

(No Model.)

C. C. BARTON.  
MECHANICAL MOVEMENT.

No. 388,390.

Patented Aug. 28, 1888.

Fig. 1.

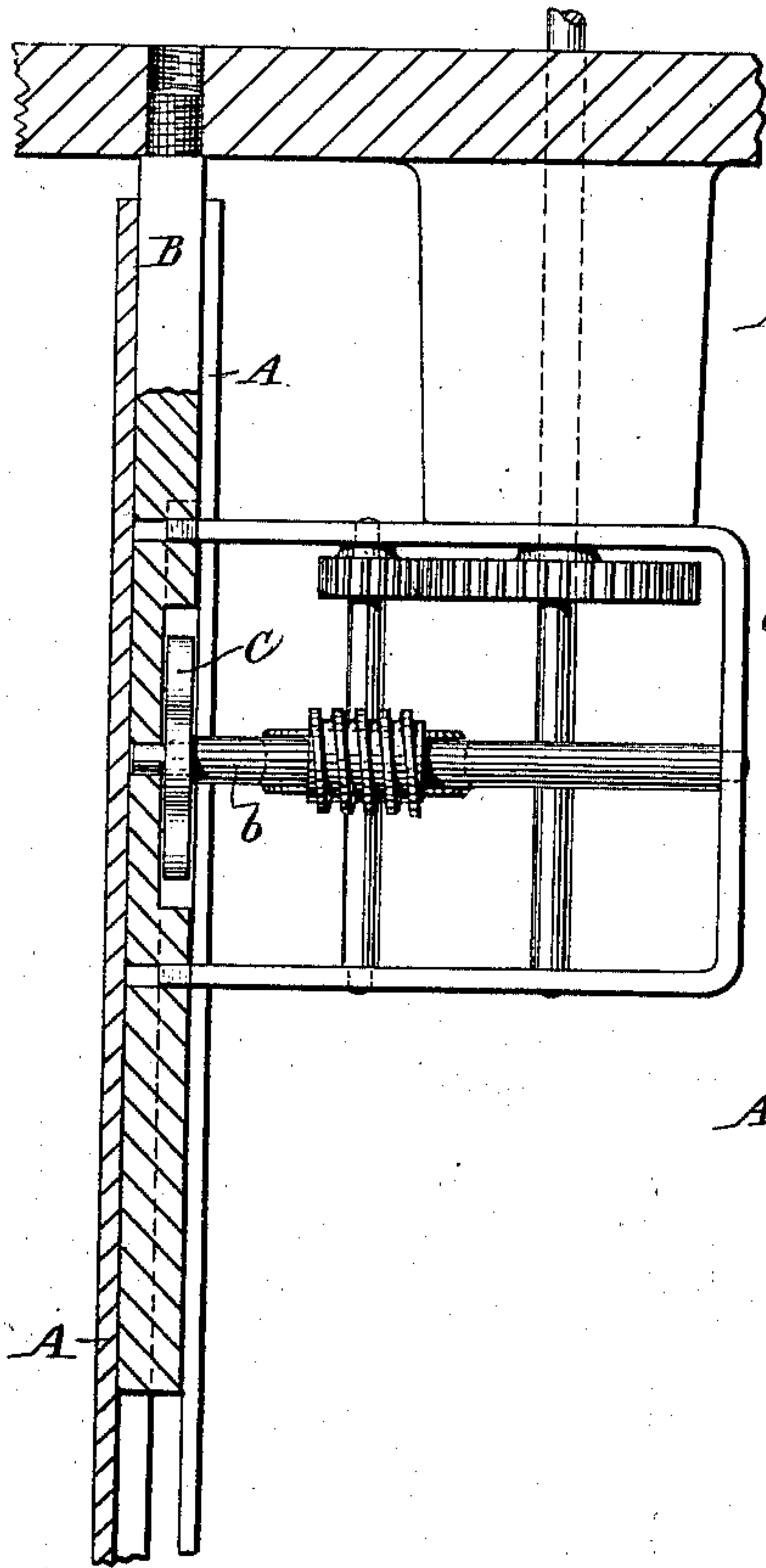


Fig. 2.

