

No. 721,385.

PATENTED FEB. 24, 1903.

G. B. PICKOP.
SASH FASTENER AND LOCK.
APPLICATION FILED OCT. 9, 1902.

NO MODEL.

Fig. 1.

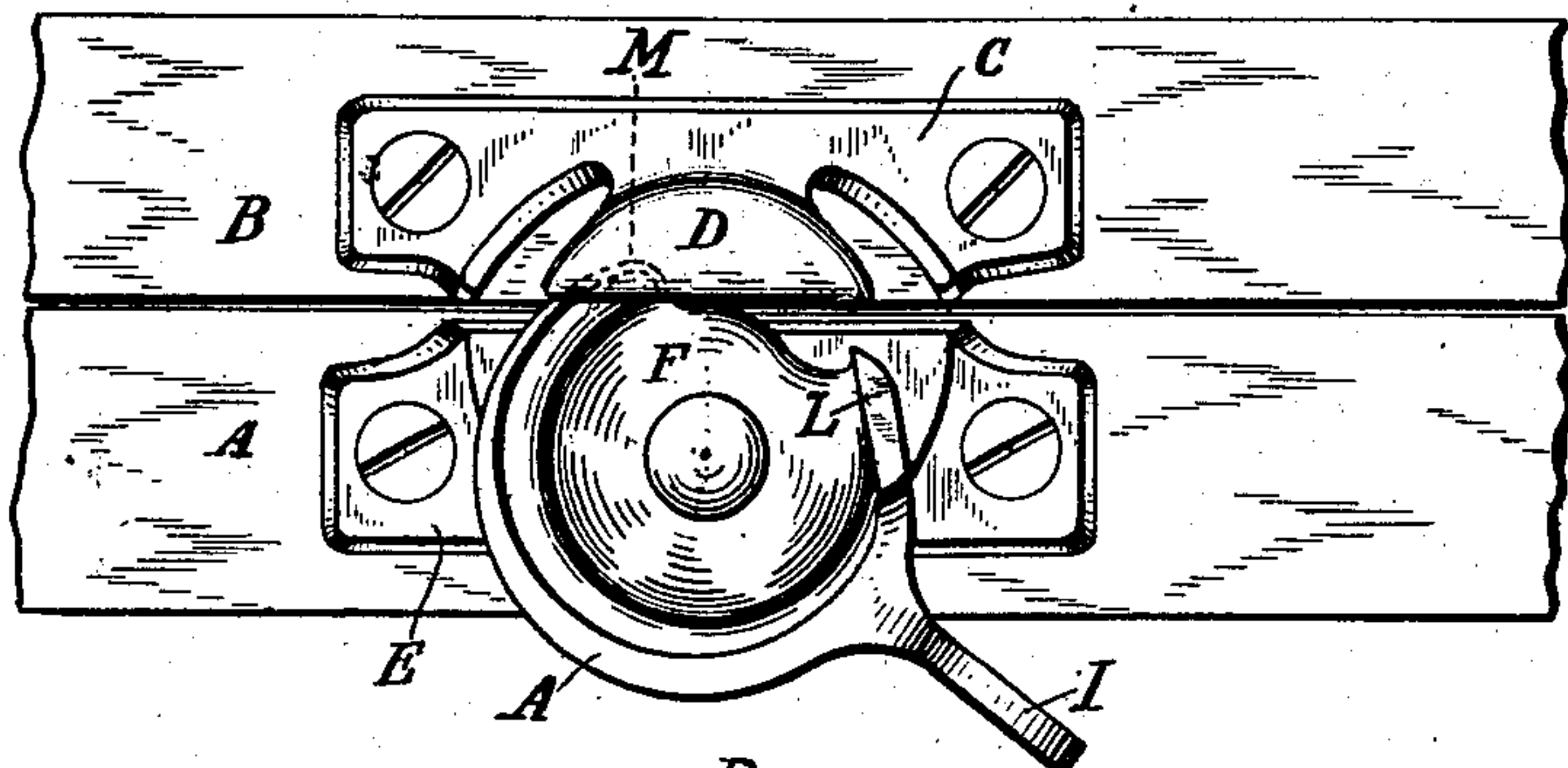


Fig. 2.

