

(No Model.)

W. H. CHADDOCK.
BURETTE CLAMP.

No. 462,032.

Patented Oct. 27, 1891.

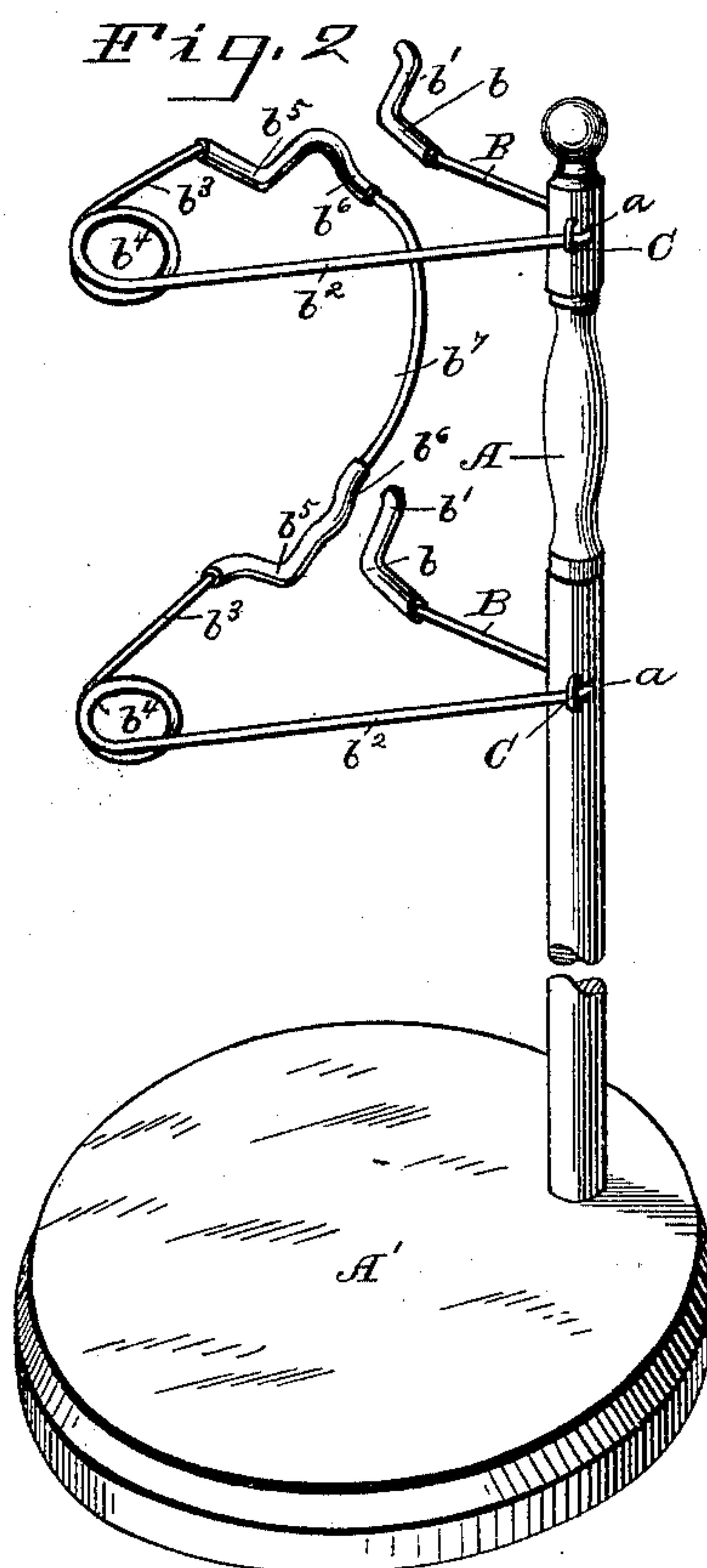
