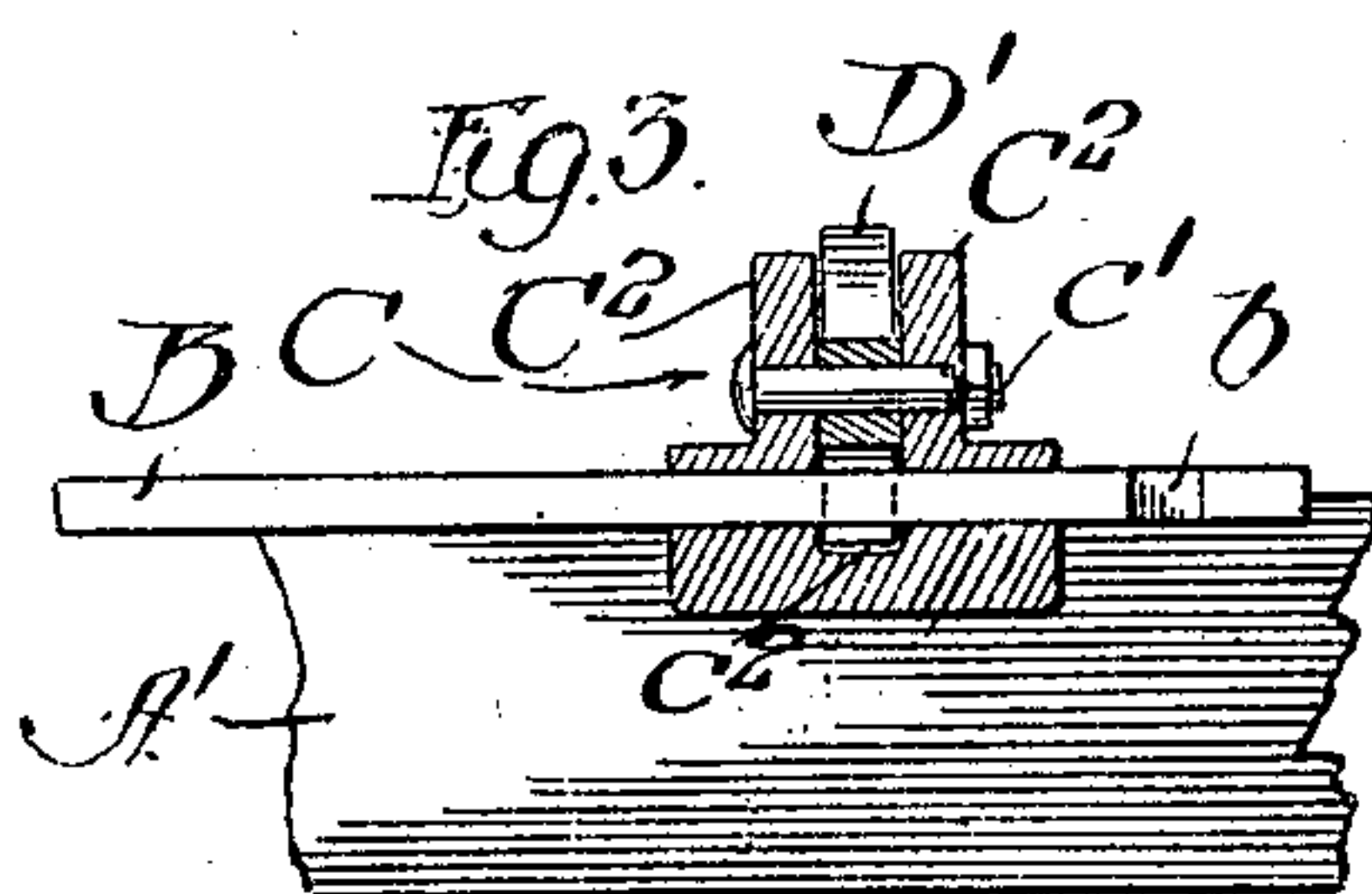
