

(No Model.)

R. H. ANTES.  
DENTAL ARTICULATOR.

No. 547,195.

Patented Oct. 1, 1895.

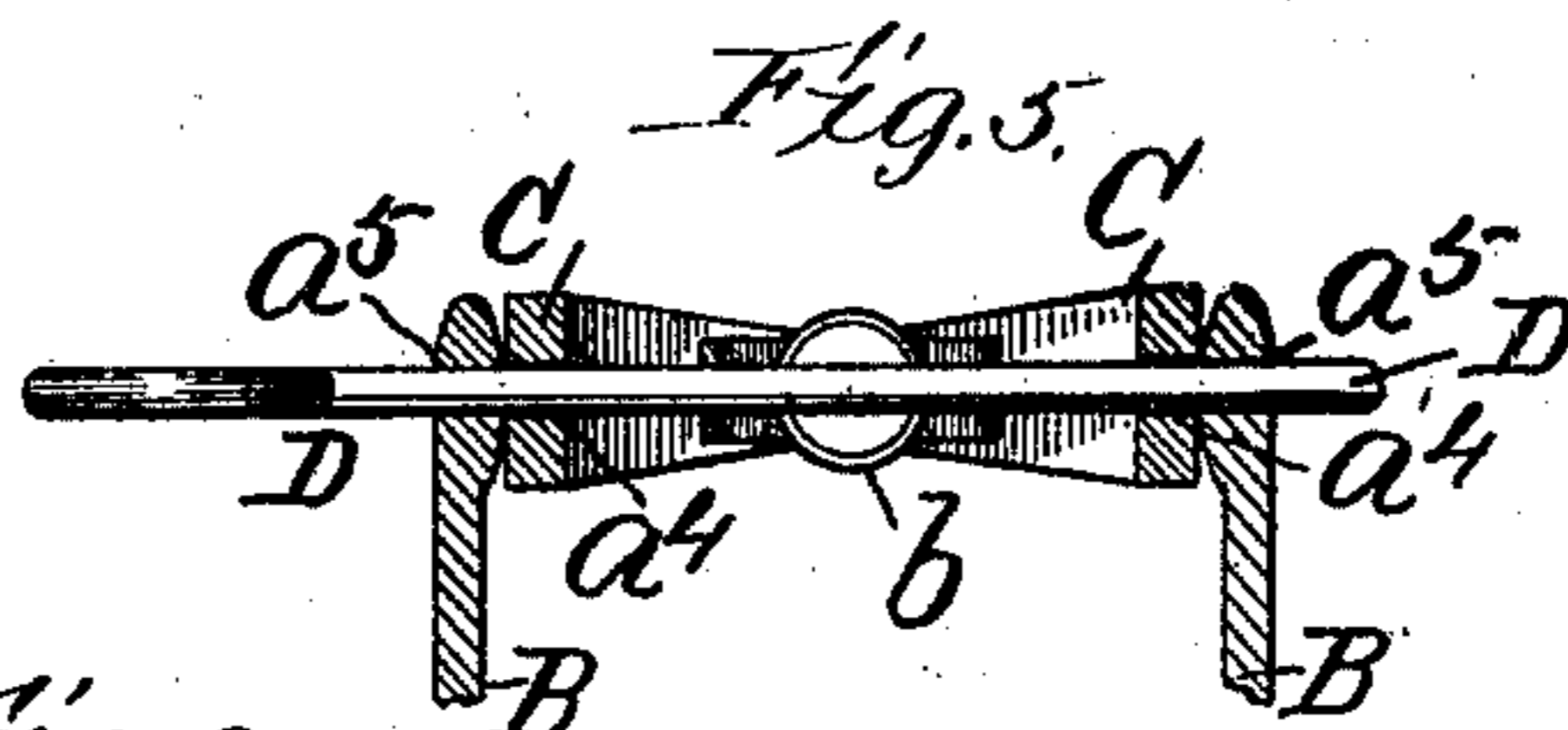
