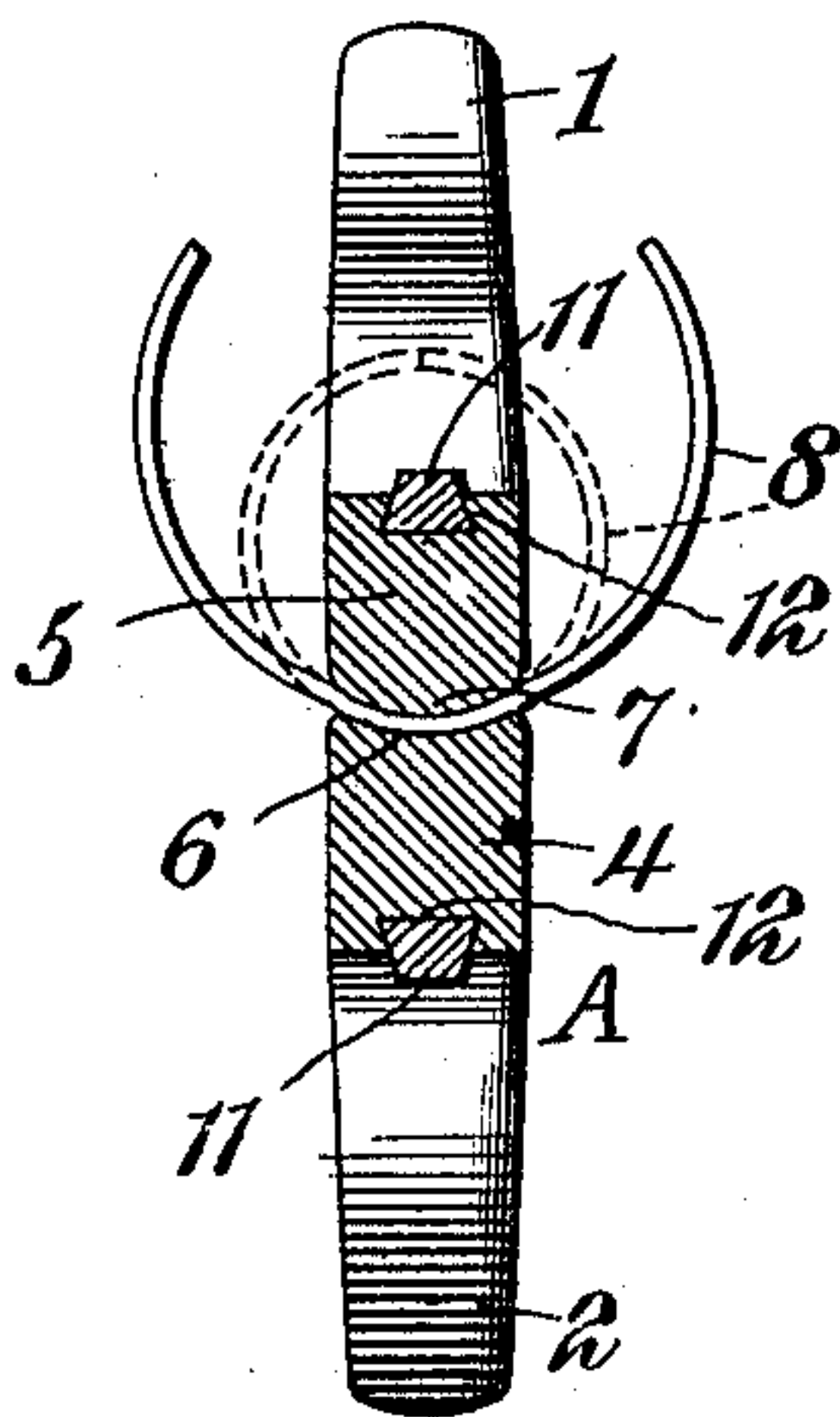


Fig. 3.



Witnesses

Howard D. Carr.
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R. R. Braswell, Inventor,

By

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Attorney.

UNITED STATES PATENT OFFICE.

RICHARD R. BRASWELL, OF SHREVEPORT, LOUISIANA, ASSIGNOR OF ONE-HALF TO
JULIA J. NELSON, OF SHREVEPORT, LOUISIANA.

DENTAL CROWN-FORMING TOOL.

978,430.

Specification of Letters Patent.

Patented Dec. 13, 1910.

Application filed December 14, 1909. Serial No. 533,003.

