

No. 687,922.

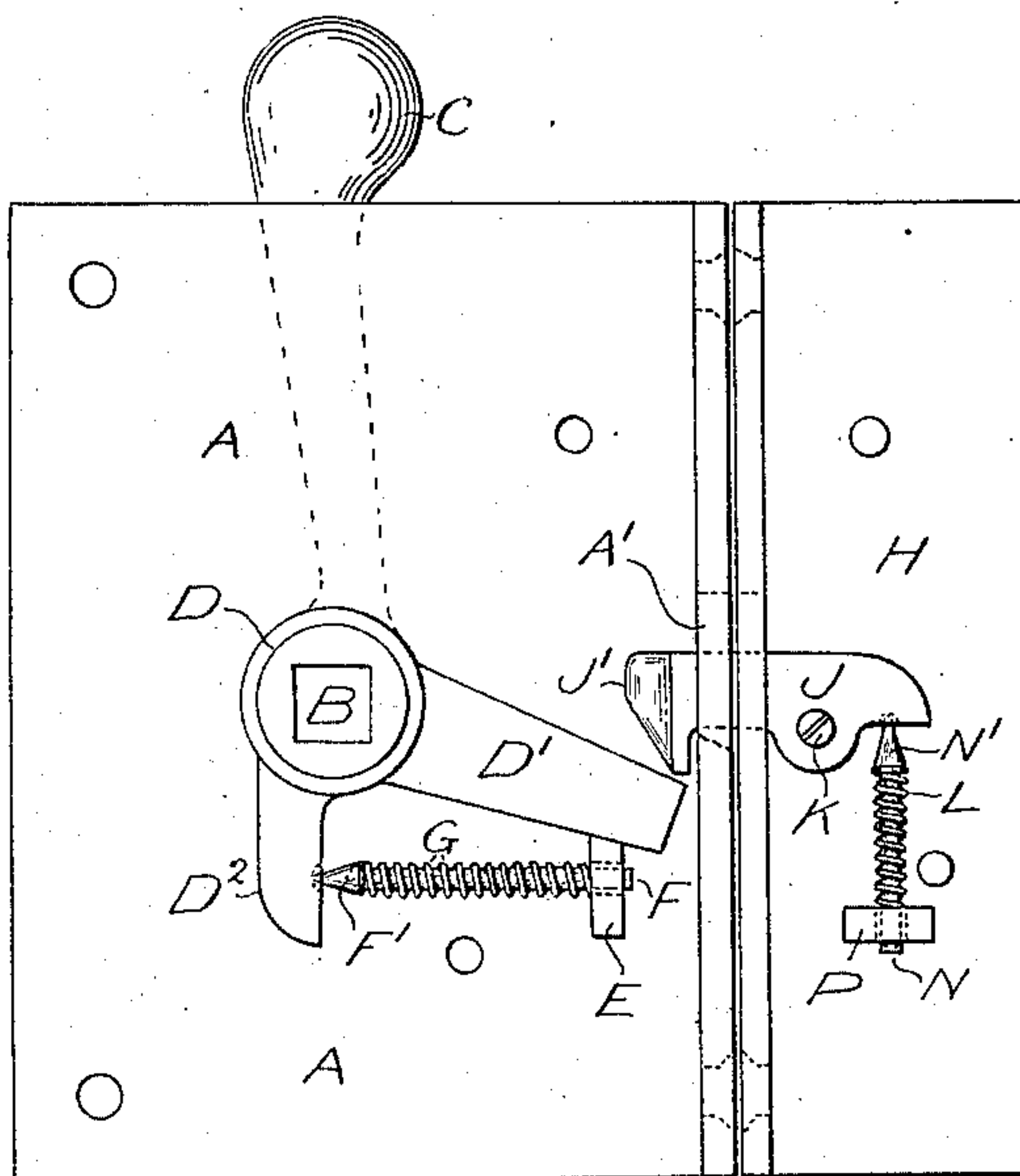