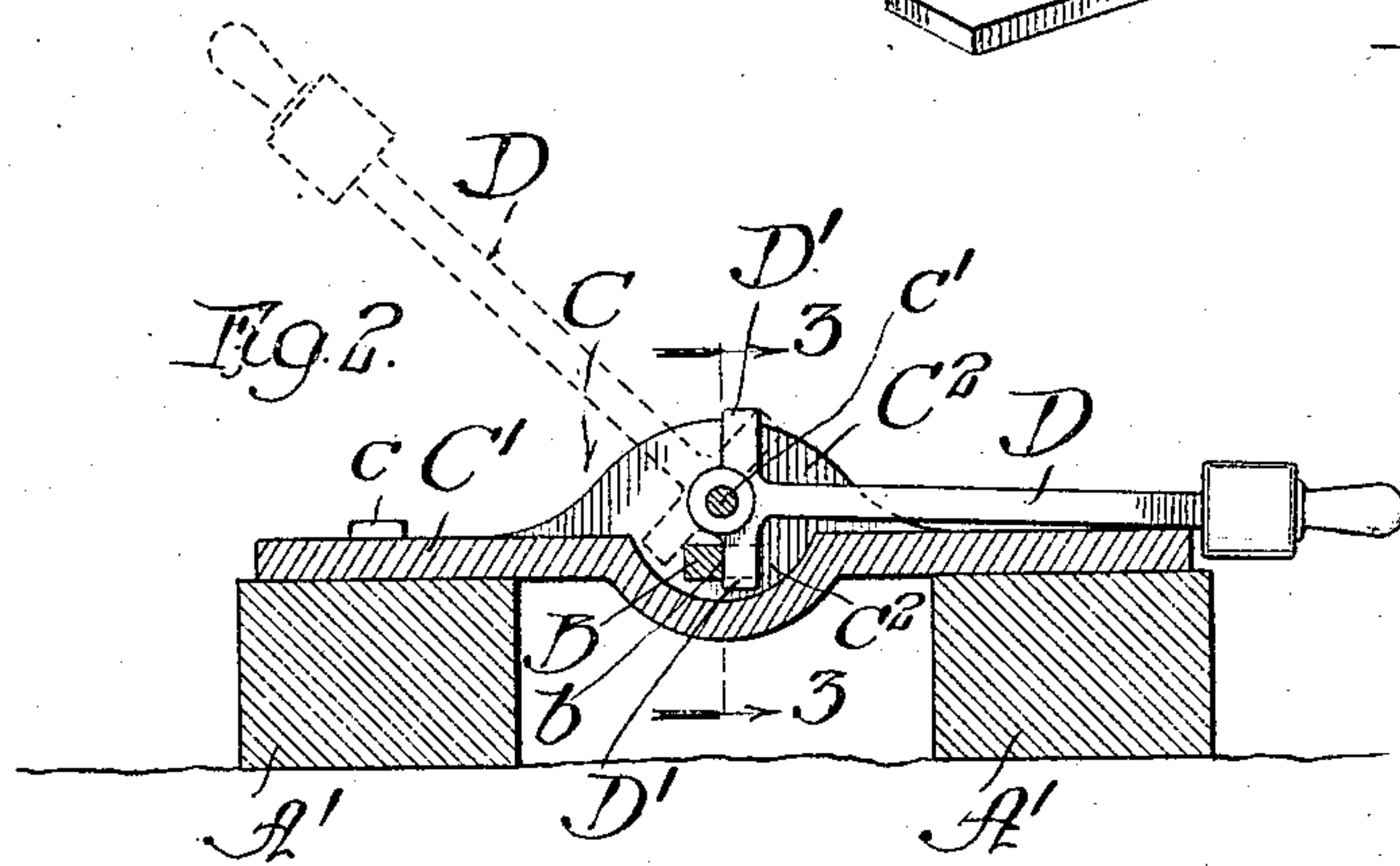
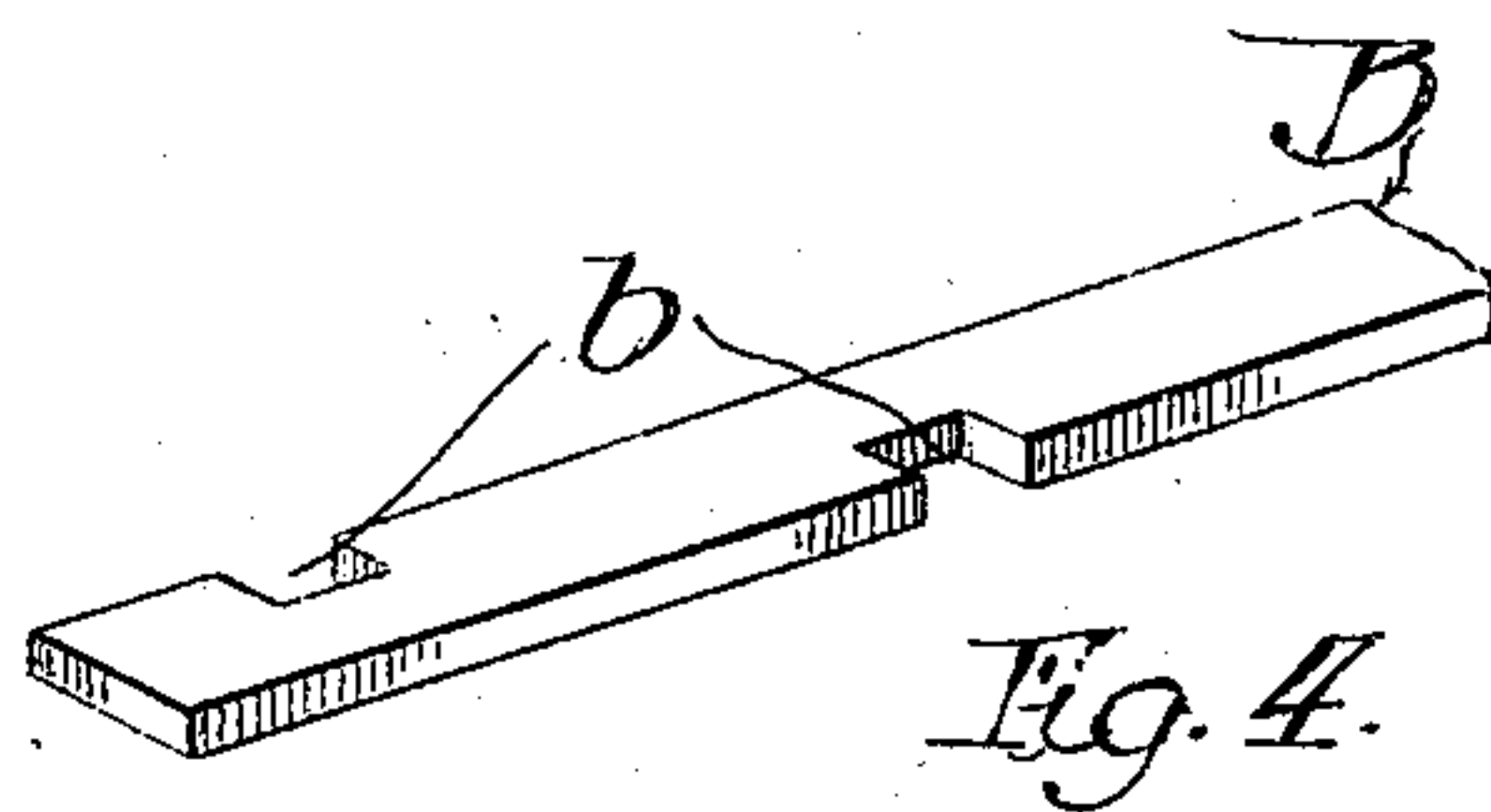
