

No. 824,096.

PATENTED JUNE 26, 1906.

W. W. CRATE.  
DENTAL ARTICULATOR.  
APPLICATION FILED APR. 2, 1906.

2 SHEETS—SHEET 1.

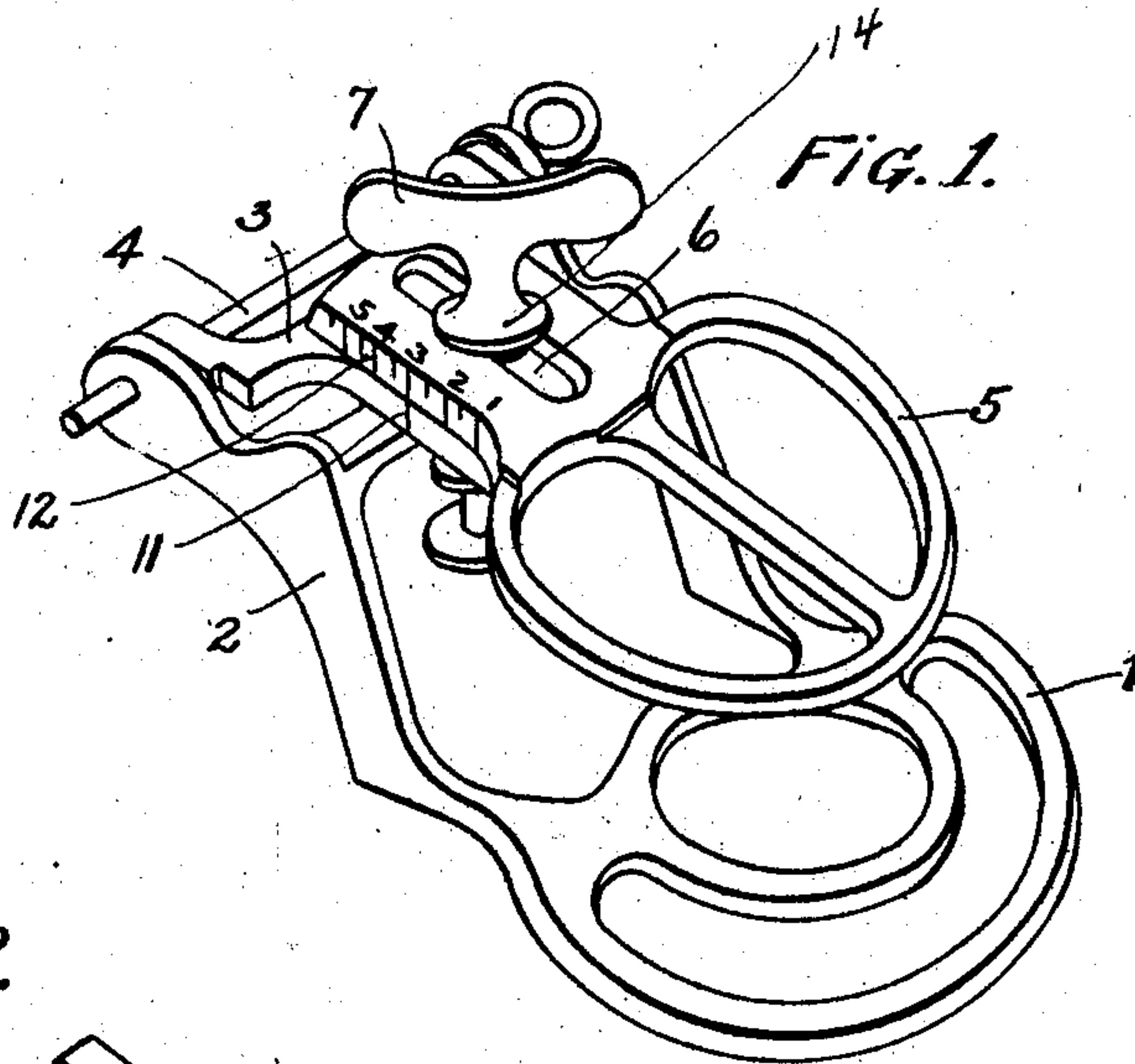


FIG. 2.