To all whom it may concern:

Be it known that I, RICHARD R. BRASWELL, a citizen of the United States, residing at Shreveport, in the parish of Caddo and State of Louisiana, have invented a new and useful Dental Crown-Forming Tool, of which the following is a specification.

This invention relates to dental tools in the form of pliers designed for making crowns, and the invention has for its principal object to provide a pair of pliers having jaws so designed as to shape the band for the crown, and adapted to receive removable forms whereby the final shape can be given to the crown.

With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

In the accompanying drawing, which illustrates one embodiment of the invention, Figure 1 is a perspective view of the crown-forming instrument. Fig. 2 is a fragmentary plan view thereof. Fig. 3 is a transverse section on line 3—3, Fig. 2, showing the process of forming the crown band. Fig. 4 is a perspective view of one of the forms removed. Fig. 5 is a perspective view of one of the plier jaws. Fig. 6 is a sectional view showing the forming of the crown. Fig. 7 is a perspective view of the crown.

Similar reference characters are employed to designate corresponding parts throughout the views.

Referring to the drawing, A designates the tool which is in the nature of pliers having handles 1 and 2 pivotally connected at 3 and formed with jaws 4 and 5. The opposed faces 6 and 7 of the jaws are, respectively, concave and convex in order to curve the metal strip 8 of which the crown is made, as shown in Fig. 3. The ends of the strip can be brought together as shown by the dotted lines and soldered together while held between the jaws. On the extremities of the jaws are forms 9 and 10 for shaping the crown to its final form, there being as many sets of forms as there are teeth. These forms may be made of steel or any other suitable metal and each

is provided with a stem shank 11 which tapers outwardly from the body of the form, and these stems fit in recesses 12 in the outer surfaces of the jaws. The recesses extend longitudinally of the jaws and are in the form of dovetail grooves, as clearly shown in Figs. 3 and 5, and the stems 11 are of dovetail cross section so as to interlock with the undercut opposed walls of the grooves. By this arrangement, the forms can be conveniently attached or detached without the use of fastenings, the forms being held in place by the wedging action of the stems in their respective grooves.

In producing a crown by the use of my improved tool, the appropriate forms for the desired crown are fitted to the plier jaws and a strip 8 of the required length is then clasped by the opposed engaging concave and convex jaws 6 and 7 of the pliers and is drawn between the same so that it will be given an approximately circular shape, as will be readily understood on reference to Fig. 3. The ends of the band thus shaped are soldered together, and the band is then engaged between the forms 9 and 10 and pressure applied to the said forms through the handles of the tool so that the form will be shaped, as indicated in Fig. 6. After one side of the band has thus been given the desired shape, the opposite side is treated in the same manner so that the crown will be easily and quickly made.

My invention avoids the necessity of keeping in stock a large number of crowns, inasmuch as the forms or dies by which the crowns are formed are removable and a single pair of pliers may be used with any number of different forms. Furthermore, the dies necessary to produce a crown corresponding exactly to the shape of the patient's tooth may be readily fitted to the pliers so that no delay will be experienced in forming the crown.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and

that such changes may be made when desired as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim as new, and desire to secure by Letters Patent, is:—

1. A dental tool comprising jaw members pivotally connected and having concave and convex band-forming faces respectively and also having longitudinally-extending grooves, and crown-shaping forms provided with stems fitting in the grooves and the working faces of the forms being flush with the said band-forming faces of the jaws.

2. A dental tool comprising jaw members having their opposed faces concave and convex respectively and formed with longitudinally extending dovetail grooves in their outer faces, crown-shaping forms at the ex-

tremities of the jaws, and attaching stems on the forms fitting in the grooves for detachably securing the forms in place.

3. A dental tool comprising hingedly-connected handles each having a jaw member, the outer faces of the jaw members having longitudinally-extending dovetail grooves tapering inwardly, crown-shaping forms disposed at the extremities of the jaw member, and wedge-shaped stems on the forms of dovetail cross section for wedging in the grooves of the jaw members.

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

RICHARD R. BRASWELL.

Witnesses:

A. B. NELSON,

R. A. SLATTERY.

It is hereby certified that in Letters Patent No. 978,430, granted December 13, 1910, upon the application of Richard R. Braswell, of Shreveport, Louisiana, for an improvement in "Dental Crown-Forming Tools," an error appears in the printed specification requiring correction as follows: Page 2, line 12, the word "steam" should read *stems*; and that the said Letters Patent should be read with this correction therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 17th day of January, A. D., 1911.

[SEAL.]

C. C. BILLINGS,

Acting Commissioner of Patents.