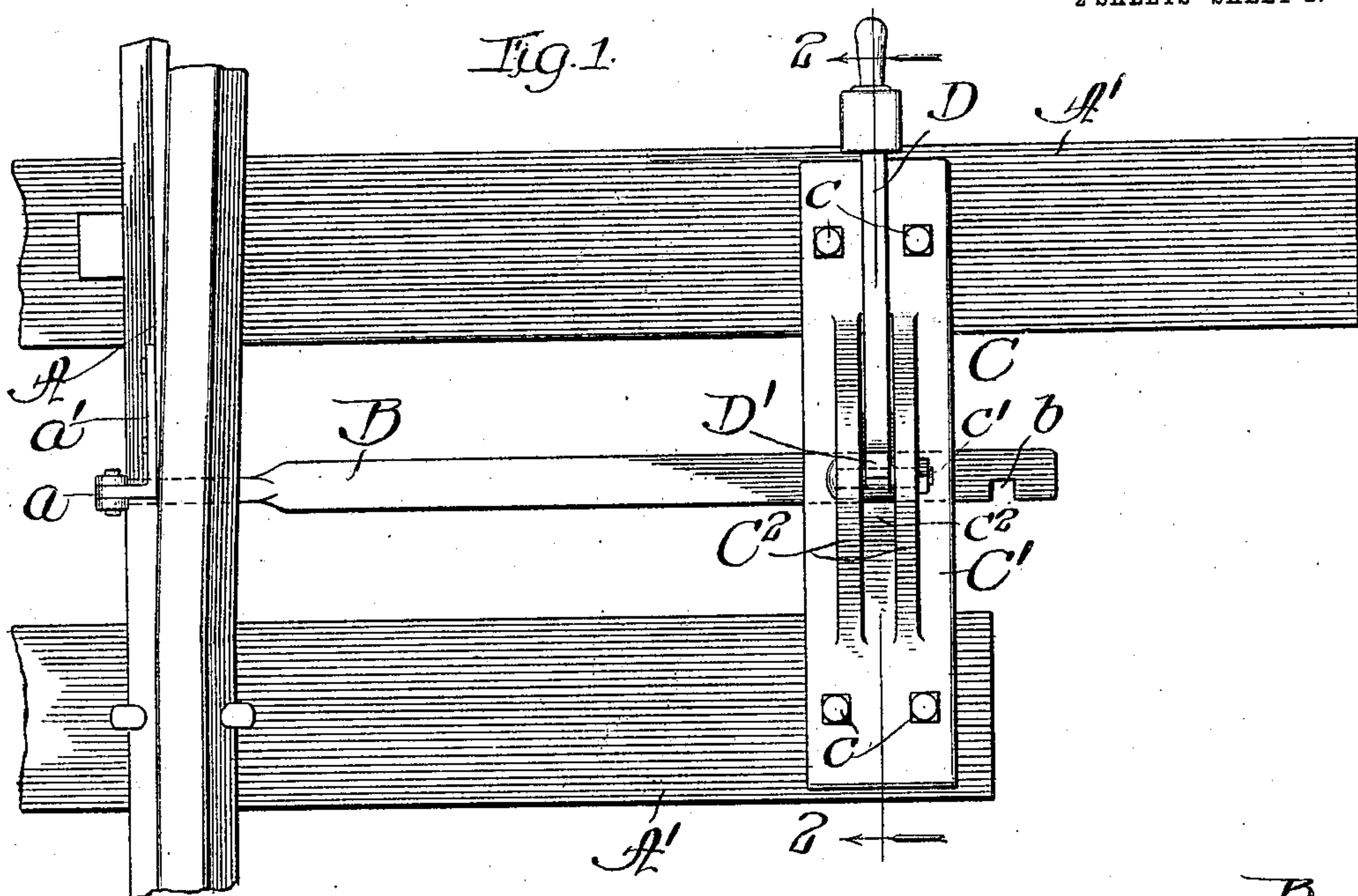