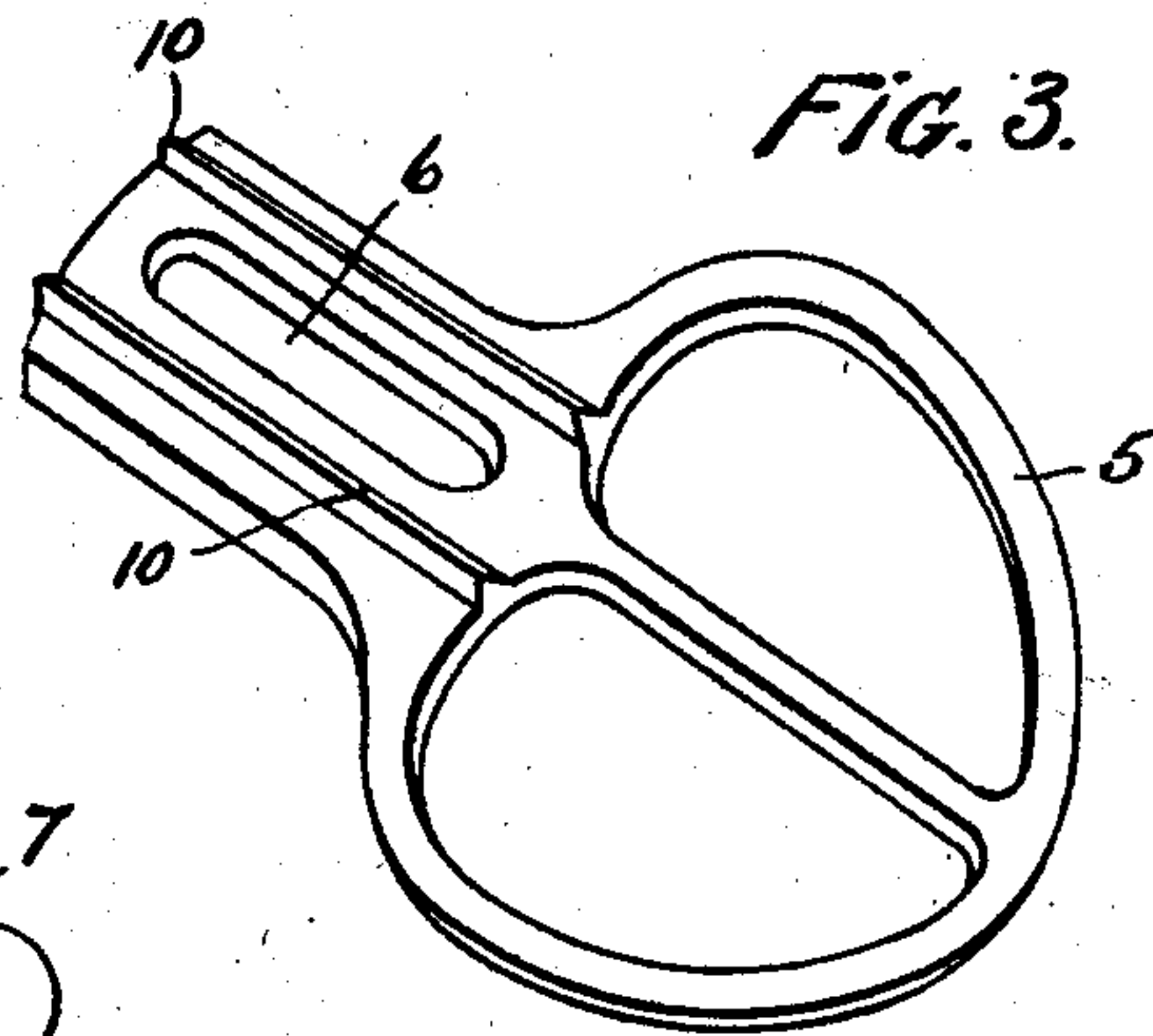