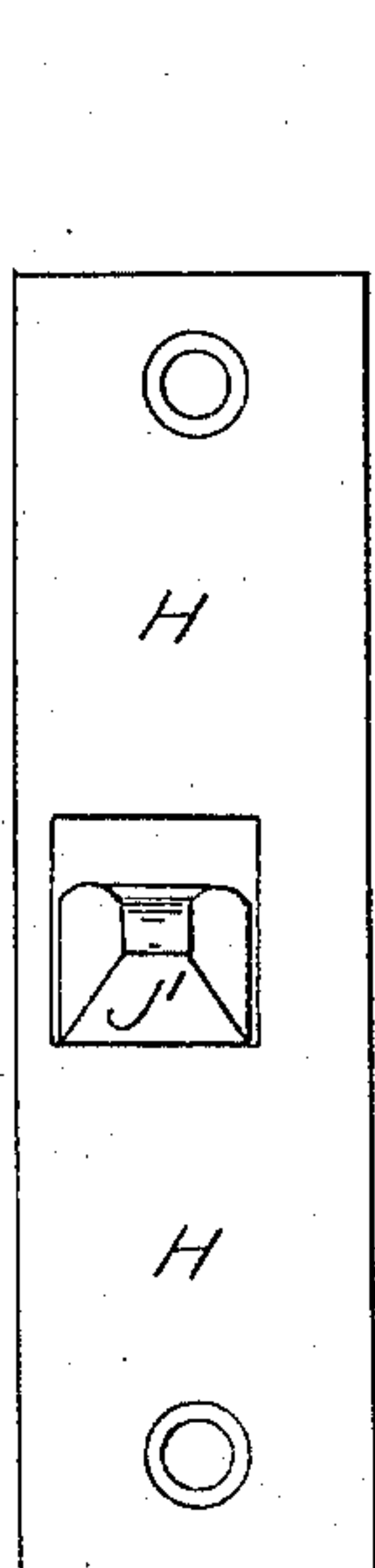
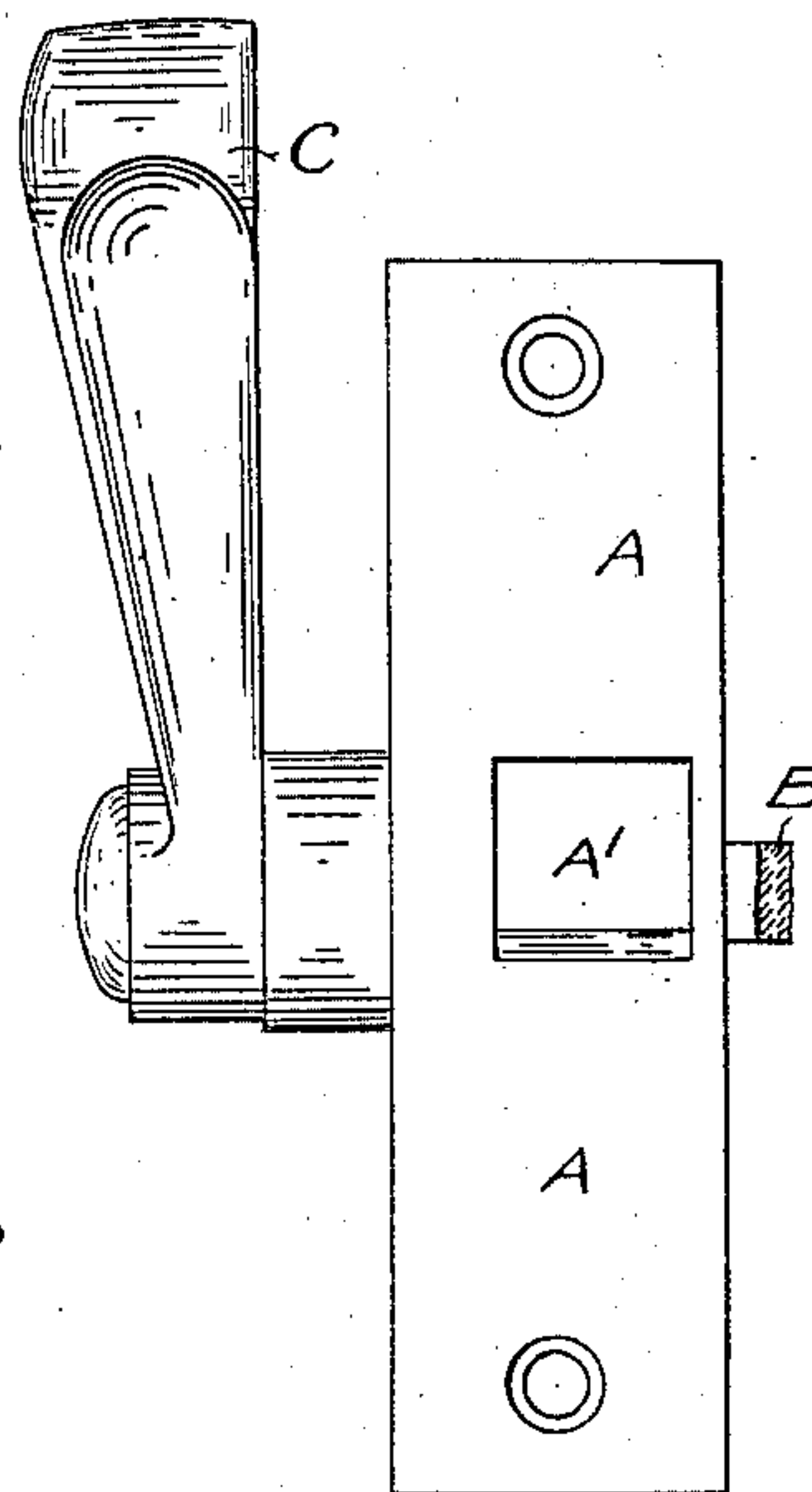