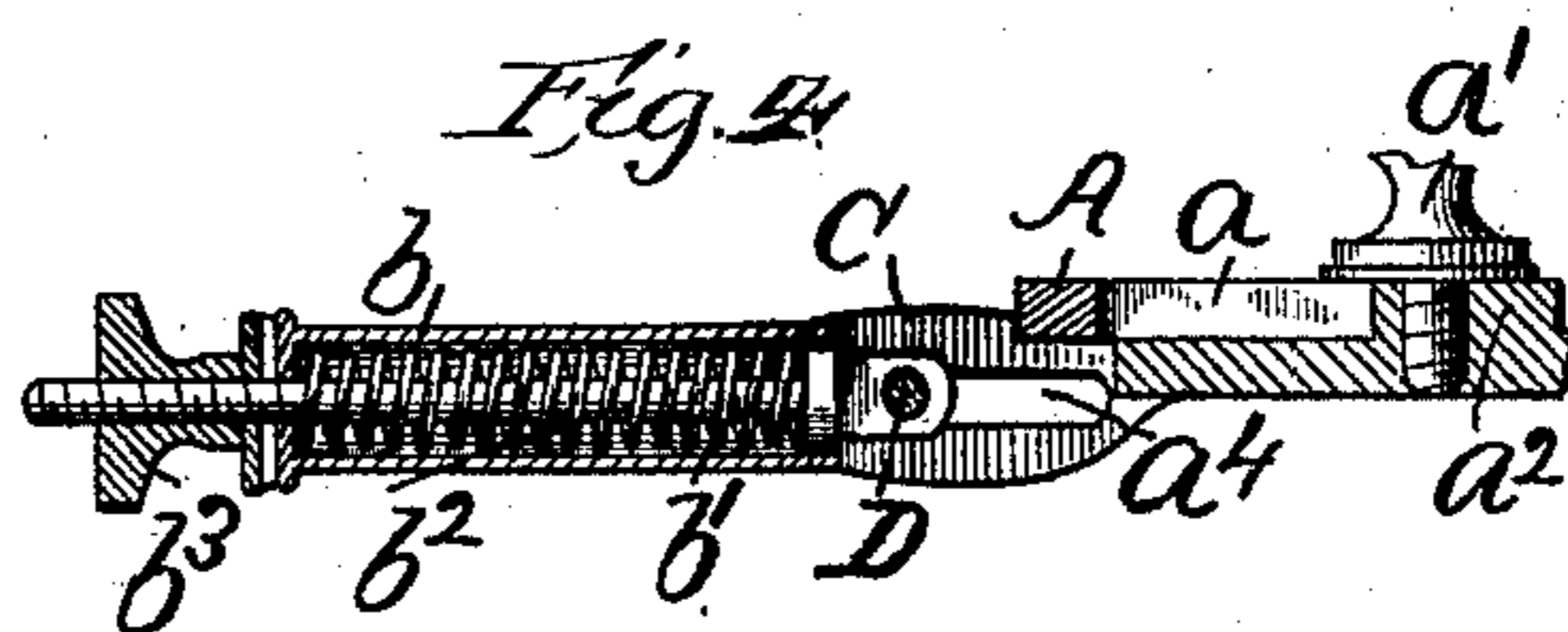
