

No. 802,989.

PATENTED OCT. 31, 1905.

A. P. JOHNSTONE.
DENTAL INSTRUMENT.
APPLICATION FILED JULY 6, 1905.

Fig. 1.

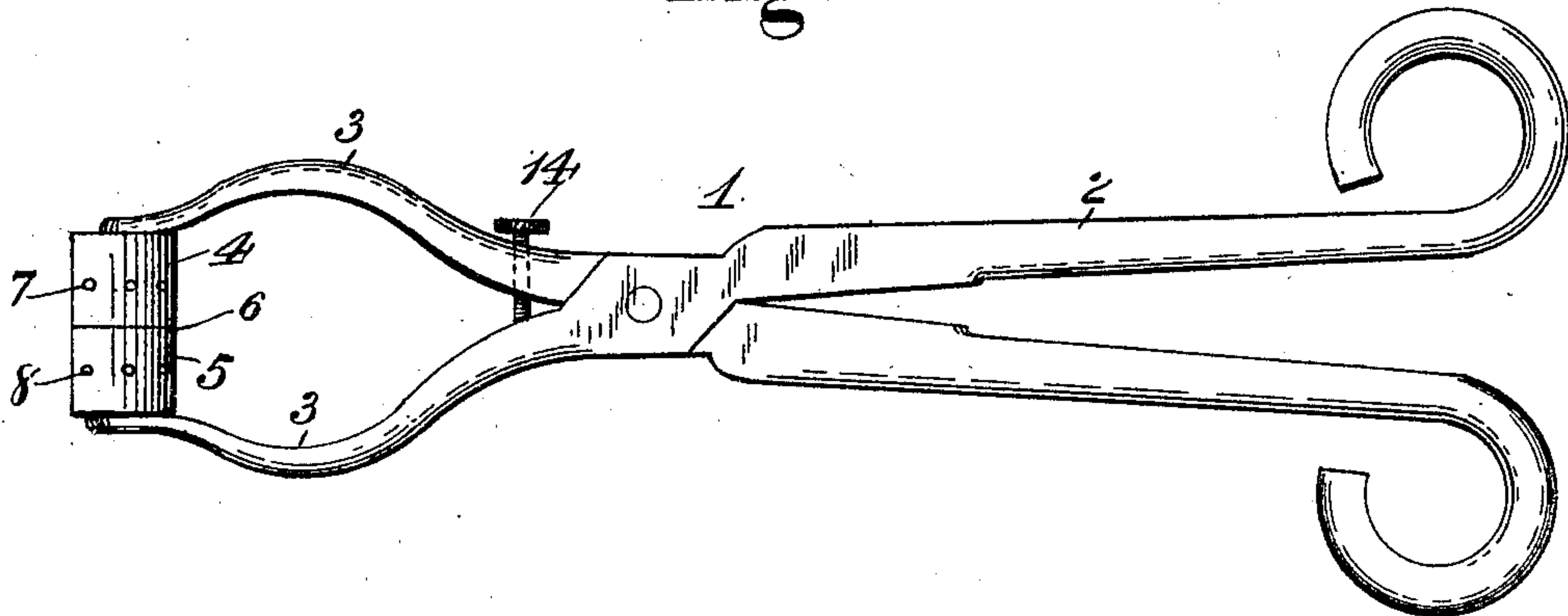
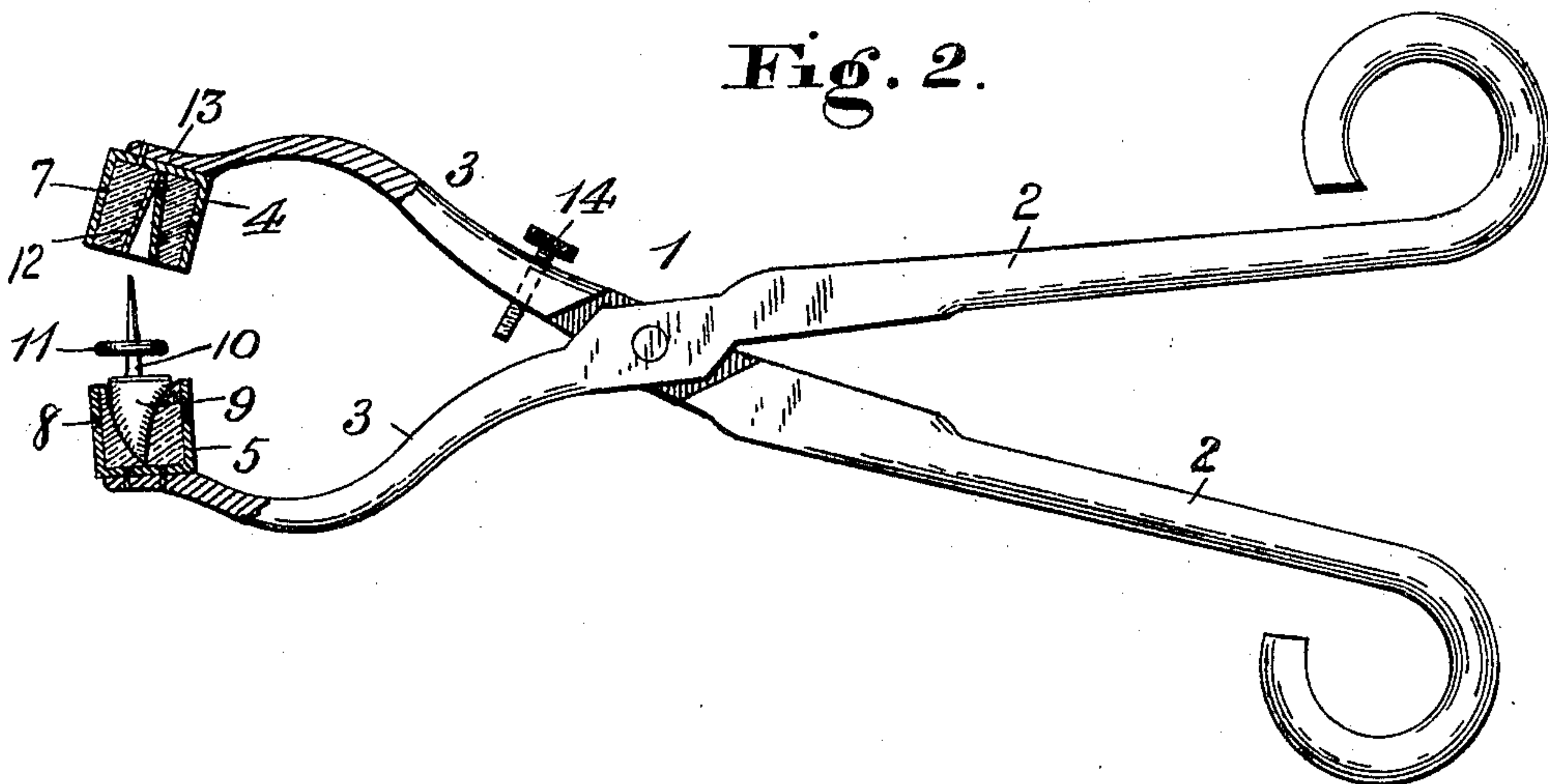