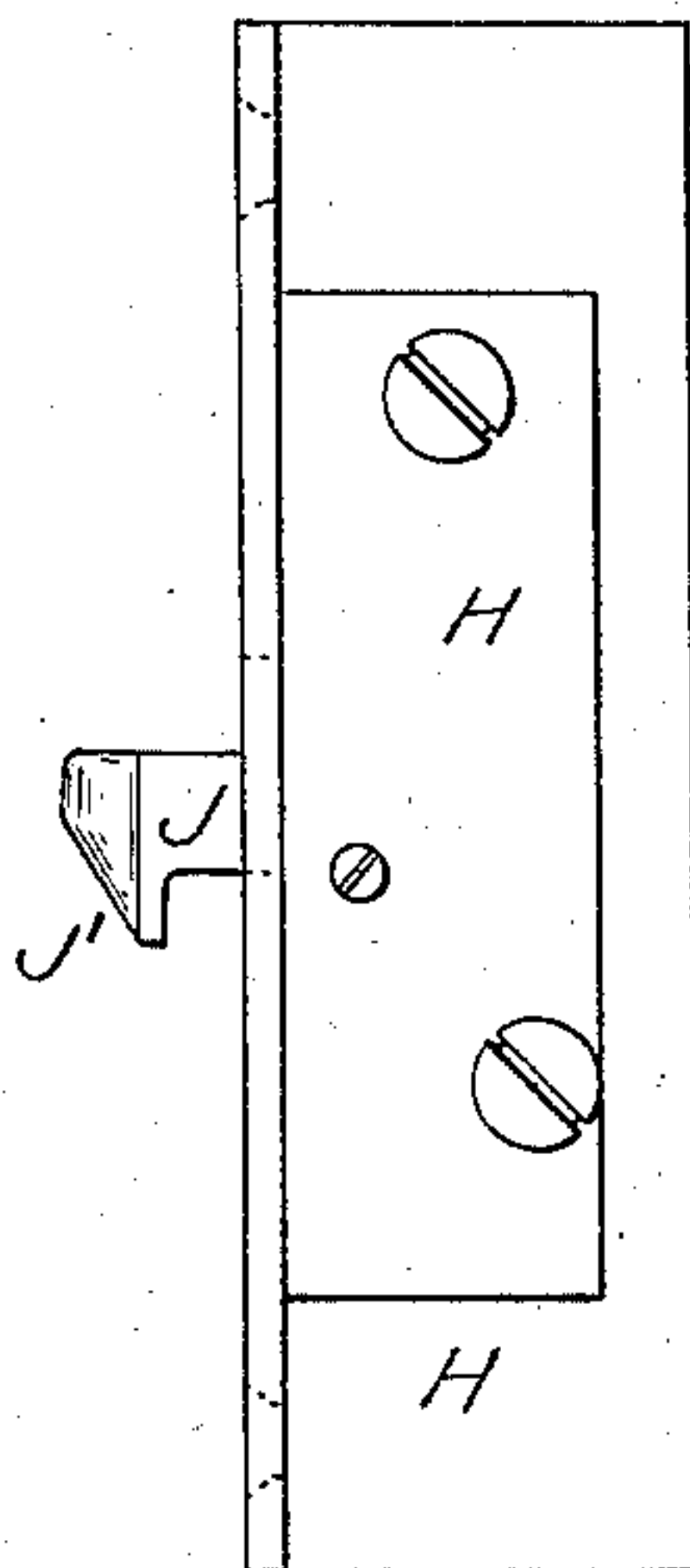