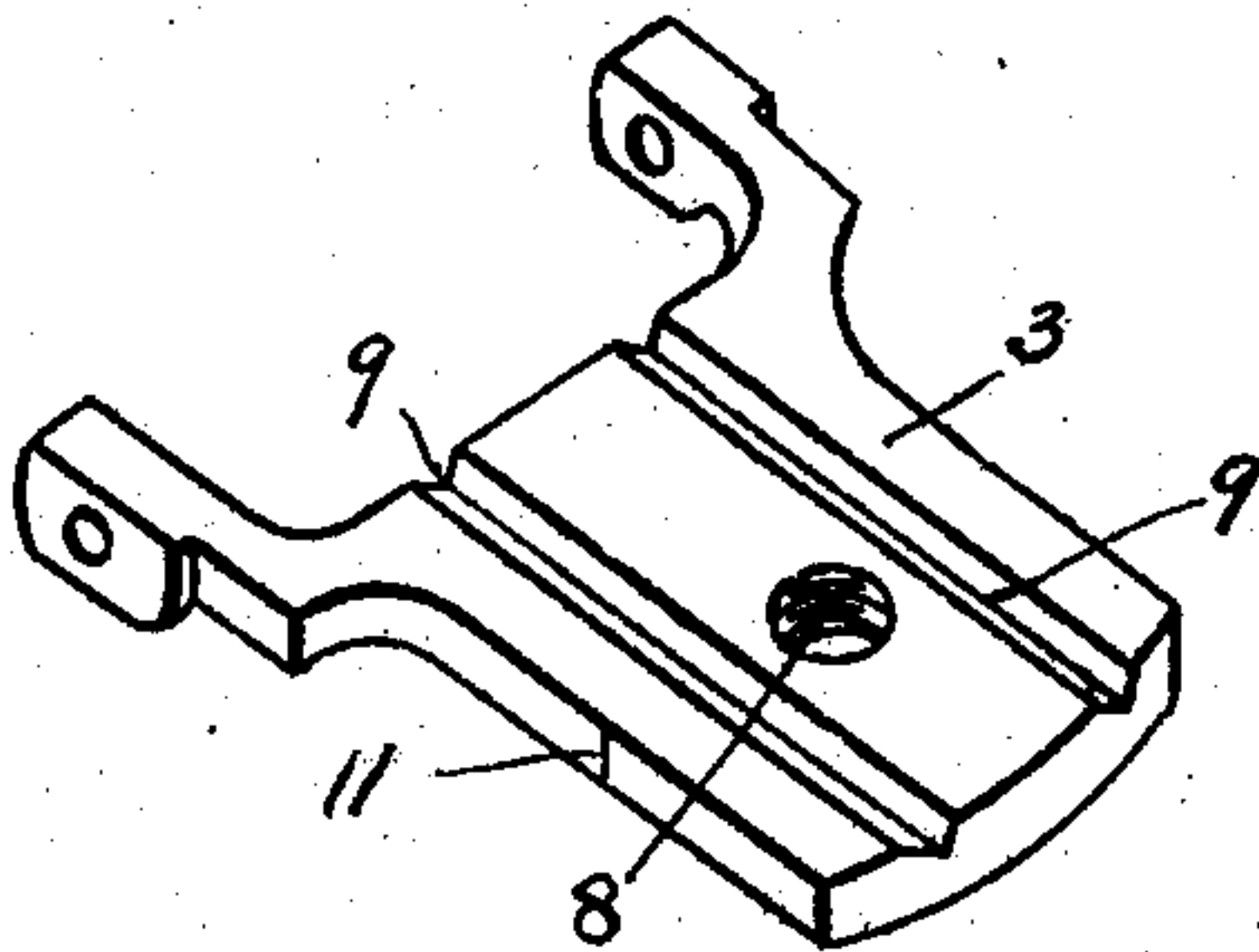