Fig. 2.



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DENTAL INSTRUMENT.

No. 802,989.

Specification of Letters Patent.

Patented Oct. 31, 1905.

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To all whom it may concern:

Be it known that I, ALBERT P. JOHNSTONE, a citizen of the United States, residing at Anderson, in the county of Anderson and State of South Carolina, have invented new and useful Improvements in Forceps, Dental Instruments, of which the following is a specification.

My invention is a dental instrument for fitting artificial crowns to the natural roots of teeth by a molding process.

In the accompanying drawings, Figure 1 is a side elevation of my invention, the front ends of the jaws closed. Fig. 2 is a side elevation, the front ends of the jaws and the cups being in section, said view showing a crown, the post, porcelain button, and guide in position.

The process of securing artificial crowns to the natural roots of teeth is attended with a great deal of trouble and particularity, requiring much time and patience. It is very difficult to get the top of the natural root ground to proper shape, and it is very difficult to get the base of the crown so ground as to make a perfect fit with the top of the root. To overcome these difficulties is the object of my invention.

My invention is described as follows:

In the accompanying sheet of drawings the numeral 1 represents a pair of forceps, 2 representing the handles, and 3 the jaws. These forceps may be made substantially as shown in the drawings or may be varied in form and ornamentation so long as they do not depart from the principle of the invention.

Secured to the inner faces and free ends of the jaws are cups 4 and 5. The bottom ends of these cups are secured to the jaws and are secured in such position that when the forceps are closed the open ends of said cups are brought together, forming a water-tight joint 6. Said cups 4 and 5 are provided with perforations 7 and 8, respectively. These perforations are for the purposes of allowing steam, water, or melted matter of any kind to ooze through them when said cups are pressed together.

In one of the cups 5 is secured a crown 9. This crown is secured in place by plaster-of-paris or other suitable matter. Extending

from the base of said crown is the crown-post 10, on which rests a porcelain button 11. Secured in the other cup 4 is a guide-tube 12 to guide the post of the crown. The said guide-tube 12 is cone-shaped, its small end being secured to the inner wall of the bottom of the cup 4; but this guide-tube may be made separate from the cup and secured therein by plaster-of-paris or other suitable material.

Passing through a threaded perforation in one of the jaws is a threaded set-screw 14, the lower end of said set-screw adapted to work against the other jaw. The said set-screw is for the purpose of determining the closure of the jaws of the forceps.

The operation of my invention is substantially as follows: The shape of the face of the root is taken and transferred to the cup 4, the guide-tube 12 being put in place. The porcelain button 11 is slipped on the post of the crown, and the forceps are partly closed. By heating the two cups until the button becomes quite plastic the process of molding is done by closing the jaws of the forceps. This process causes a perfect fit of the button not only to the shape of the root of the tooth, but also to the base of the crown.

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

1. The combination of a pair of forceps 1; a threaded set-screw 14, passing through a threaded opening in one jaw and impinging against the other jaw of said forceps; a cup 4, provided with perforations 7, its bottom secured to the inner face of one jaw, and a cup 5, provided with perforations 8, its bottom secured to the inner face of the other jaw of said forceps, said cups so arranged that their open ends may meet and form a water-tight joint 6, substantially as shown and described and for the purposes set forth.

2. The combination of a pair of forceps 1; a set-screw 14, passing through an opening in one jaw and adapted to impinge against the inner face of the other jaw of said forceps; a cup 4, provided with a series of perforations 7, around its center and having its bottom secured to the inner face of one jaw; a cup 5, provided with a series of perforations 8, around its center, its bottom secured to the

inner face of the other jaw of said forceps, said cups so arranged that their open ends may meet and form a water-tight joint 6, and a cone-shaped guide-tube situated in cup 4, its small end 13, secured to the inner face of the bottom of cup 4, substantially as shown and described and for the purposes set forth.

In testimony whereof I affix my signature in presence of two subscribing witnesses.

ALBERT P. JOHNSTONE.

Witnesses:

J. BOYCE BURRISS,
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