No. 877,096.

PATENTED JAN. 21, 1908.

J. B. LATIMER.  
SWITCH POINT LOCK.  
APPLICATION FILED OCT. 26, 1906.

2 SHEETS—SHEET 1.



Witnesses:  
J. H. Alford  
W. H. Hall.

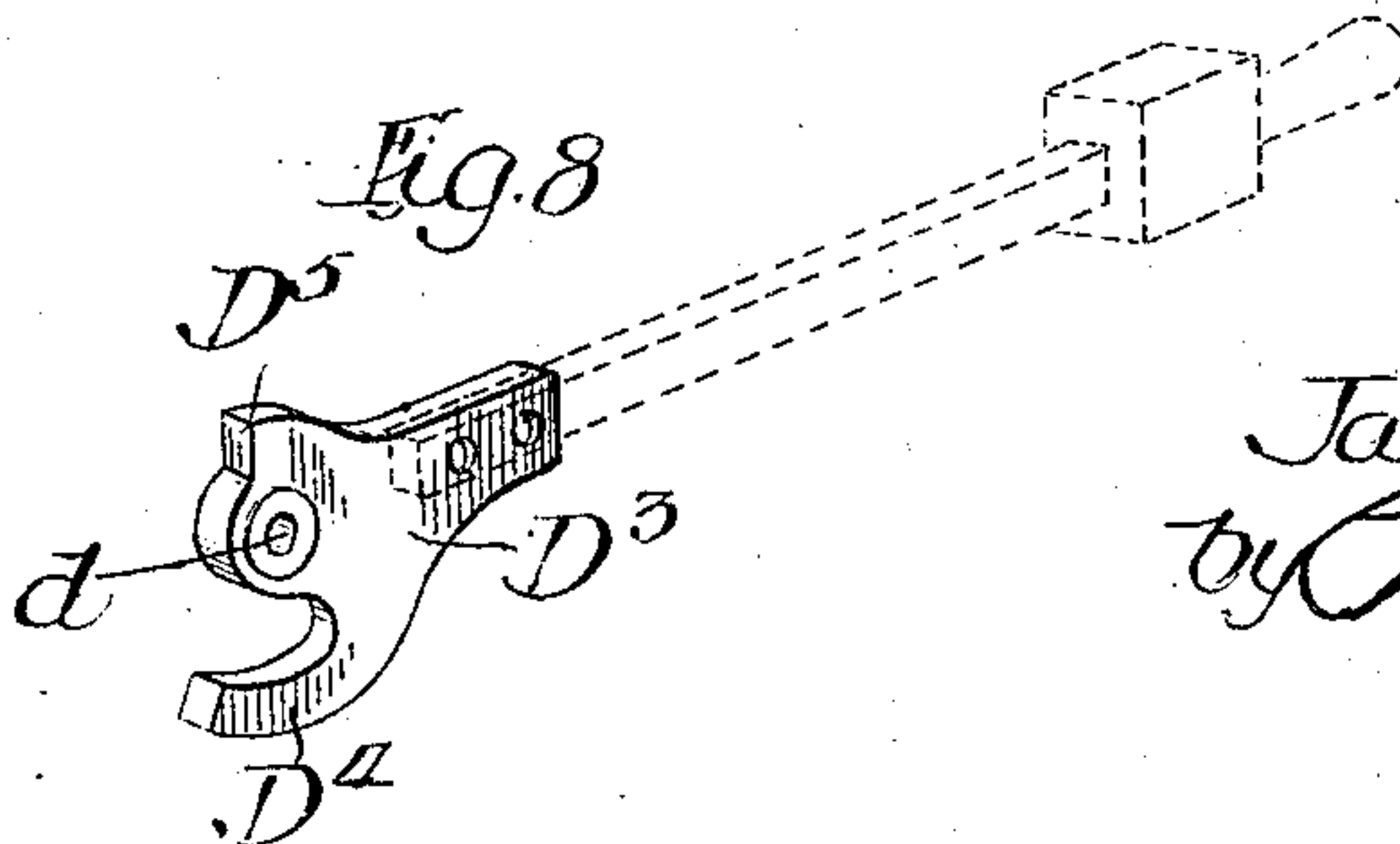
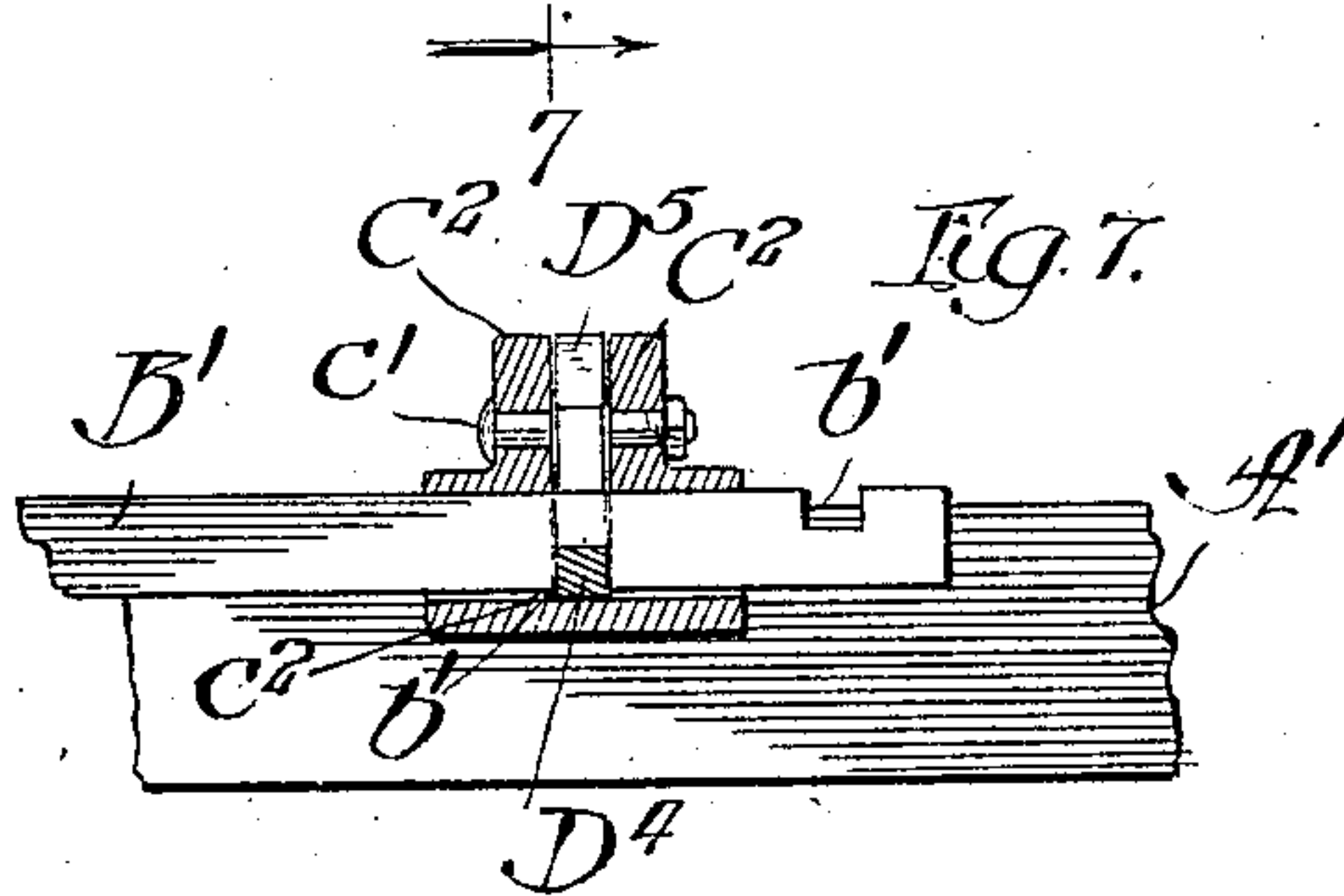