FIG. 3.

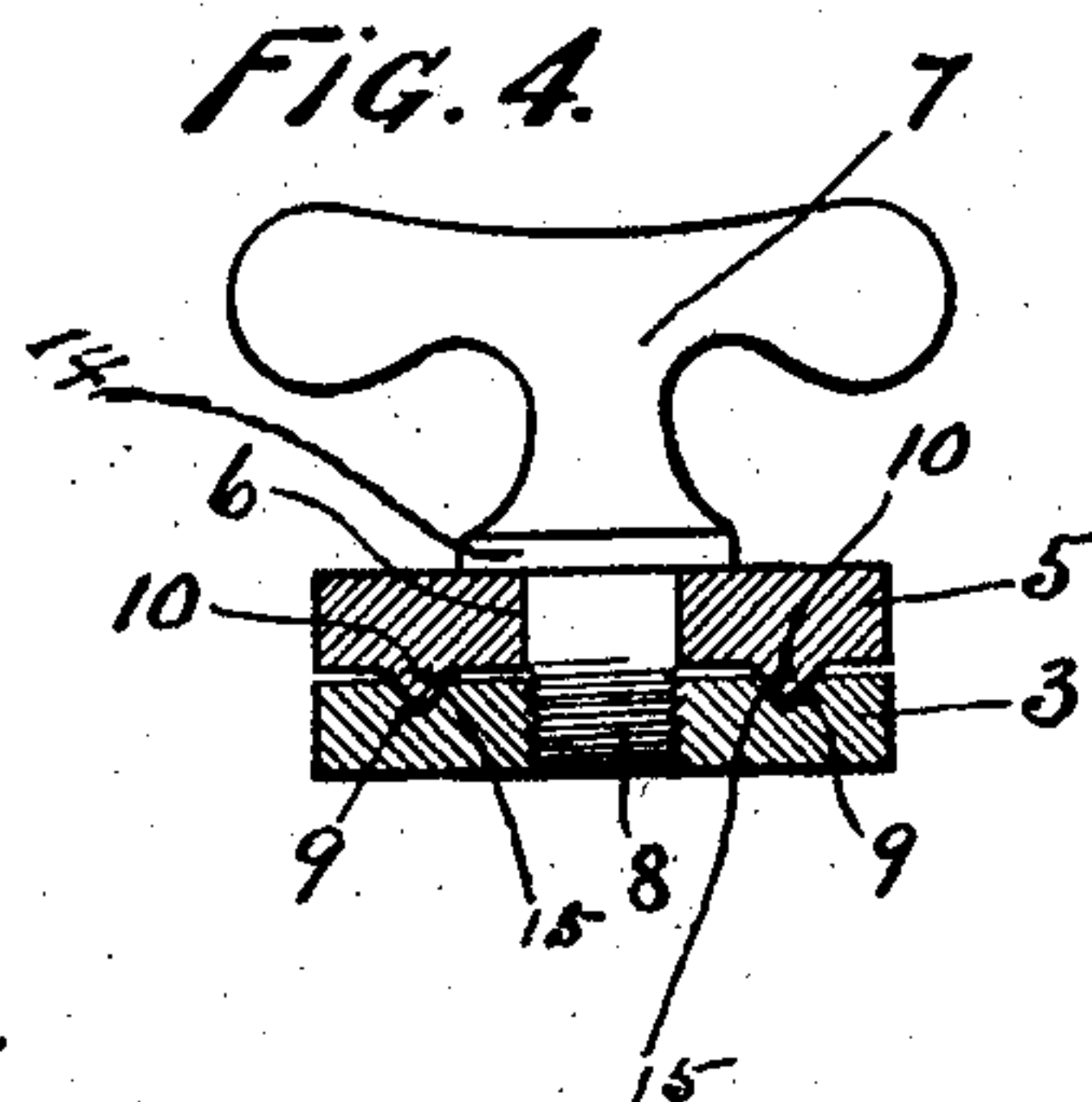


FIG. 4.