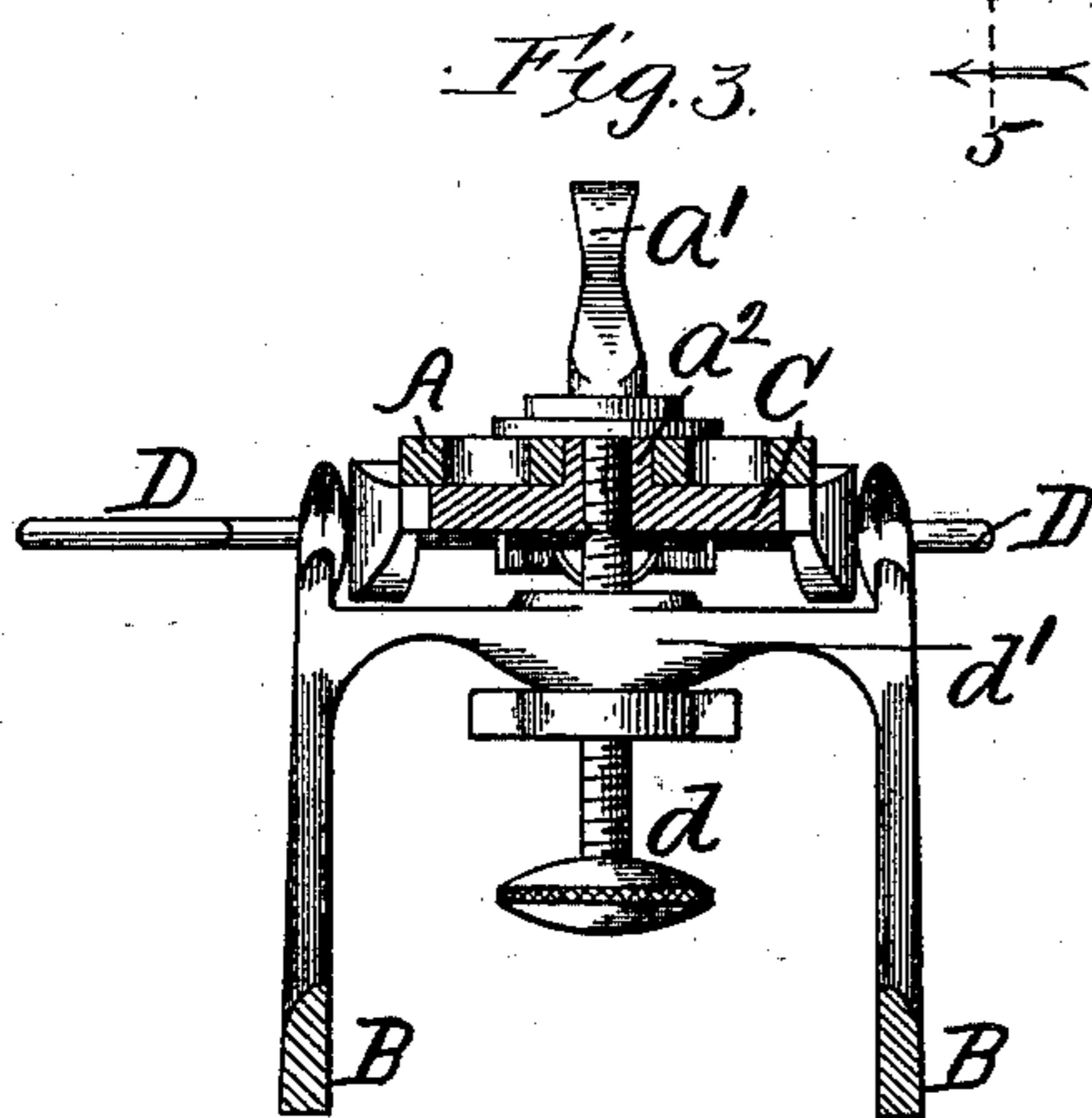