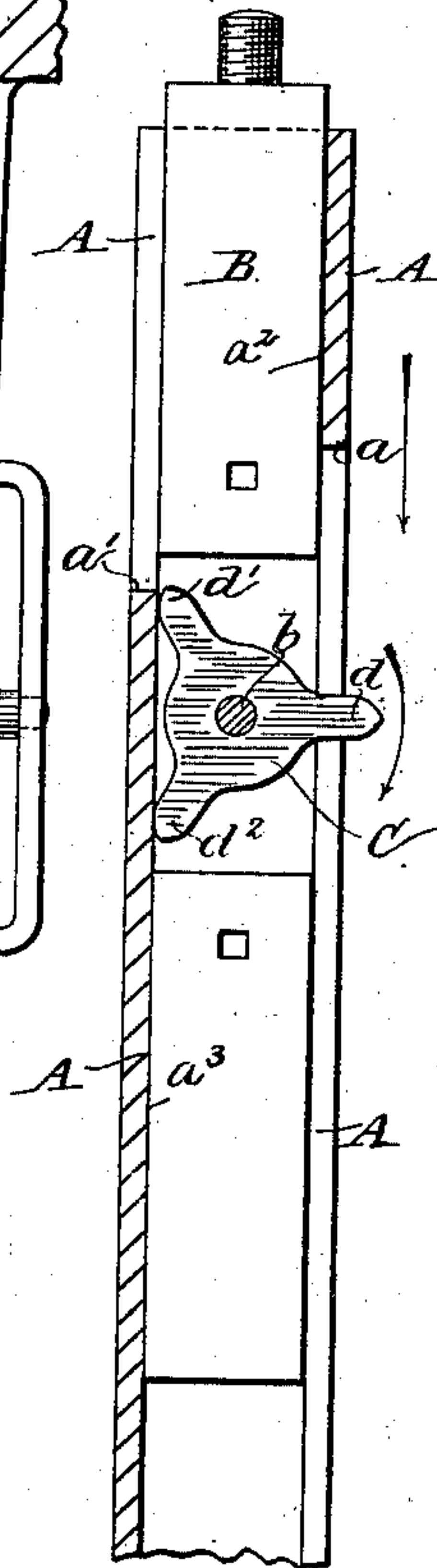


Fig. 3.

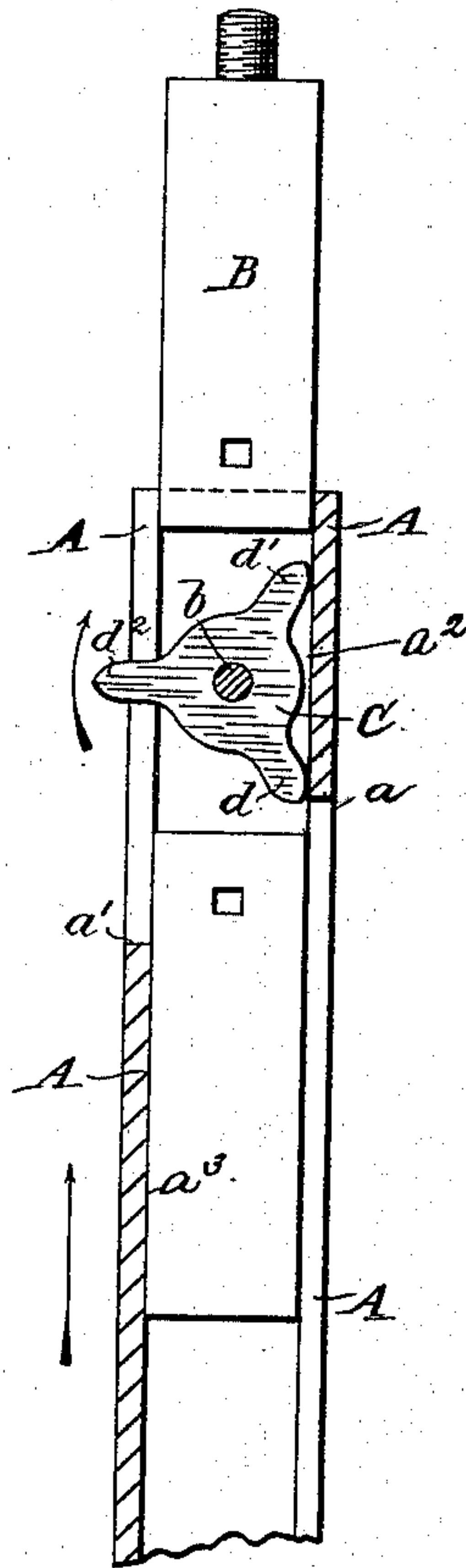


Fig. 5.