WITNESSES:

*E. J. W. W. W. W.*  
*J. H. W. W. W.*

INVENTOR

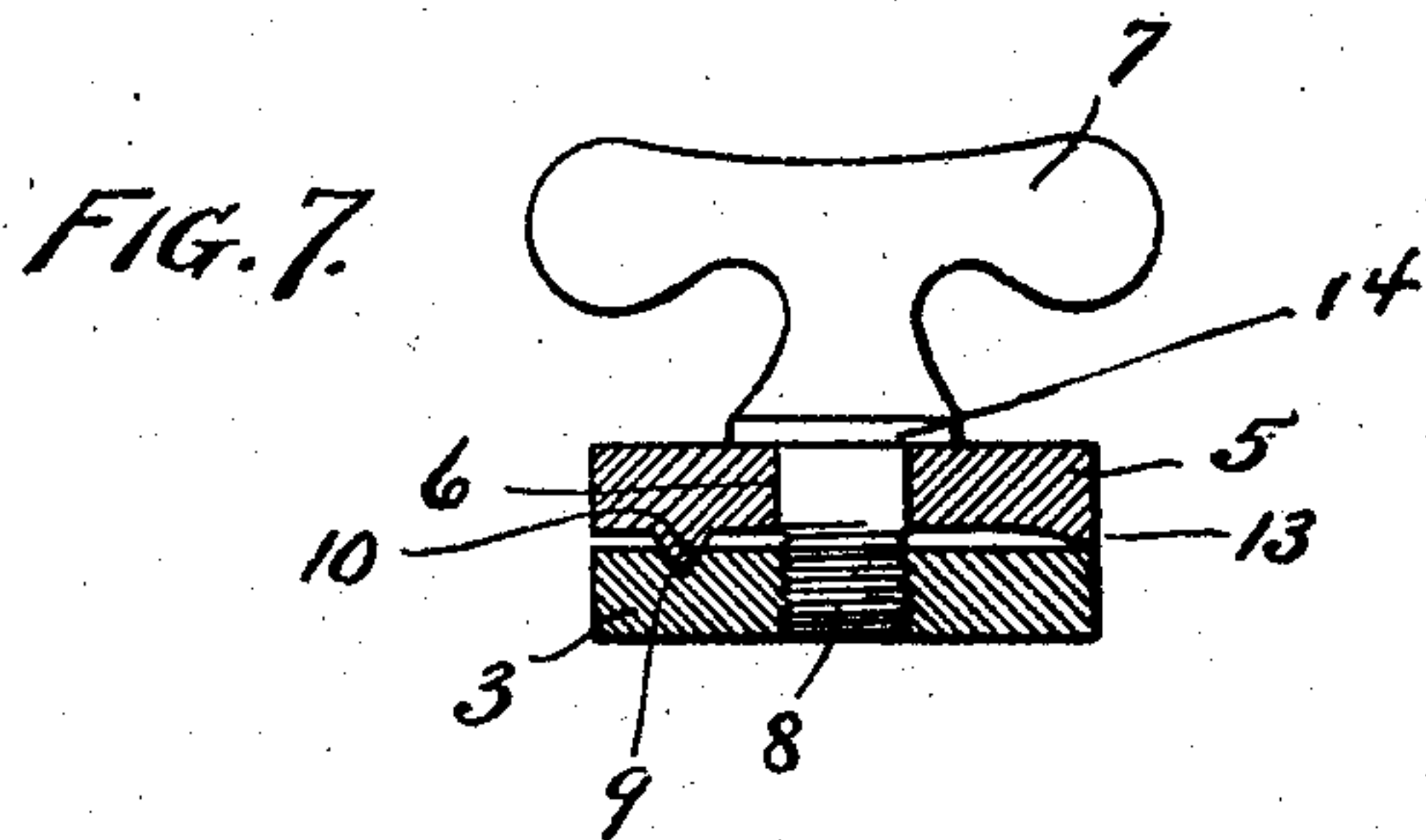
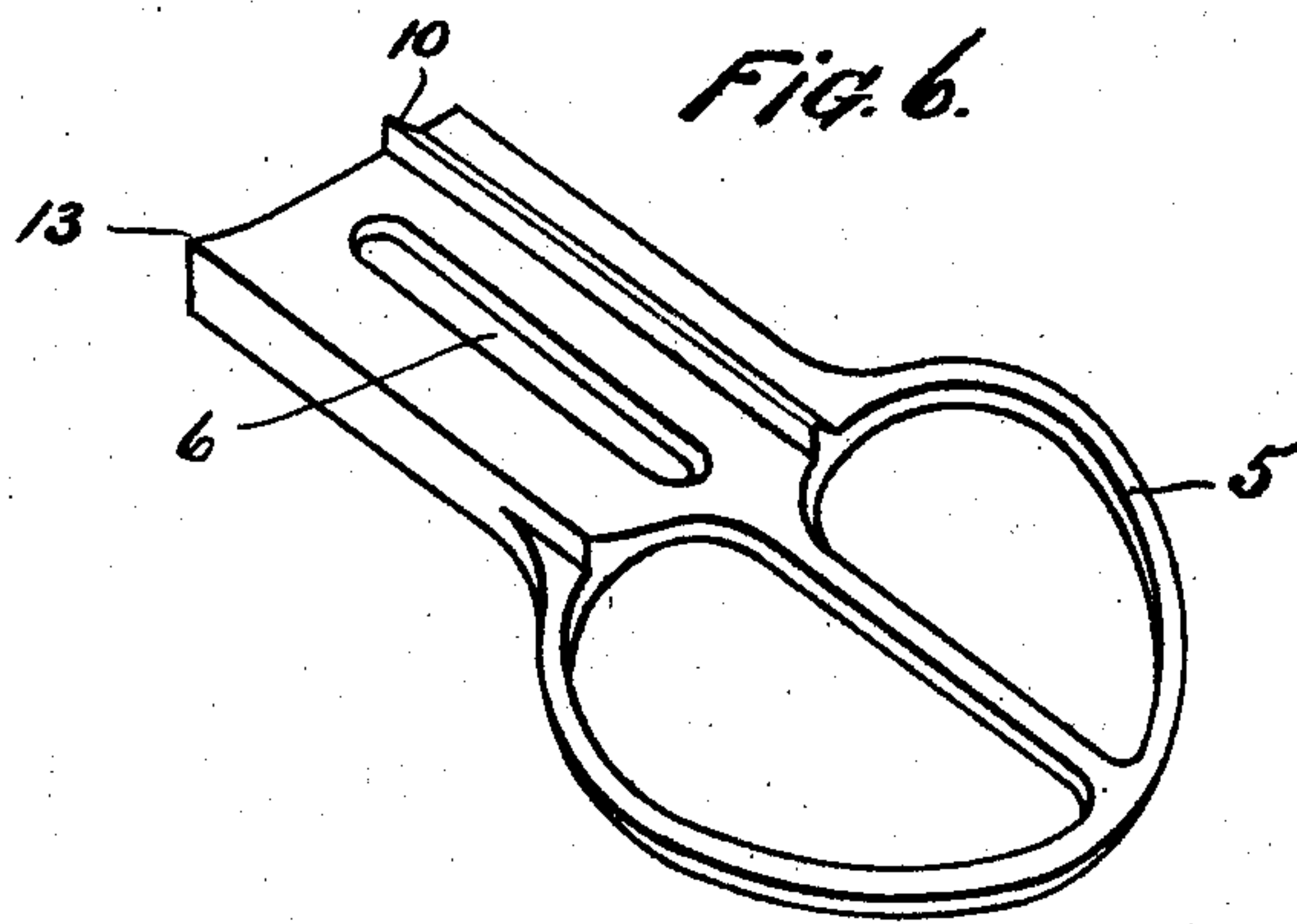