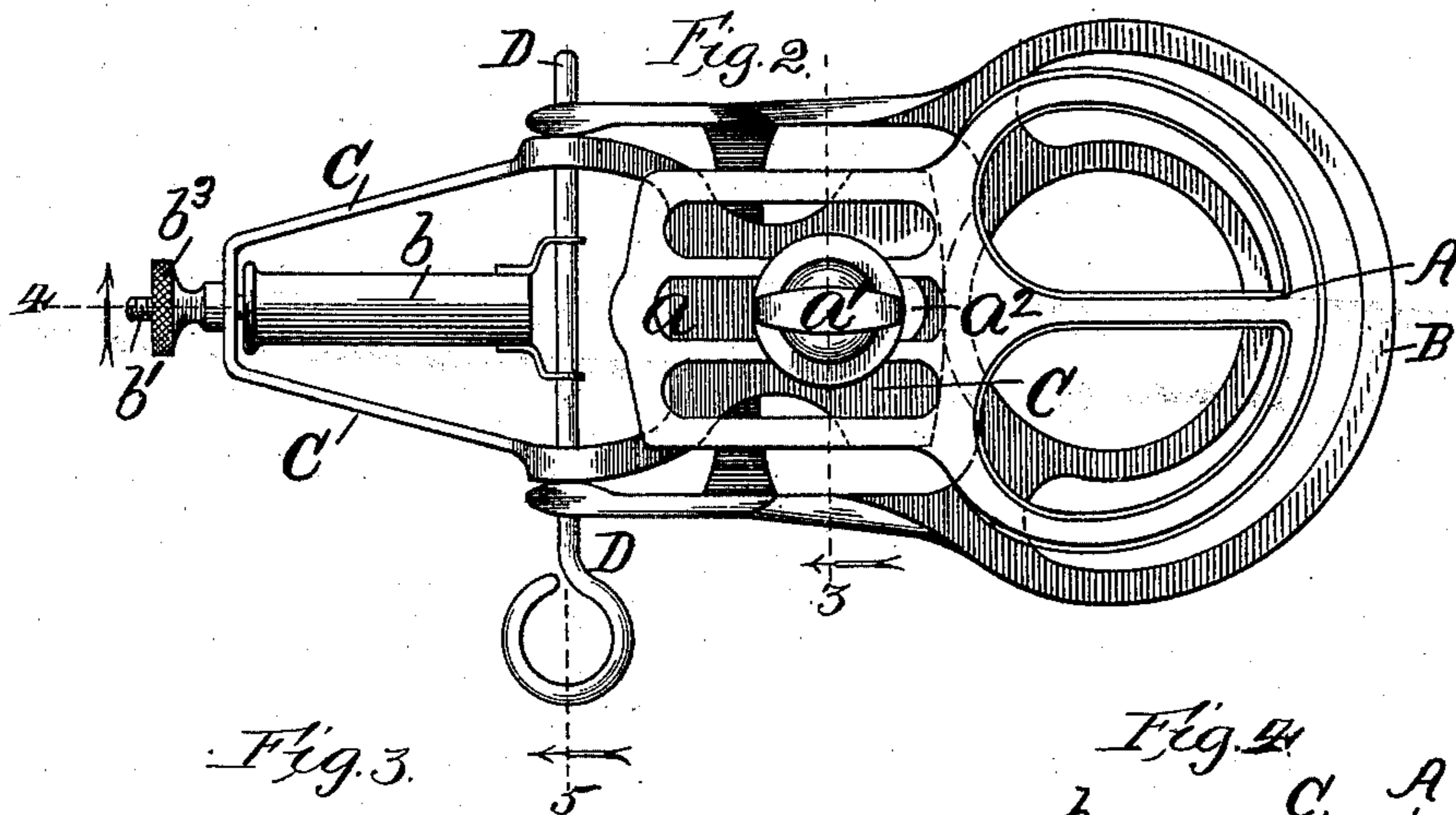
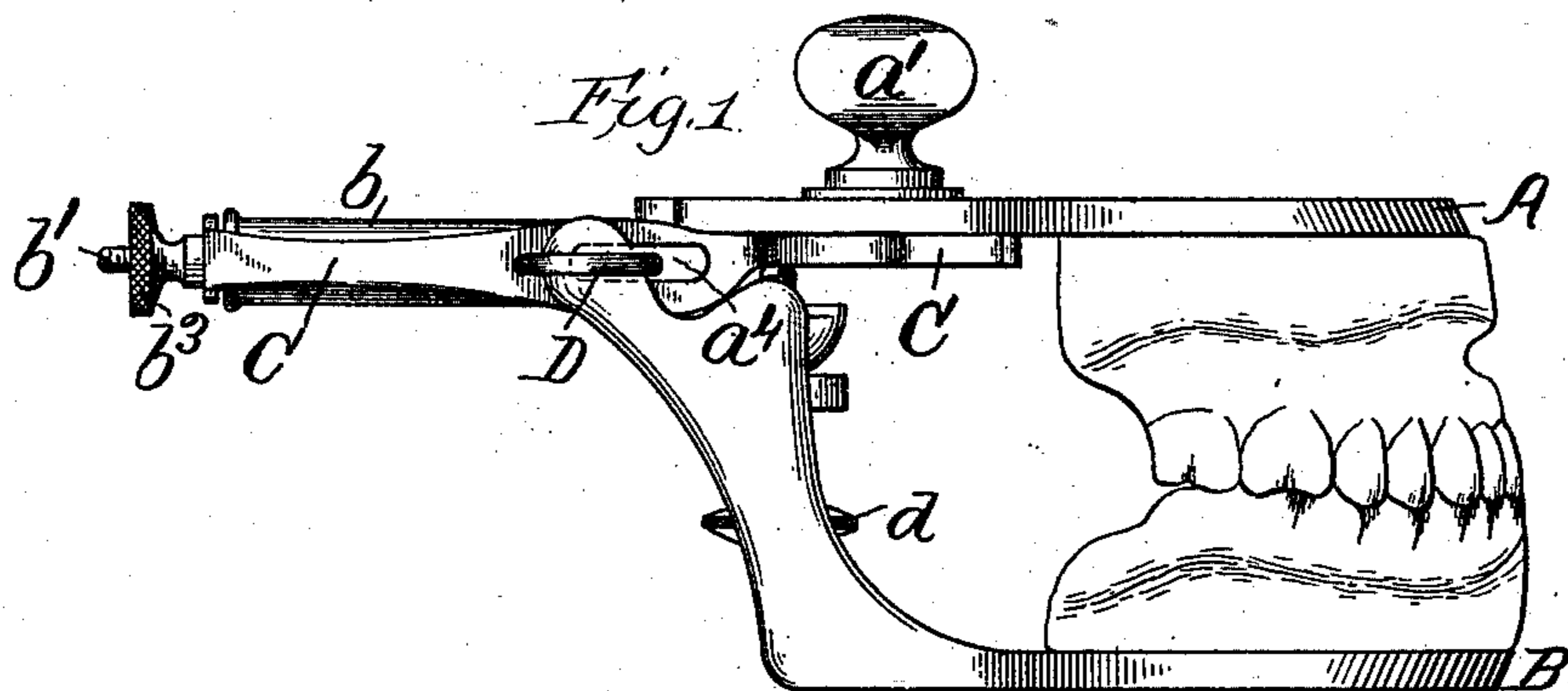