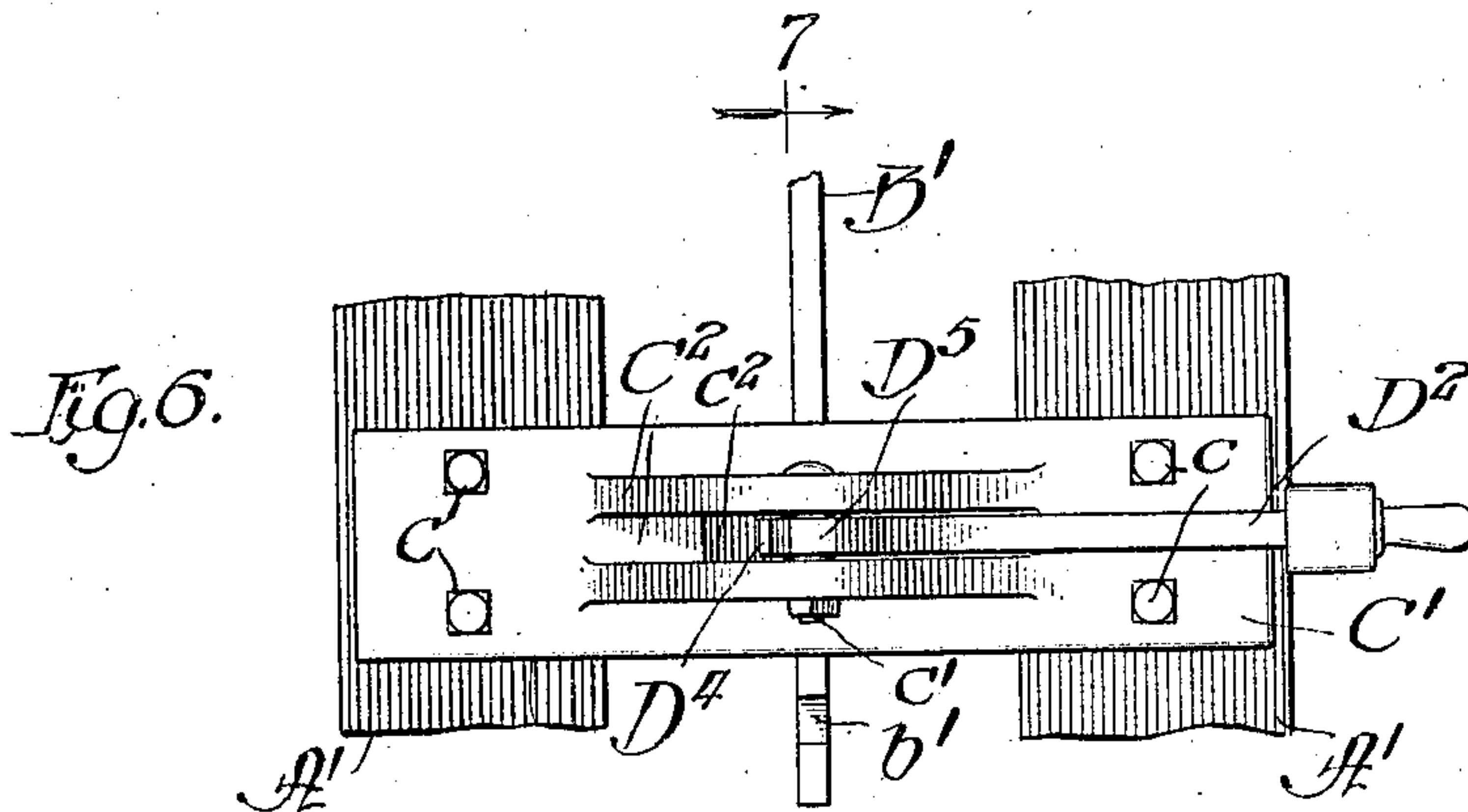
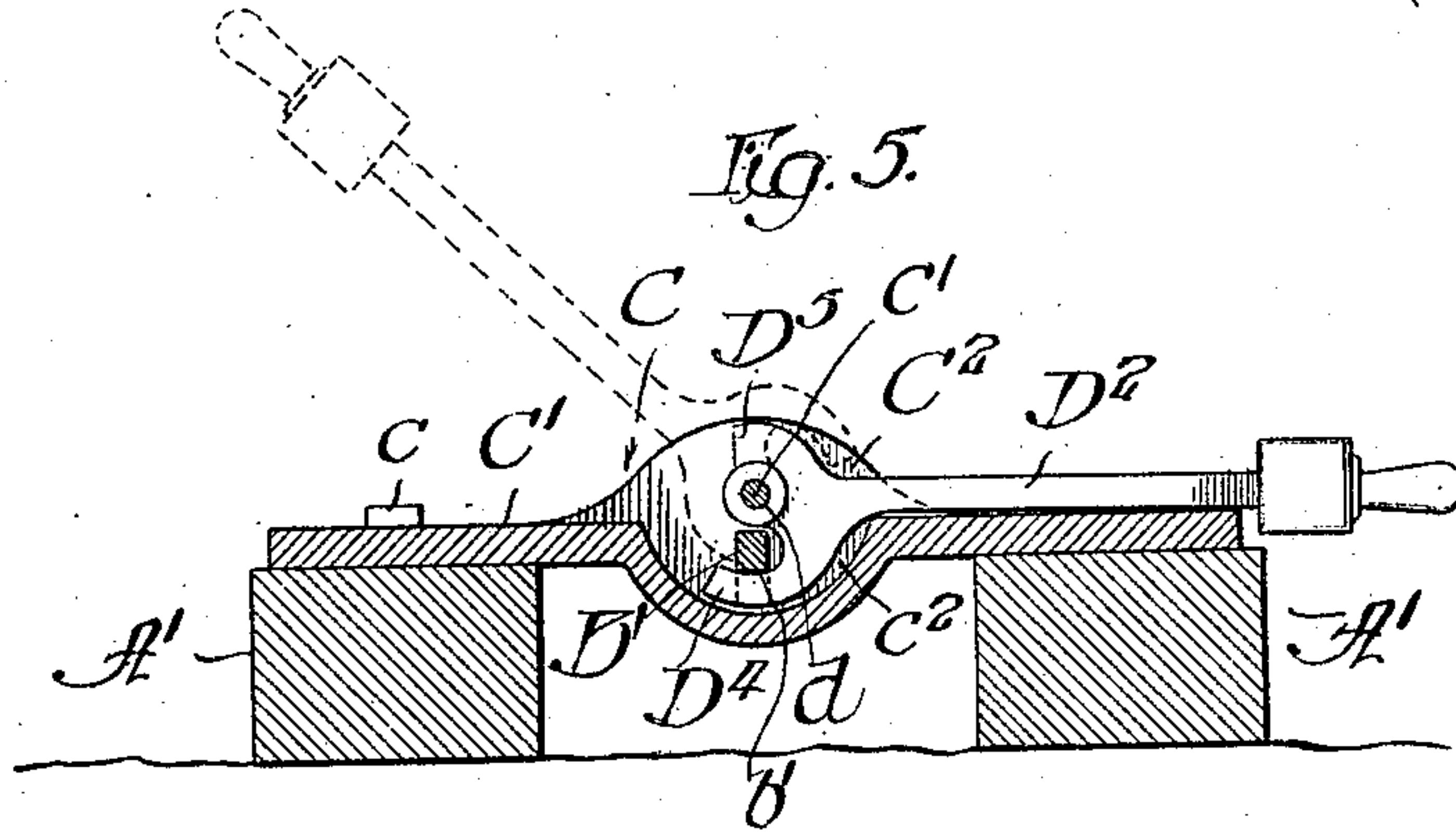
Inventor  
James B. Latimer  
by Cole Brown  
his Atty.