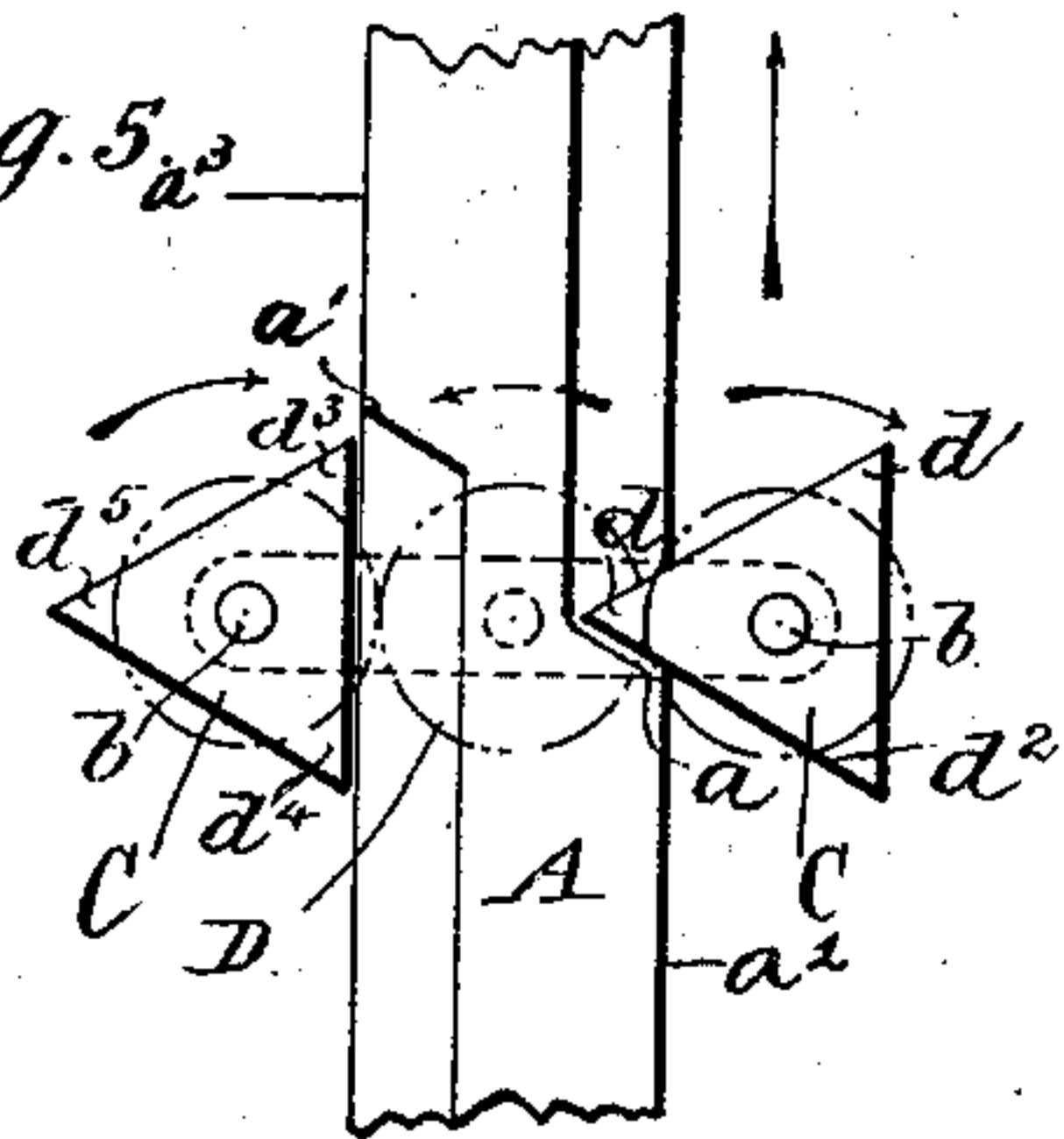


Fig. 4.