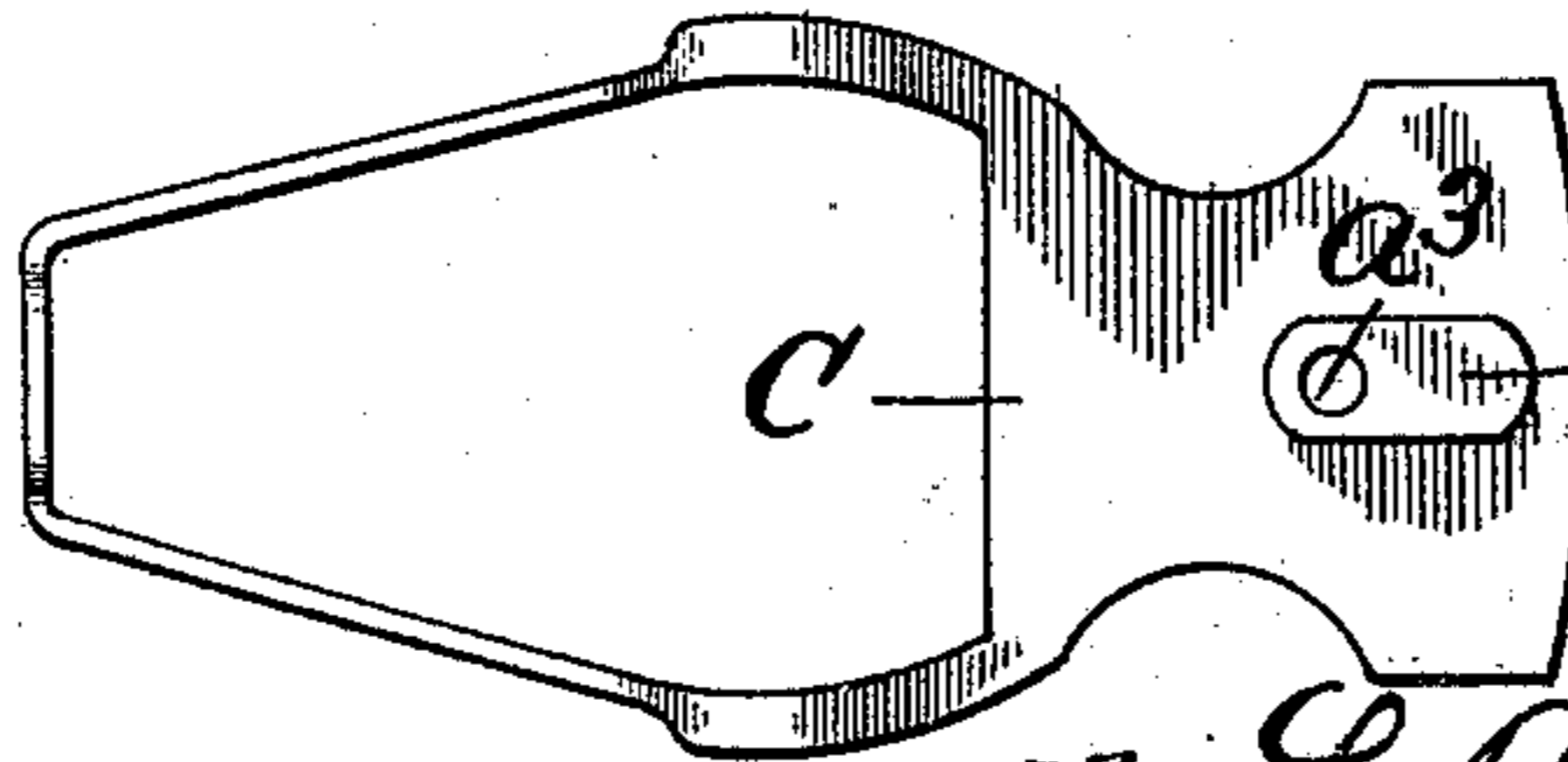