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2 SHEETS—SHEET 2.



Witnesses:  
J. H. Alford  
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James B. Latimer  
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# UNITED STATES PATENT OFFICE.

JAMES B. LATIMER, OF CHICAGO, ILLINOIS, ASSIGNOR TO ARTHUR D. CLOUD, FRANK M. PATTERSON, AND FRED W. RIZER, OF CHICAGO, ILLINOIS.

## SWITCH-POINT LOCK.

No. 877,096.

Specification of Letters Patent.

Patented Jan. 21, 1908.

Application filed October 26, 1906. Serial No. 340,683.

*To all whom it may concern:*

Be it known that I, JAMES B. LATIMER, a citizen of the United States, of Chicago, in the county of Cook and State of Illinois, have  
5 invented certain new and useful Improvements in Switch-Point Locks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings,  
10 and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in switch-point locks, and the invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claims.

The present invention relates to the general type of switch-point locks shown in my  
20 prior application for United States Letters Patent No. 337,094, filed October 2nd, 1906, and the object of the invention is to improve and simplify the construction of the device and lessen the cost thereof.

25 In the drawings:—Figure 1 is a top plan view of a switch-point lock embodying my invention, showing one rail of the adjacent track and one of the switch-points. Fig. 2 is a vertical section, taken on line 2—2 of Fig. 1. Fig. 3 is a transverse section, taken on line 3—3 of Fig. 2. Fig. 4 is a perspective view of the outer end of the locking rod.  
30 Fig. 5 is a longitudinal, vertical section of a modified form of lock. Fig. 6 is a plan view thereof. Fig. 7 is a transverse section, taken on line 7—7 of Fig. 6. Fig. 8 is a perspective view of one form of locking lever.

As shown in the drawings, A designates one of the switch-points, B a locking-rod  
40 attached at its inner end to said switch-point, and C designates, as a whole, a stationary locking device located at one side of the track and with which the outer end of the locking-rod B has interlocking connection for the purpose hereinafter set forth.  
45 Said locking rod is fixed at its inner end to a lug *a* extending inwardly from the bar *a*<sup>1</sup> attached to the switch-point. The rod is provided at its outer end with notches *b b*.  
50 In the form of device at present under consideration, the locking-rod is disposed horizontally flatwise and the said notches *b b* are arranged on opposite side margins thereof

in offset relation. This arrangement, however, may be varied within the scope of  
55 my present invention. The locking device which coöperates with said rod B is designated as a whole by C and comprises a suitable base C<sup>1</sup> that extends across and is supported on the extended ends of two adjacent  
60 ties A<sup>1</sup> A<sup>1</sup> and is fastened to said ties by bolts or spikes *c*. Said base is disposed at a right angle to the locking-rod B. The said casting is provided near its longitudinal center with two raised ribs C<sup>2</sup> C<sup>2</sup> between which  
65 is hinged a lever D, said lever being hinged to a pivot pin or bolt *c*<sup>1</sup> extending through registering openings in said ribs and the lever. The said base is centrally depressed on its under side to constitute the lower wall  
70 of a chamber *c*<sup>2</sup> which receives the inner end or head of said lever, the side walls of which chamber consist of the said ribs C<sup>2</sup> C<sup>2</sup>. The side walls of said chamber are provided with registering openings through which ex-  
75 tends the horizontal locking-rod B and in which openings the rod has sliding engagement.

The lever D is provided at its inner end or head with two locking detents D<sup>1</sup> D<sup>1</sup> which  
80 are separately designed for engagement with the notches *b b* of said locking-rod; one of said detents engaging one of the notches in one longitudinal position of the locking rod and the other engaging the other notch in  
85 another position of said rod. The head of the lever on which said detents D<sup>1</sup> are formed, taken in connection with the lever, gives to the whole a general T-shape, the arms thereof extending at right angles to the lever.  
90 The pivot pin or bolt *c*<sup>1</sup> is located slightly above the level of the upper face of the base-plate, so that when the lever is at one extreme position of its throw, lying on the base-plate, it inclines downwardly and out-  
95 wardly. When the lever occupies one of its extreme positions, as shown in full lines in Fig. 2, one of the detents D<sup>1</sup> is engaged with one of the notches *b* of the lock-rod B. In this position it may be assumed that the  
100 switch is locked closed. If it be desired to lock the switch open, the lever D is swung upwardly over its center to the position shown in dotted lines in Fig. 2. The lever is arrested in this position, which may be  
105 termed a "lock-set" position, by reason of



the fact that the lower detent  $D^1$  is brought into contact with the unnotched portion of the locking-rod. When, however, the switch points are shifted to open the switch and the locking-rod is thereby moved endwise, the said lower arm of the lever will enter the notch  $b$  on that side of the rod, thereby automatically locking the switch in the position into which it has been moved. It is obvious that the reverse operation of the device will result in automatically locking the switch-points in the other position thereof. It will be observed that when either of the locking detents  $D^1$  is engaged with one of the notches of the locking-rod  $B$  it is laterally supported by the side walls  $C^2$  of the recess in which the lever is pivoted, thereby avoiding liability of lateral stress brought on said detent from breaking or distorting the same.