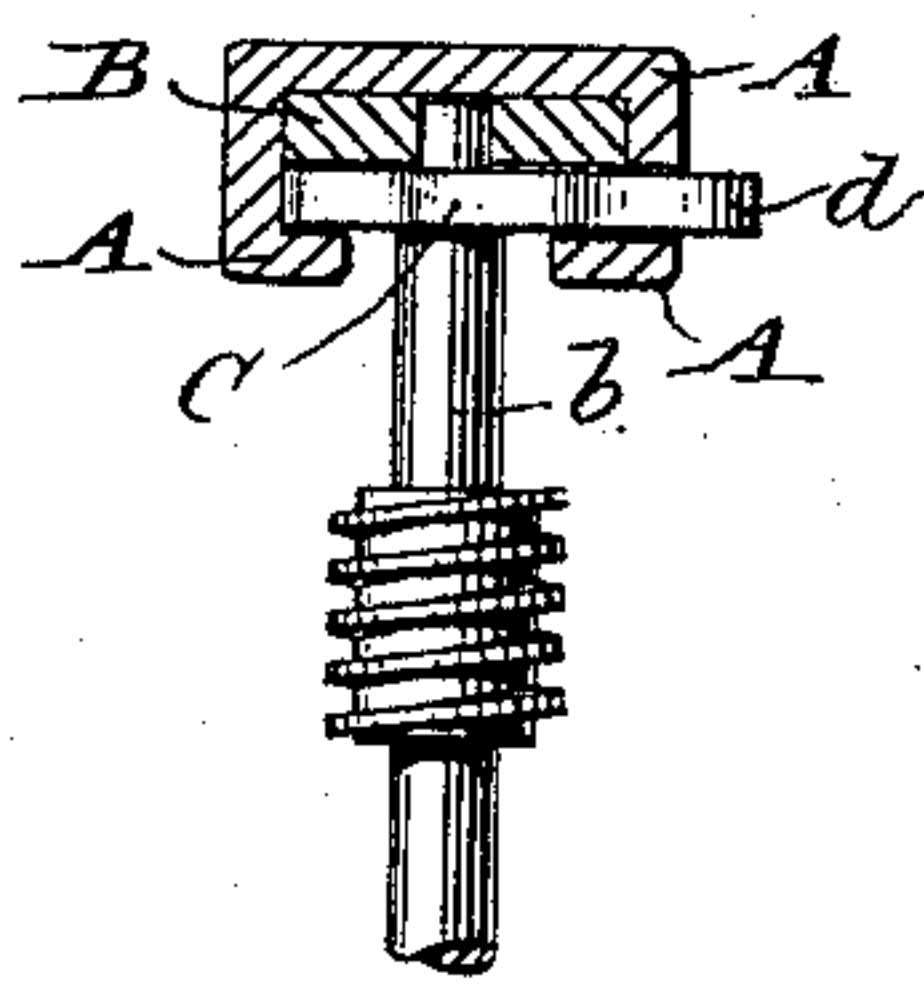
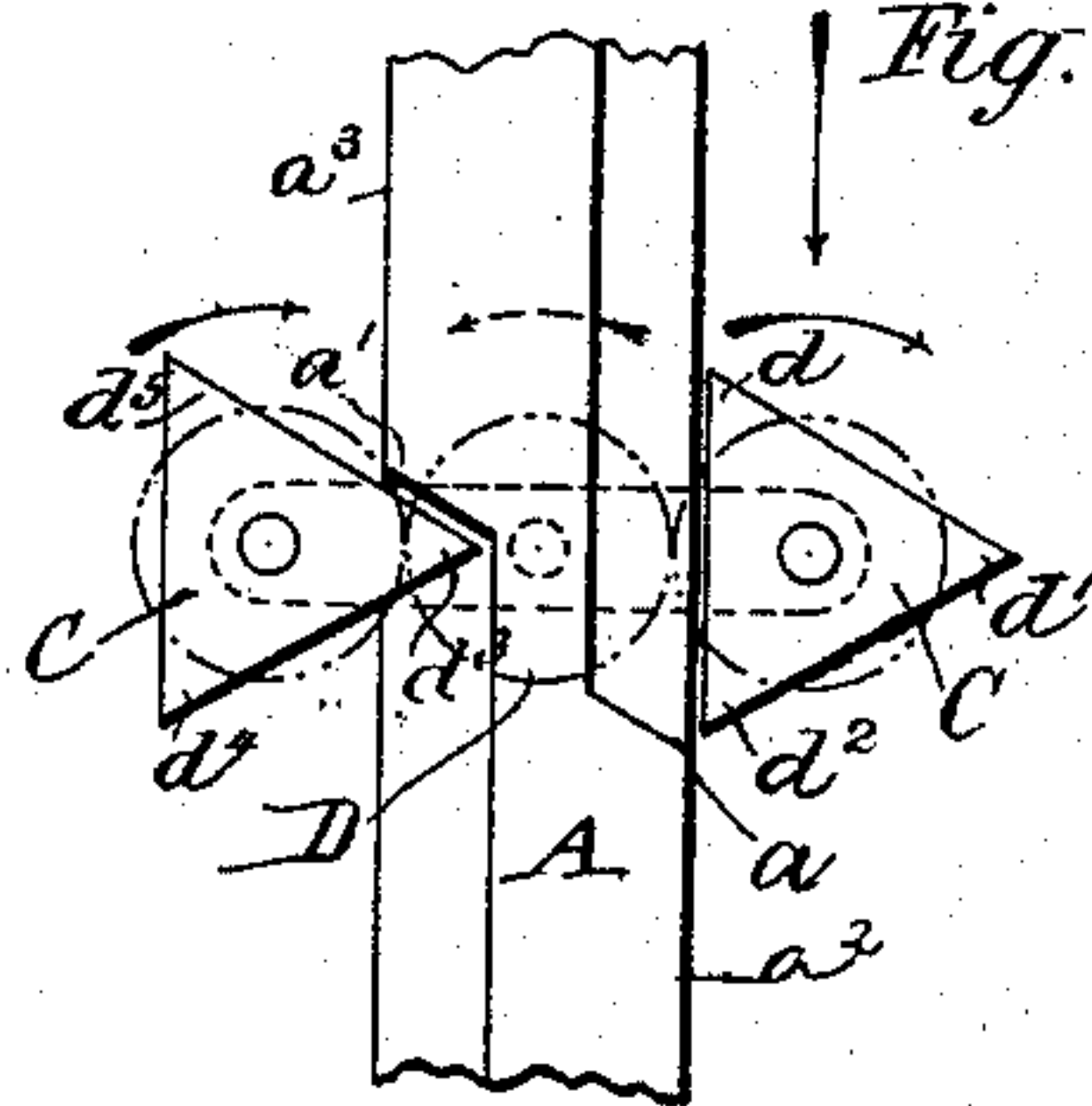