Fig. 6



Witnesses:  
E. C. Chafford,  
L. B. Coupland

Inventor:  
R. H. Antes.  
By L. B. Coupland & Co.  
Attys.

# UNITED STATES PATENT OFFICE.

ROBERT H. ANTES, OF GENESEO, ILLINOIS.

## DENTAL ARTICULATOR.

SPECIFICATION forming part of Letters Patent No. 547,195, dated October 1, 1895.

Application filed July 2, 1895. Serial No. 554,679. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT H. ANTES, a citizen of the United States, residing at Geneseo, in the county of Henry and State of Illinois, have invented certain new and useful Improvements in Dental Articulators, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this application.

This invention relates to improvements in that class of dental devices employed in the process of preparing plates for artificial teeth, and has for its object the construction of an appliance of this character wherein the natural movement of the human jaws will be closely followed and the articulation accurately obtained and the teeth made to fit the mouth no matter what the relative position of the jaws may be with reference to each other. It is frequently the case that one of the jaws overlaps the other, rendering it a very difficult matter to get a proper articulation, and the bite of the teeth imitated so that they accurately fit the mouth.

This invention embraces construction features in addition to the vertical movement of the lower mechanical jaw, whereby a lateral or forward-and-back movement is obtained of a positive character, and after each movement the parts are automatically and accurately returned to their normal position, thus greatly facilitating the articulating of a set of teeth.

In the drawings, Figure 1 is a side elevation; Fig. 2, a plan; Fig. 3, a transverse section on line 3, Fig. 2, looking in the direction indicated by the arrow; Fig. 4, a broken-away longitudinal section on line 4, Fig. 4; Fig. 5, a transverse section on line 5, Fig. 2, and Fig. 6 a detached plan of a bracket to which the upper jaw-plate is adjustably attached.

The upper jaw-plate A and the lower jaw-plate B have the usual hinged connection providing for the opening-and-closing movement. The upper plate A is provided in its rear end with a slot  $a$ , through which is loosely inserted a hand clamping-screw  $a'$ , having a threaded engagement with the inner end of a bracket C. A rib  $a^2$ , Figs. 2, 3, 4, and 6, is formed on the upper side of bracket C and forms a guide for the upper plate in adjust-

ing the same. The aperture  $a^3$ , Fig. 6, receives the clamping-screw  $a'$ . The bracket C is provided in its respective sides with companion slots  $a^4$ , and the rear extension of the lower plate B with apertures  $a^5$ , through which is inserted a pivot pin or rod D, forming a hinged movement for the plates or mechanical jaws. The slots in the bracket also provide for an endwise or forward-and-back movement of the upper plate in a horizontal plane. The inner end of a tube  $b$  is loosely connected to and supported in position on pivot-pin D. A rod  $b'$  is loosely inserted in tube  $b$  and has the outer threaded end projecting through (see Figs. 1, 2, and 4) the rear end of bracket C. A spring  $b^2$  is located inside of the tube and coiled around the rod extending longitudinally therethrough, as shown in Fig. 4. A nut  $b^3$  on the outer end of rod  $b$  provides for regulating the tension of the spring. By reason of this construction and arrangement the upper plate A and its bracket are adapted to have a limited lateral movement in a curved plane, and when the pressure imparting such movement is relaxed the plate is automatically returned to its normal position by the action of the spring.

The inner end of the tube in which the spring is chambered being loosely connected to the hinging pivot-pin will slide in either direction thereon, and at the same time the spring and its rod have an endwise movement in providing for and accommodating themselves to the change of position of the upper jaw-plate in its lateral movement. Normally the bracket is in the position illustrated, the wall of the back ends of the slots  $a^4$  bearing against the pivot-pin. When the upper jaw-plate and its bracket are moved straight backward the pressure of the spring has the effect of returning these parts to their normal position, the same as moved laterally—in fact, the lateral or back movement may be coincident. A hand-screw  $d$ , inserted through the cross-bar  $d'$  of the rear extension of the lower plate B, bears against the under side of the upper plate when in a closed position and provides the usual means for adjusting the inclination of the upper plate.

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

1. In an articulator, the combination with the upper jaw-plate, adapted to have both a lateral and endwise movement, of a spring, adapted to automatically return said plate to its normal position, substantially as described.

2. In an articulator, the combination with the upper spring pressed jaw-plate, of a bracket, provided with slots in the respective sides thereof, the lower jaw-plate, and the pivot-pin, connecting said bracket and lower plate, substantially as described.

3. In an articulator, the combination with a bracket, of the upper jaw-plate, adjustably

connected thereto, and adapted to have a lateral and endwise movement, the lower jaw plate, a pivot-pin, connecting said bracket and lower-plate, a tube, loosely connected to said pin, a rod, inserted loosely through said tube, a spring, coiled thereon, and a tension regulating-nut, mounted on the threaded end of said rod, substantially as described.

ROBERT H. ANTES.

Witnesses:

HENRY T. ANTES,

F. H. MCARTHUR.