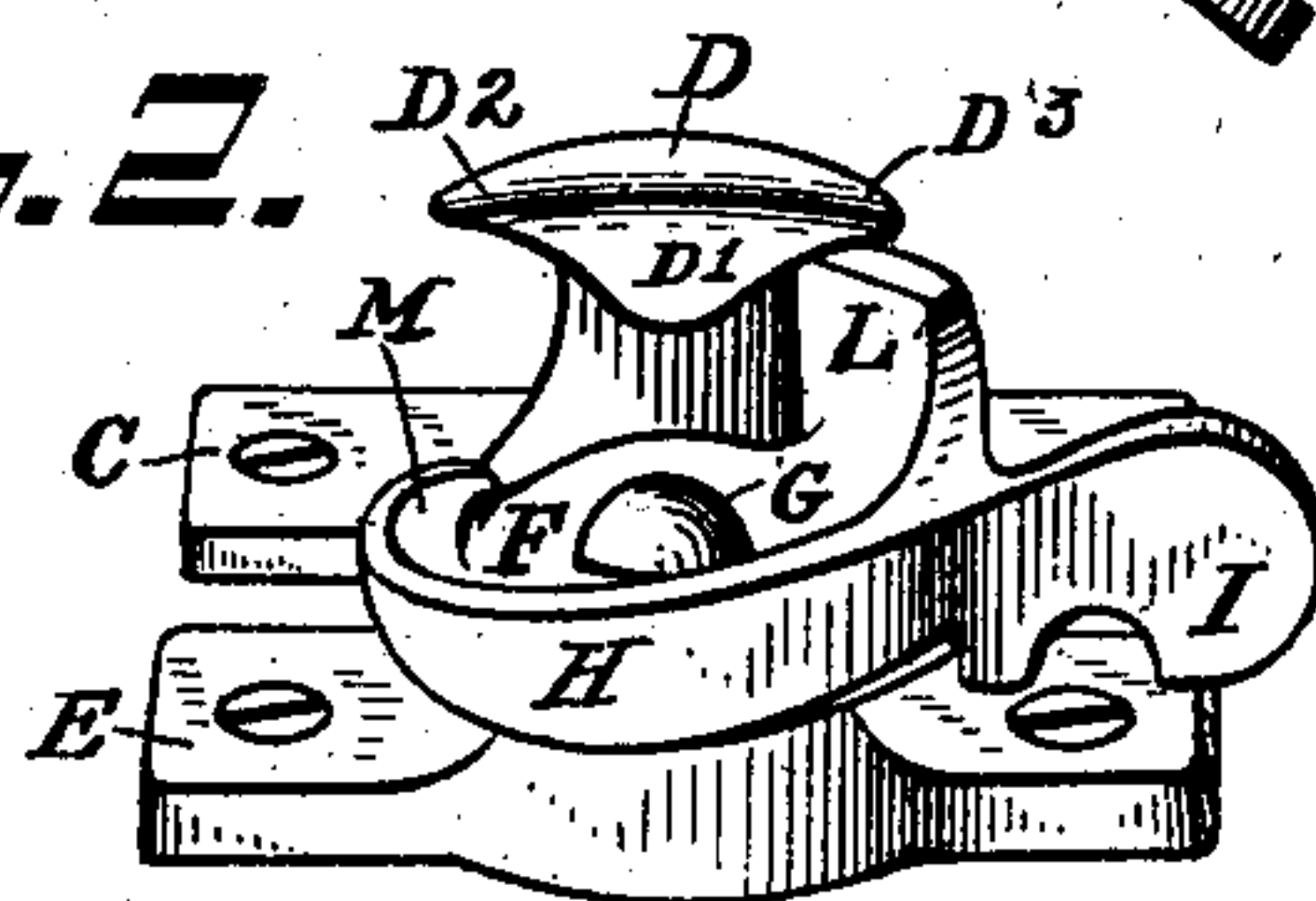


Fig. 3.