In Figs. 5 to 8, inclusive, I have shown a form of device differing from that shown in Figs. 1 to 4, inclusive, both with respect to the shape of the head of the lever  $C$  and to the arrangement of the locking-rod. In this construction the base-casting  $C$ , and the manner of pivoting the lever thereto is the same as that shown in the other figures, and like parts bear the same reference letters. In the latter form of the device, the locking-rod  $B^1$  is arranged vertically edgewise and the notches  $b^1$  open upwardly and downwardly instead of laterally, as in the previously described construction. The head of the locking lever, designated as a whole by  $B^3$  is provided with detents  $D^4$   $D^5$ , located on opposing sides of the pivot aperture  $d$  of said head. The detent or dog  $D^5$  is adapted to pass under and engage the lower or downwardly opening notch  $b^1$  of the locking-rod and is, therefore, made of some length and is curved downwardly and forwardly from the head. The other detent  $D^4$  extends laterally from the head and is adapted to engage the upper notch  $b^1$  of the lock-rod  $B$ .

As shown in full lines in Fig. 5 the dog or detent  $D^4$  is engaged with the lower notch of the locking-rod, in which position it may be assumed that the switch-lock is locked closed. In dotted lines the lever is shown as thrown over and arrested in its "lock-set" position with the forward edge of the detent  $D$  engaging the unnotched side of the lever, it being held in this position until said rod is moved endwise a distance to bring the upper notch  $b^1$  opposite the detent, whereupon the lever will drop to its lowermost position opposite to that shown in Fig. 5 and lock the switch-points in the position into which they have been shifted. When the lever assumes a "lock-set" position opposite to that shown in Fig. 5, the end of the detent  $D^4$  is engaged with the unnotched face of said rod. In this construction, as in the previously described construction, the

dogs  $D^4$   $D^5$  are supported from lateral stress by the side walls of the chamber which said head occupies.

The head  $D^3$  of the lever shown in Figs. 5 to 8, inclusive, may be made an integral part of the lever or may be made separate therefrom and attached thereto, as indicated in Fig. 8.

In some instances the switch-points may be locked in one position only, to wit,—the main track position. In such event the lever will be thrown over to its "lock-set" position to automatically fall into its locking position when the switch-points are closed to the main track position.

It is apparent that my improved switch-point lock is exceedingly simple in its construction and efficient in operation and may be readily installed. Furthermore, by reason of its being made of few parts, the device is economical to manufacture and maintain.

I claim as my invention:—

1. A switch point lock comprising, in combination with an endwise movable locking rod adapted for connection with switch points and provided at its outer end with longitudinally separated locking devices, a swinging lever, and devices carried by said lever adapted for separate engagement with the locking devices of the rod for the purpose set forth.

2. A switch point lock comprising, in combination with an endwise movable locking rod adapted for connection with switch points and provided at its outer end with longitudinally separated locking devices, a swinging lever, and devices carried by said lever adapted for separate engagement with the locking devices of the rod for the purpose set forth, the locking devices of one of said parts, to wit, the rod and lever being offset relatively to each other.

3. A switch point lock comprising, in combination with an endwise movable locking rod adapted for connection with switch points and provided at its outer end with longitudinally separated notches, a swinging lever, and detents carried by said lever adapted for separate engagement with said notches.

4. A switch point lock comprising, in combination with an endwise movable locking rod adapted for connection with switch points and provided at its outer end with longitudinally separated notches, a swinging lever, and detents carried by said lever, one adapted in one limit of the throw of the lever to engage one of said notches and the other adapted in the other limit of the throw of the lever to engage the other notch.

5. A switch point lock comprising, in combination with a locking rod adapted for connection at one end with switch points and provided at its other end with longitudinally separated notches, of a locking device com-



prising a base having an opening through which said roll slides endwise, a lever pivoted to said base and detents carried by said lever and adapted for separate engagement 5 with said notches.

6. A switch point lock comprising, in combination with a locking rod adapted for connection with switch points and provided at its outer end with longitudinally separated 10 notches, of a rotating head provided with detents adapted to separately engage said notches for the purpose set forth, and means for rotating the head.

7. In a switch-point lock, the combination 15 with the endwise movable lock rod, a lever

carrying a detent adapted to engage a notch or shoulder on the lock rod, means whereby the lever may be set in a lock-set position and means whereby the lever falls to its locking position upon endwise movement of said 20 locking rod.

In testimony that I claim the foregoing as my invention I affix my signature in the presence of two witnesses, this 23d day of October, A. D. 1906.

JAMES B. LATIMER.

Witnesses:

WILLIAM L. HALL,  
GEORGE R. WILKINS.