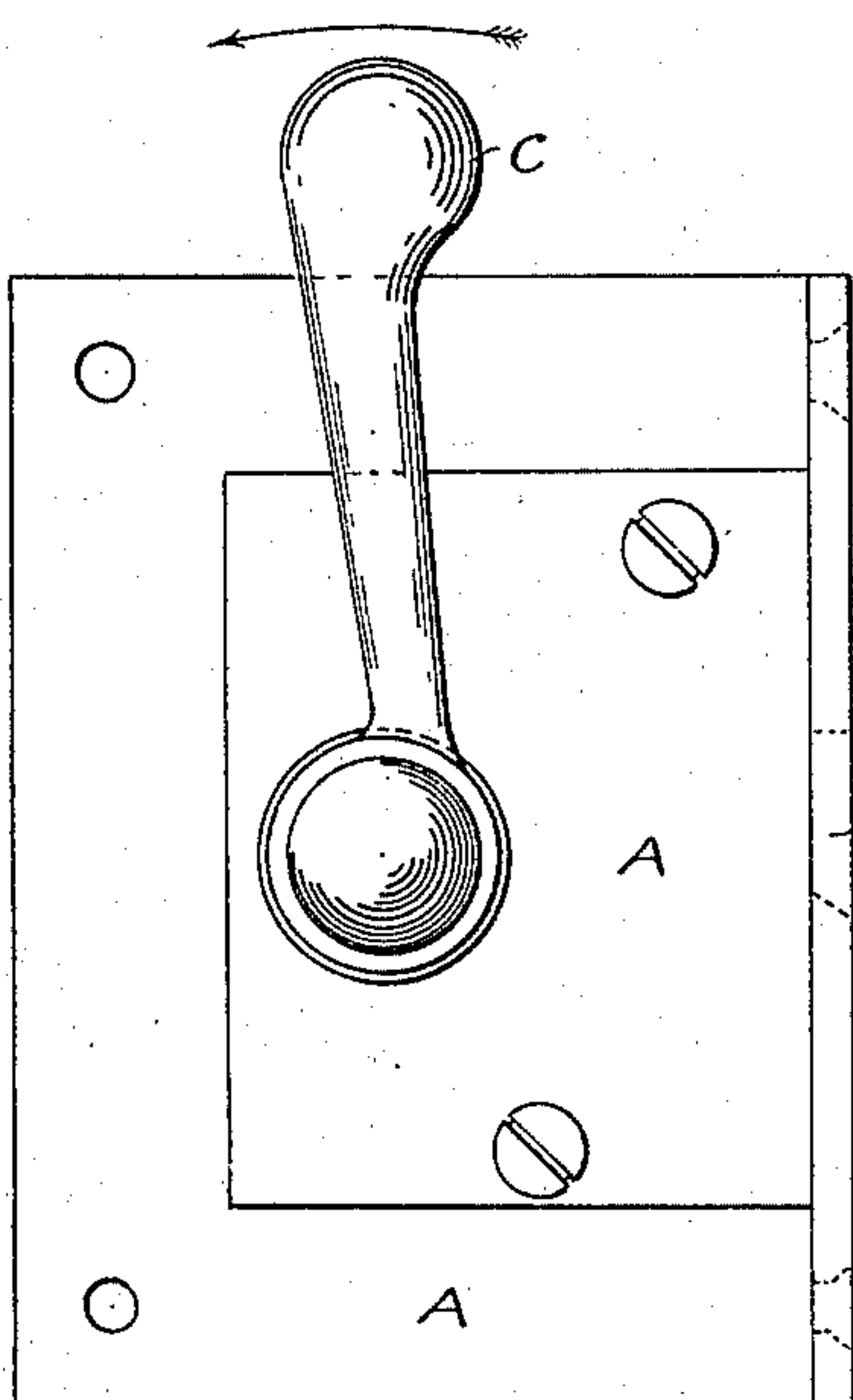
Patented Dec. 3, 1901.