Fig. 6.



Witnesses.

A. E. Faromann.  
J. Campbell.

Inventor.

C. C. Barton.  
by Foster & Freeman  
attys



# UNITED STATES PATENT OFFICE.

CHARLES C. BARTON, OF EDINBURGH, SCOTLAND.

## MECHANICAL MOVEMENT.

SPECIFICATION forming part of Letters Patent No. 388,390, dated August 28, 1888.

Application filed October 19, 1887. Serial No. 252,852. (No model.) Patented in France December 13, 1887, No. 187,572, and in Belgium December 14, 1887, No. 79,914.

*To all whom it may concern:*

Be it known that I, CHARLES CASIMIR BARTON, a citizen of the United States, residing at the Windsor Hotel, Edinburgh, Scotland, have  
5 invented a new and useful Improvement in Mechanical Movements, (for which I have received Letters Patent in France, No. 187,572, dated December 13, 1887, and in Belgium, No. 79,914, dated December 14, 1887,) of which  
10 the following is a specification.

This invention relates to that class of mechanical movements in which reciprocating is converted into intermittent rotary motion, and may be used in connection with a counting or  
15 registering device, or with any of the other well-known devices, parts of which have an intermittent rotary motion.

The invention consists of an improved construction and arrangement of parts, which not  
20 only allow for such conversion, but also have the additional advantages of allowing for intermittent and irregular length of reciprocating movement and locking of the rotary parts, except during such time as they are being di-  
25 rectly operated upon.

The nature of my invention may be briefly described by stating that the driving-shaft of the rotary part of the movement is actuated by an angular plate or toothed wheel which  
30 is intermittently rotated by the reciprocating parts which operate upon opposite sides of it, and are so arranged that the plate or wheel is alternately held upon one side until the reciprocating part is about to operate upon the  
35 other side. One or more of the angular plates or toothed wheels may be employed, and when two or more are used either or all may be caused to actuate rotary shafts and connected gear.