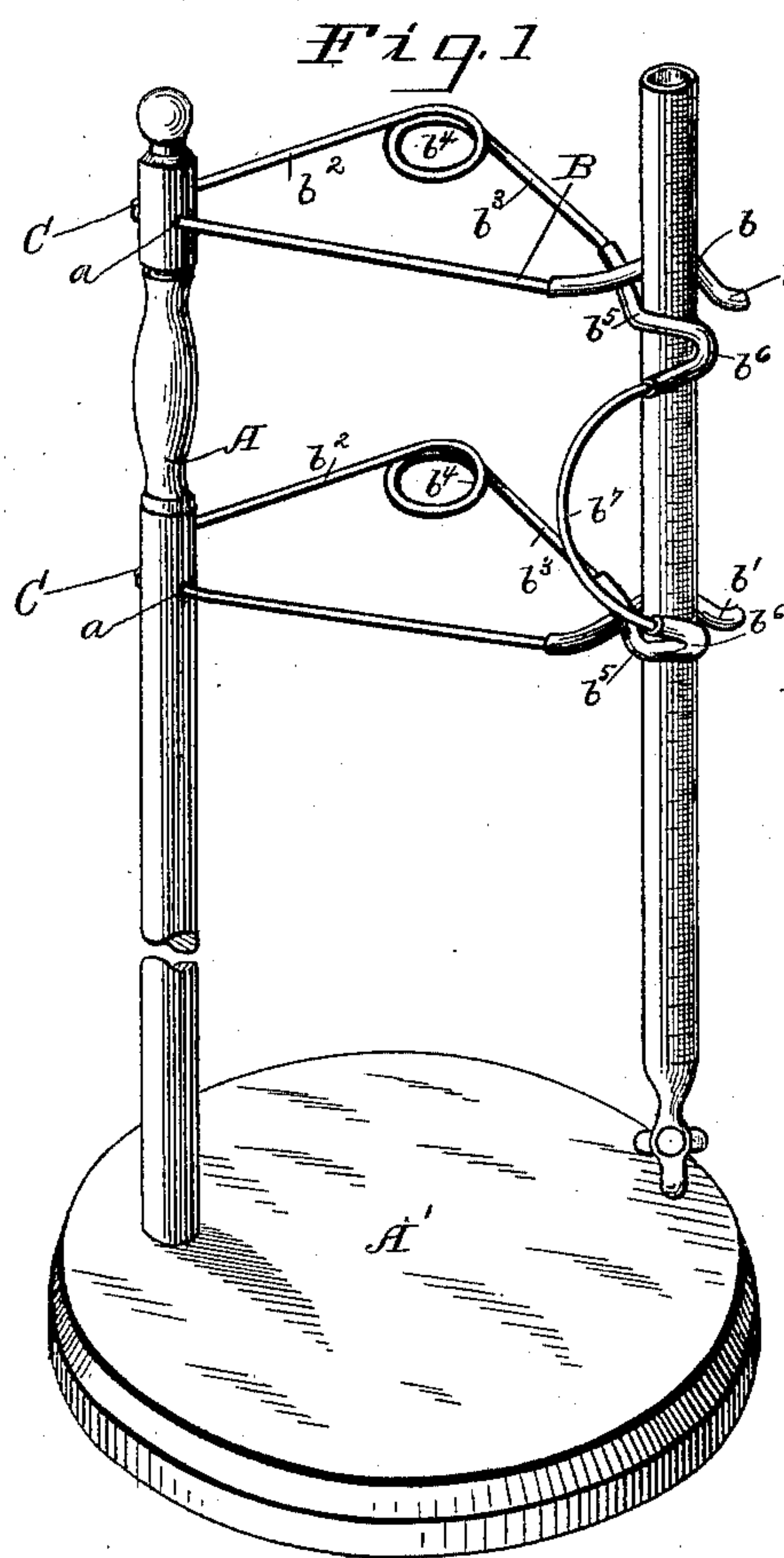
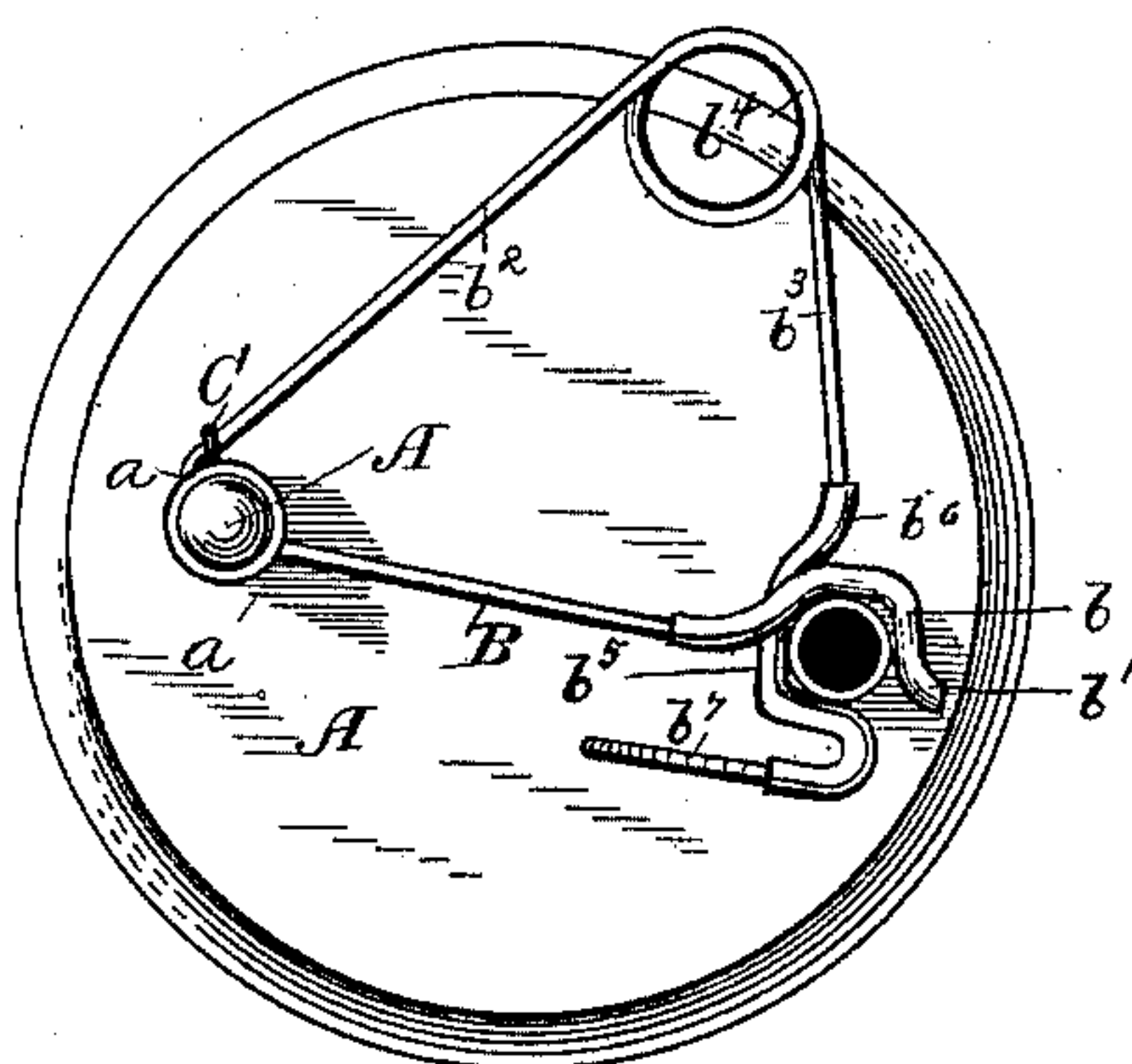