W. K. KAYE.

LATCH FOR SLIDING DOORS.

(Application filed Apr. 30, 1901.)

(No Model.)



WITNESSES: 0

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Document

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UNITED STATES PATENT OFFICE.

WALTER KELITA KAYE, OF LEEDS, ENGLAND.

LATCH FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 687,922, dated December 3, 1901.

Application filed April 30, 1901. Serial No. 58,144. (No model.)

To all whom it may concern:

Be it known that I, WALTER KELITA KAYE, a subject of the King of Great Britain and Ireland, whose postal address is South Accommodation road, Leeds, in the county of York, England, have invented certain new and useful Improvements in and Relating to Locks or Latches for Sliding Doors, (for which application for provisional protection has been made in Great Britain, numbered 7,087, dated April 4, 1901,) of which the following is a specification.

The invention consists in the features and combinations of parts hereinafter described, and particularly pointed out in the claim.

In describing my invention in detail reference is made to the accompanying sheets of drawings, in which—

Figure 1 represents a front view of a casing, showing one of the handles in its normal position. Fig. 2 is a front elevation of another casing, fitted with a lock or latch bolt. Figs. 3 and 4 are "fore-end" views of the striking-plate and lock or latch plate casings, respectively. Fig. 5 is a view showing the interior of the two casings with the lock or latch bolt of one casing engaged with the face or fore end of the other casing.

In carrying out my invention I secure to a sliding door a casing A, which may be termed the "striking-plate" casing, through which passes a spindle B, preferably square, and supported in a manner as hereinafter described, and on either or both ends of said spindle outside the casing A is attached a handle C, by which the spindle B may be operated to some extent in a rotary direction. The square spindle B passes through a square hole formed in the boss of a two-armed lever D' and D², made circular at D on each side of the boss for supporting the said lever in the walls of casing A in such a manner that the spindle and lever may be turned in an axial direction. The lever-arms D' and D² are arranged at a suitable angle to each other, and the lever is held in a normal position by placing between the lever-arm D² and fixed flanged support E a guiding-spindle F, provided with an expanded and conical end F', between which and the flanged support E is a com-

pressed spiral spring G, applied for the purpose of keeping the lever-arm D' below or clear of the lock or latch bolt opening A', formed in the face or fore end of the striking-plate casing, as shown by Fig. 5.

To the door-frame or standing pillar of the ordinary description is fixed what I term a "lock" or "latch" casing H, provided with a lock or latch bolt J, supported on a stud K as fulcrum and of such length that one end of the said bolt protrudes beyond the fore end of said casing, and held in its normal position, as shown by Fig. 5, by a spiral spring L, mounted on a guiding-spindle N, provided with an expanded conical-pointed end N', between which and the stop or flange P the said spring is compressed.

By mounting and holding the lock or latch bolt J in the position shown and forming the end J' of said bolt at an inclination to the face or fore end of the striking-plate casing A on closing the sliding door, the inclined end J' of lock or latch bolt on coming in contact with the bottom edge of opening A', formed in the face or fore end of striking-plate casing A, causes the end J' of said bolt to be raised, so as to enter the before-mentioned opening A'. The compressed spring L, acting on the lock or latch bolt J, depresses the same in the direction for the hook end to automatically engage with the fore end of the striking-plate casing A, thus securing the door.

When it is desired to open the sliding door, the handle C at one or either side of the door is moved or pressed in the direction for opening the door, as shown by arrow in Fig. 1, the spindle B is turned to some extent on its axis, and the lever-arm D' brought into contact with the hook end J' of lock or latch bolt J in a manner so as to raise same clear of the bottom of opening A' in the face or fore end of casing A, thereby releasing the fastening and allowing the door to be slid in the direction of pressure applied to a handle C. On closing the door, by applying pressure to a handle C in the direction opposite to that shown by the arrow in Fig. 1 it will be evident the lever within the casing A will remain, as shown, in its normal position, thus allowing the end J' of lock or latch bolt J to enter

the opening A' through the face or fore end of casing A.

What I claim as my invention is—

In combination with a pivoted latch-bolt J,
5 a spring for pressing the same, a pivoted lever having an arm D' to engage the latch and a second arm D², a support E and a spring interposed between said support and the arm

D², said support E being engaged by the arm D', substantially as described. 10

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

WALTER KELITA KAYE.

Witnesses:

WM. PREST,

CLIFFORD SPEIGHT.