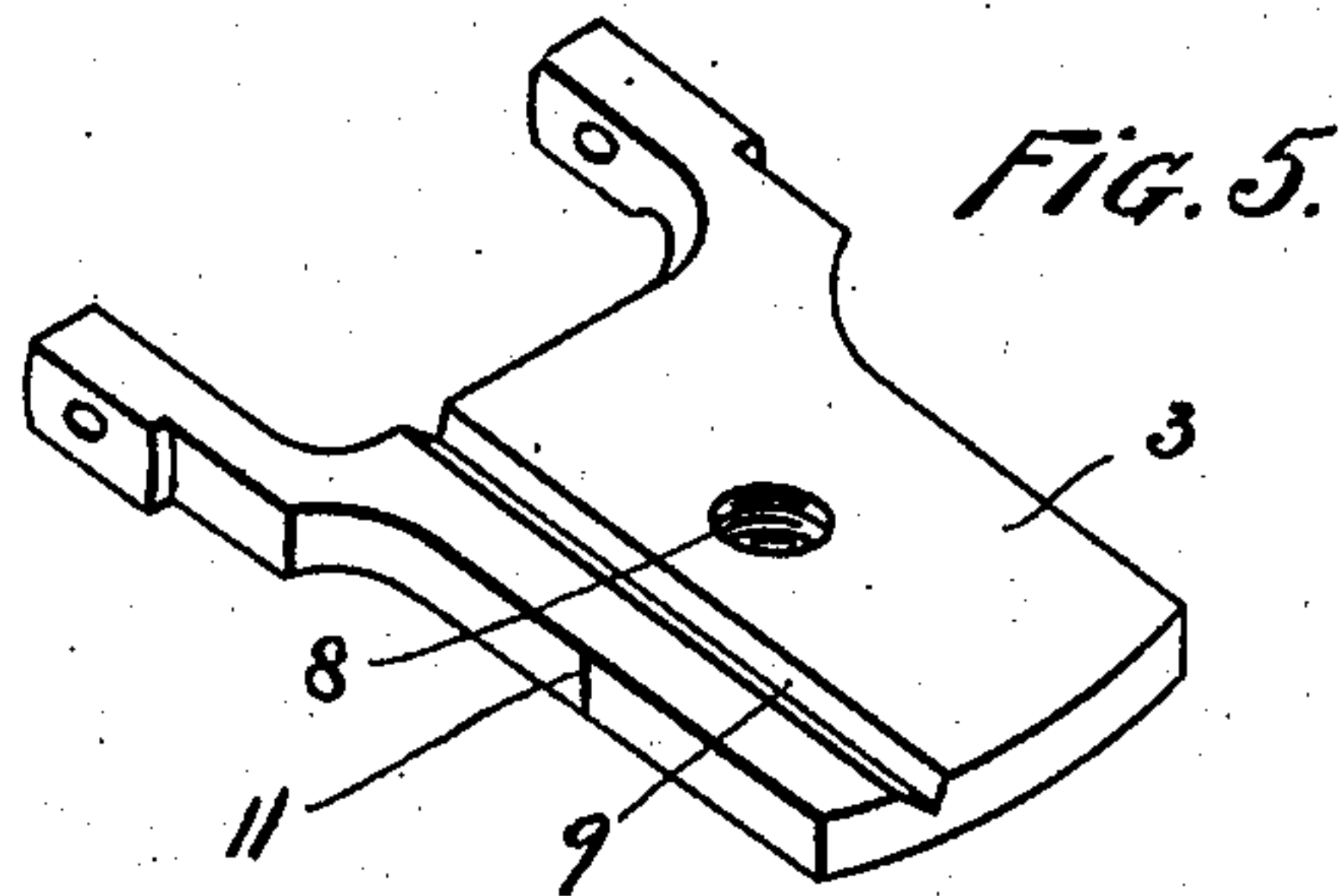
*Walter W. Crate.*