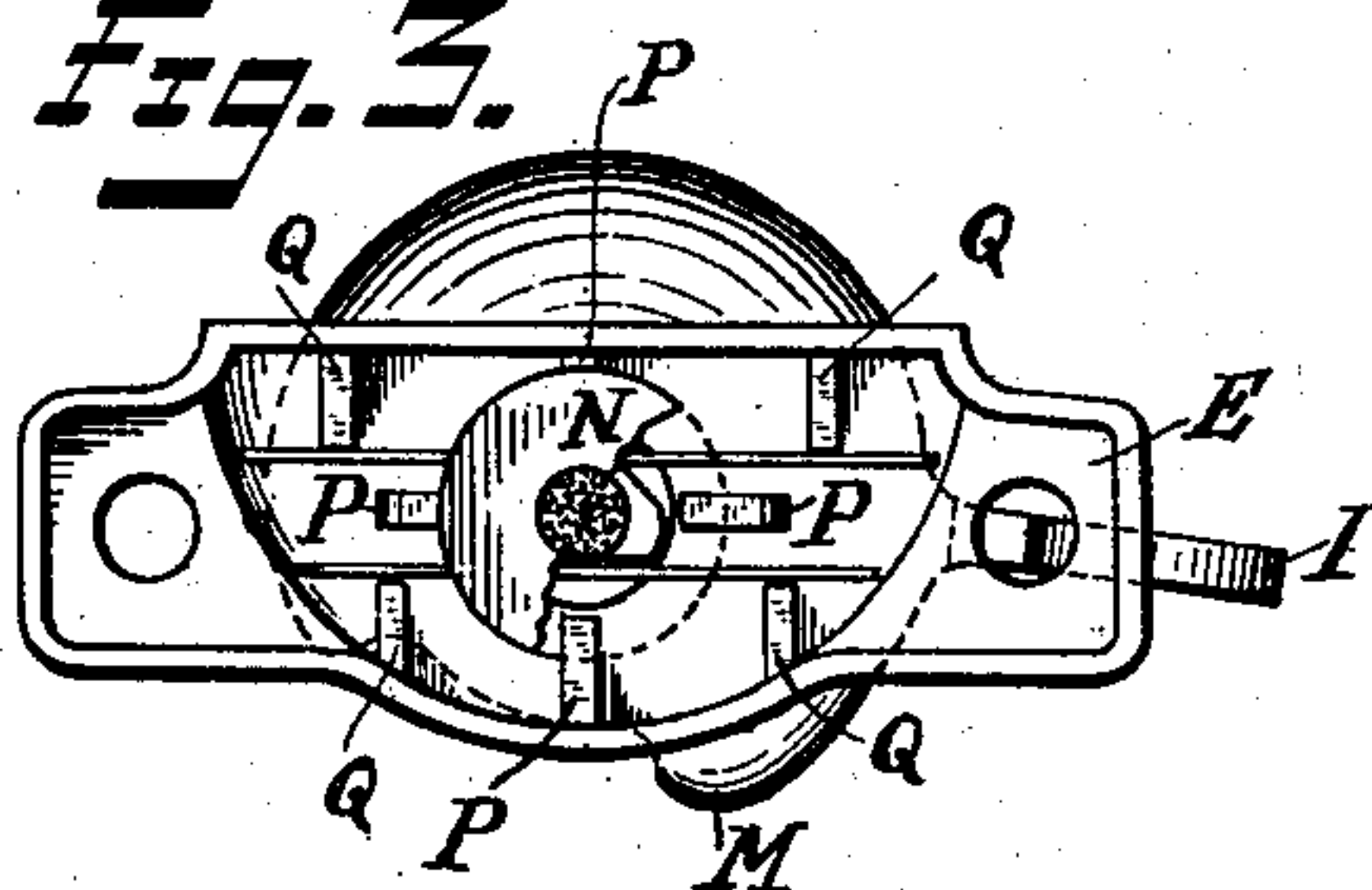


Fig. 4.