Fig. 3



WITNESSES:

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INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM H. CHADDOCK, OF CLEVELAND, OHIO.

BURETTE-CLAMP.

SPECIFICATION forming part of Letters Patent No. 462,032, dated October 27, 1891.

Application filed December 26, 1890. Serial No. 375,780. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. CHADDOCK, a citizen of the United States, and a resident of Cleveland, county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Burette-Clamps, of which the following is a specification, the principle of the invention being herein explained and the best mode in which I have contemplated applying that principle so as to distinguish it from other inventions.

The objects of my invention are to produce a clamp for conveniently clamping and holding burettes, pipettes, or other tubular chemical apparatus in vertical position, and to provide such a clamp with yielding clamping-faces, which will not injure the apparatus or the graduations marked thereon.

In the accompanying drawings, Figure 1 represents a perspective view of my improved burette holder or clamp, showing it in operative position; Fig. 2, a perspective view of the holder, showing it open; and Fig. 3, a top plan view.

In said drawings, the letter A indicates an upright secured in a suitable base A'.

The clamp is formed from one piece of spring-wire, the straight arms B B of which are inserted through holes *a* in the upright. The outer ends of the arms B are bent in horizontal planes to form concave V-shaped jaws for clamping the burette or tube from one side, as shown at *b*, and said bent portions are covered with yielding sleeves *b'*, preferably formed from pieces of rubber tubing slipped upon the ends of the arms. At the other side of the holes in the upright the wire is bent and secured to the upright by staples *c*, and two straight portions *b²* and *b³* are formed upon the wire, having coils *b⁴* at their angles. At the outer ends of the outer straight portions *b³* are formed bends *b⁵*, which are covered by rubber sleeves *b⁶* and form V-shaped jaws for clamping the burette or tube from the opposite side. The portion of the wire between said V-shaped jaws, at the point where the wire is doubled, forms a curved handle *b⁷*, by means of which the movable jaw portion of the clamp may be drawn between the stationary jaws and sufficiently far

from them to admit of the burette or tube being inserted.

The rubber sleeves upon the jaws will form a yielding surface to bear against the graduated burette or glass tube and will also prevent sliding of the same, so that the burette or glass tube may be held safely and securely in the clamp and will not be scratched or injured by the jaws, and the V shape of the jaws will admit of said jaws fitting burettes or tubes of varying diameters, each jaw having at all times two tangential bearings upon the burette or tube.

The staples which confine the inner spring portions to the upright will prevent the arms of the wire from turning in the holes and will also prevent said inner spring-portions from springing out too far when the jaws are released from the pipe.

The jaws will be in vertical alignment when holding the burette or glass tube, the upper and lower straight rigid arms and spring portions being bent at exactly the same angles.

The foregoing description and accompanying drawings set forth in detail mechanism embodying my invention. Change may be made therein provided the principles of construction respectively recited in the following claims are employed.

I therefore particularly point out and distinctly claim as my invention—

1. A burette-clamp consisting of an upright, two stationary wire jaws, and two movable wire jaws connected to each other by means of a handle, each two of said jaws being supported to project in vertical alignment from said upright, substantially as set forth.

2. A burette-clamp consisting of an upright, two stationary V-shaped wire jaws having a yielding covering and projecting in vertical alignment from said upright, and two movable V-shaped wire jaws having a yielding covering, connected to each other by means of a handle and projecting in vertical alignment from said upright, substantially as set forth.

3. A burette-clamp consisting of a piece of wire bent to form two straight arms having V-shaped yielding-covered jaws at their extremities, two pairs of straight spring por-

tions at an angle to said arms, having spring-coils between each pair and formed with V-shaped yielding-covered jaws, and a curved handle between said jaws, substantially as set
5 forth.

4. A burette-clamp consisting of an upright having two transverse holes, a piece of spring-wire bent to form two straight arms inserted through said holes and formed with V-shaped
10 jaws at their extremities to form two pairs of straight spring portions at an angle to said arms and formed into coils at their junctures and with V-shaped jaws at their ends and to

form a curved handle between said jaws, staples straddling the inner spring portions and 15 secured in the upright, and pieces of rubber tubing covering the V-shaped jaws, substantially as set forth.

In testimony that I claim the foregoing to be my invention I have hereunto set my hand 20 this 20th day of December, A. D. 1890.

WILLIAM H. CHADDOCK.

Witnesses:

WM. LECHER,
NORMAN S. ROSE.