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2 SHEETS—SHEET 2.



WITNESSES:

*C. Jas. Updegraff*  
*Sam. H. Gelston*

INVENTOR

*Walter W. Crate.*



# UNITED STATES PATENT OFFICE.

WALTER W. CRATE, OF CAMDEN, NEW JERSEY.

## DENTAL ARTICULATOR.

No. 824,096.

Specification of Letters Patent.

Patented June 26, 1906.

Application filed April 2, 1906. Serial No. 309,509.

*To all whom it may concern:*

Be it known that I, WALTER W. CRATE, a citizen of the United States, residing at 705 Penn street, in the city and county of Camden and State of New Jersey, have invented a new and useful Improvement in Dental Articulators, of which the following is a specification.

My improvement relates to those articulators in which the upper jaw is made of two parts clamped together, said parts being hinged to the lower jaw by means of a pin; and the improvement consists in the construction and arrangement of a guide-ridge and groove connection between said parts, the object being, first, to afford facilities for more quickly and accurately governing the relative movement of the parts; second, to provide a guide for this purpose which will admit of use and consequent wear, but still retain its effectiveness.

In the accompanying drawings, Figure 1 is a perspective view of the complete articulator constructed in accordance with my improvement. Fig. 2 is a top plan view of the rear upper part. Fig. 3 is an underneath view of the top forward part. Fig. 4 is a sectional view of the top parts.

1 and 2, Fig. 1, form the lower portion of the complete articulator, hinged to Fig. 2 by means of the pin 4, Fig. 1.

1 and 5, Fig. 1, are frames to receive plaster used in making an artificial denture.

7, Fig. 1, is a thumb-screw binding Fig. 2 to Fig. 3.

8, Fig. 4, is the threaded portion of the thumb-screw, which fastens in the threaded hole 8, Fig. 2, the collar of the thumb-screw being 14, Fig. 4.

11, Fig. 2, is a vertical line, and 12, Fig. 1, represents a series of vertical lines which makes possible a gage of a distance Fig. 3 may be moved from Fig. 2 when the parts of the articulator are assembled.

10 and 10, Fig. 3, are guide-ridges constructed to wedge into the grooves 9 and 9, Fig. 2, contact-points being 10 and 10 and 15 and 15, Fig. 4, when Figs. 3 and 2 are

brought together by the thumb-screw, the bases of the guide-ridges being broader than the openings of the grooves. When the thumb-screw is adjusted to loosen Fig. 3 from Fig. 2, said figures may be operated only in a straight line forward or backward, the direction being governed by the guide-ridges and grooves. The heights of said guide-ridges from their apexes to the beginnings of their bases measure less than the depths of said grooves. Also the heights of the bases of the guide-ridges beyond the points of said beginnings is sufficient to prevent the flat approximal surfaces of Figs. 3 and 2 touching when assembled, as illustrated in Fig. 4, both of which mentioned provisions are made to enable the guide-ridges to wedge into the grooves at points higher up the bases after the contact-points 10 and 10 and 15 and 15, Fig. 4, have worn, the thumb-screw continuing to bind them together.

Figs. 5, 6, and 7 illustrate a modified form of my improvement. 13, Fig. 6, is a raised contact-point, contact to be with 3, Fig. 5. The contact of 13, Fig. 6, with 3, Fig. 5, will be simultaneous with the contact made by 10, Fig. 6, and 9, Fig. 5, the latter points being respectively the guide-ridge and groove, but one guide-ridge and groove appearing.

Without departing from the spirit of my invention the guide-ridge and groove may be placed in a transverse or circular direction instead of forward and backward between the two parts of the upper jaw.

I claim—

The combination, in a dental articulator, of the upper and lower jaws having hinged connection at their inner ends, said upper jaw consisting of two parts, with the guide-ridge and groove connection between said parts, which permits of their being moved relatively to each other only in the direction governed by the guide-ridge and groove; and means for clamping the two parts together.

WALTER W. CRATE.

Witnesses:

HENRY G. DICKENSHEET,  
ALBERT H. MARPLE.