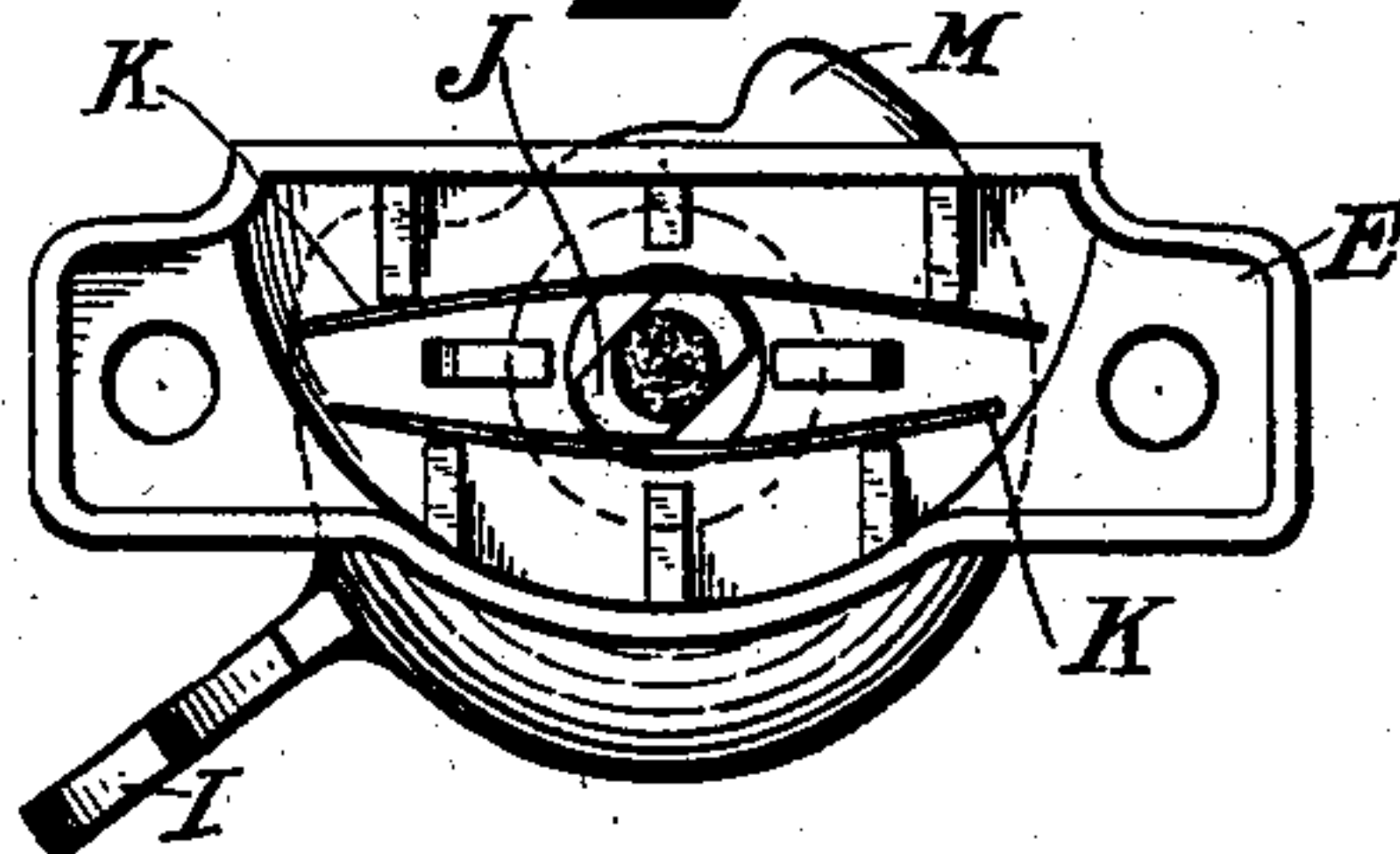
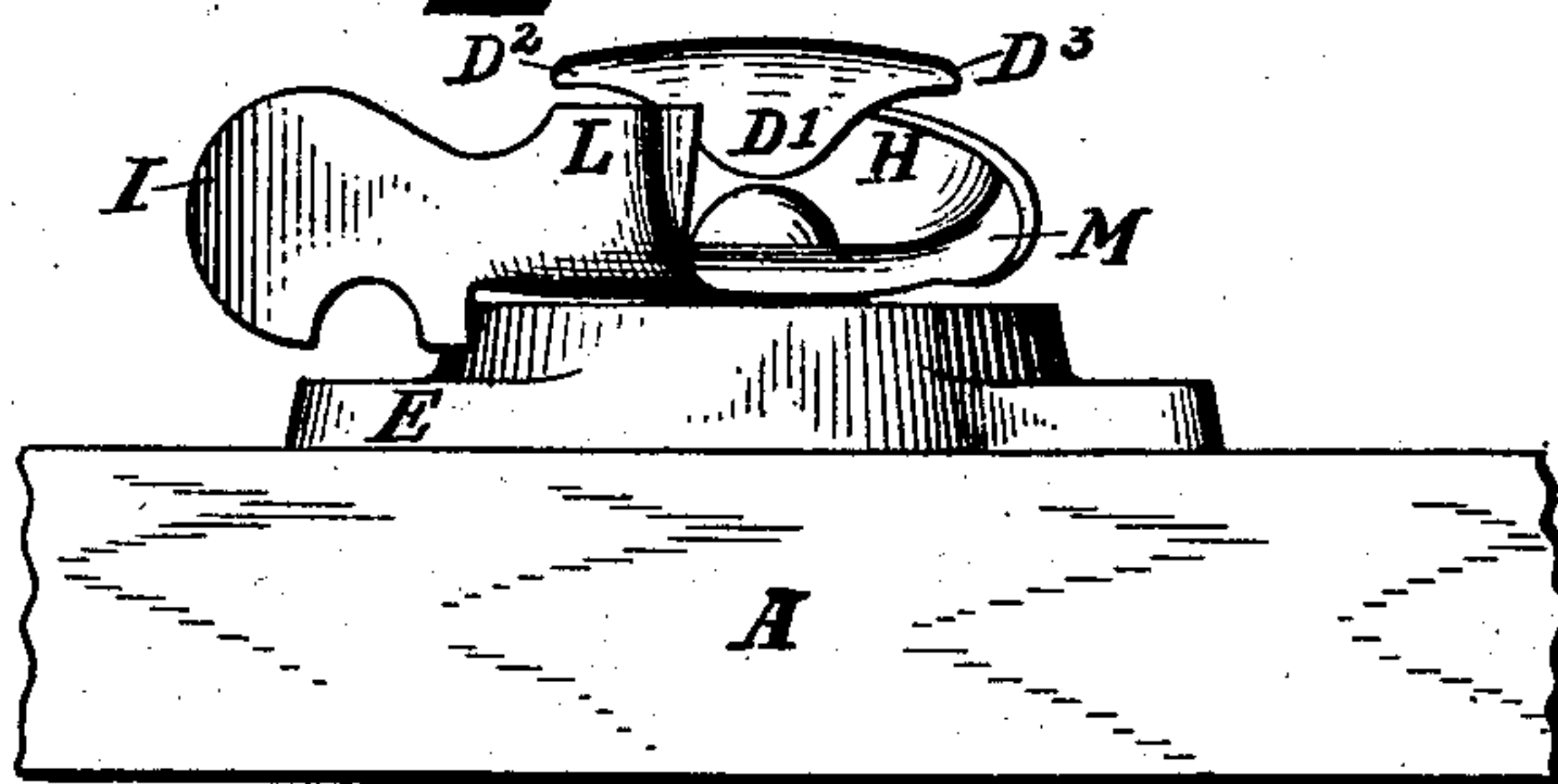