In order that my invention may be clearly  
40 understood, reference is made to the accompanying drawings, in which—

Figure 1 represents a side elevation, partly in section, of the reciprocating mechanism and the arrangement of parts for converting the  
45 movement thereof into intermittent rotary motion. Fig. 2 represents a front view, partly in section, of the reciprocating and intermittent rotating part. Fig. 3 is a like view with the parts in a different or alternate position. Fig.  
50 4 is a plan view of the angular wheel and its

shaft, the frame and reciprocating bar being in section. Fig. 5 represents a front elevation of the arrangement when a single reciprocating arm is used to act alternately upon two rotary plates or pieces and alternately to hold  
55 same. Fig. 6 is a like view with the parts in a different or alternate position.

The reciprocating parts A may be in the form of a single bent and slotted sheath surrounding the frame B, or two separate rods or  
60 reciprocating arms may be used, or a single arm may be employed to operate two or more of the rotating parts.

In Figs. 1, 2, 3, and 4 are shown a single rotating part, C, mounted upon shaft *b*, one  
65 end of which is carried in bearings in frame B. Part C is here shown as consisting of a three-toothed wheel, the teeth of which, when at right angles to the plane of motion of the reciprocating part A, being of sufficient length  
70 to extend out into said plane of motion.

Referring to Fig. 2, let it be assumed that the reciprocating part A is traveling in the direction of the arrow, when there will be no motion of wheel C until the shoulder *a* comes  
75 in contact with tooth *d*, which it will carry with it, giving a partial rotation to wheel C, as the bearing-face *a*<sup>2</sup>, which is in advance of the shoulder *a*, will have traveled far enough to permit *d*<sup>2</sup> to move, and the wheel will then  
80 be in the position shown in Fig. 3, where it will be temporarily locked against movement by reason of teeth *d* *d'* being in contact with the flat bearing-face *a*<sup>3</sup> of the sheath A. On the reverse motion of the sheath A, as indicated by  
85 the arrow in Fig. 3, teeth *d* *d'* are free of the bearing-face *a*<sup>2</sup> before or just as the shoulder *a'* strikes tooth *d*<sup>2</sup>.

In Fig. 5 the pieces C are about to be operated by slotted rod A, which is supposed to  
90 be moving in the direction of the arrow, part *a*, being just about to strike and move point *d*, while point *a'* has just released the face *d*<sup>3</sup> *d*<sup>4</sup>, so that as *d* is moved and locked by *a* between *d* *d*<sup>2</sup> its motion may be transmitted  
95 through gear D and point *d*<sup>3</sup> brought into the position shown in Fig. 6, ready to be acted upon when part *a'* is brought against it on the return-stroke of rod A. In this construction gear D may be used to impart the intermit-  
100



tent rotary motion to the desired mechanism, either alone or in conjunction with shafts *b b*, as may be desired.

What I claim is—

5 1. In a device for converting reciprocating into intermittent rotary motion, a reciprocating bar provided with a shoulder and a bearing-face, in combination with an angular wheel arranged to be turned by the contact of said  
10 shoulder and to be locked by the said face, substantially as described.

2. In a device for converting reciprocating into intermittent rotary motion, an angular  
15 wheel, in combination with a reciprocating bar provided with a shoulder and with a bearing-face on opposite sides of said wheel, the shoulders being arranged to alternately contact with and turn the wheel, and the bearing-  
20 faces to alternately lock the wheel against rotation after each movement by one of the shoulders, substantially as described.

3. In a device for converting reciprocating

into intermittent rotary motion, an angular wheel, in combination with a reciprocating bar provided with bearing-faces *a<sup>2</sup> a<sup>3</sup>*, having  
25 shoulders *a a'*, arranged on opposite sides of the wheel and one in advance of the other, substantially as described.

4. In a device for converting reciprocating into intermittent rotary motion, the combina-  
30 tion of the frame-piece B, the angular wheel C, having its shaft journaled in piece B, and the reciprocating sheath partially surrounding and guided by the frame-piece B and provided with bearing-faces having shoulders *a a'*  
35 projecting into the paths of the angular portions of the wheel, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

CHARLES C. BARTON.

Witnesses:

ARTHUR R. SKERTEN,  
PERCY WOODWARD.