Fig. 5.



WITNESSES:

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SASH FASTENER AND LOCK.

SPECIFICATION forming part of Letters Patent No. 721,385, dated February 24, 1903.

Application filed October 9, 1902. Serial No. 126,395. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. PICKOP, a citizen of the United States, residing at New Britain, Hartford county, Connecticut, have
5 invented certain new and useful Improvements in Sash Fasteners and Locks, of which the following is a full, clear, and exact description.

My invention relates to hardware, and particularly to sash fasteners and locks.

The object of this invention is to provide in such articles certain features of construction whereby when the windows are closed they will be automatically locked in case the
15 operator fails to throw the fastening device into action in the usual manner.

This automatic locking device is simple, durable, and effective.

Other advantages will be apparent to the
20 mechanic skilled in the art from the drawings and from reading the following specification setting forth the construction of the preferred form of the invention.

In the drawings, Figure 1 is a plan view of
25 a fastener embodying my invention and portions of a window-sash in such a position that the window may be opened. Fig. 2 is a perspective view of a fastener, the parts being in the position which they will automatically
30 assume when the window is closed. Fig. 3 is a view of the under side of one member of the fastener, a washer being partly broken away. Fig. 4 is a similar view of the same member with the washer removed, the parts
35 being shown in a different position. Fig. 5 is a front elevation of the fastener when in the normal locked position.

A represents the sash of the lower window,
40 and B represents the sash of the upper window.

Upon the sash B is secured by screws or other fastening devices the base-plate C, which carries a keeper D. This keeper D is somewhat in the form of a hook having a
45 downwardly-projecting bill D' and lateral extensions or shoulders D² and D³ for the purpose hereinafter described.

E is a base-plate screwed or otherwise fastened to the sash A and supporting the locking device F, which is capable of manual operation as well as automatic. This may be

conveniently termed a "rotary bolt." The bolt F is pivotally mounted, for example, by means of a stud G.

H is a helicoidal cam-like flange, preferably located at the edge of the bolt F.

I is a suitable handle by which the bolt may be rotated.

Thus far described, save for the extensions D² D³ on the keeper, the parts are well known and
60 operate as follows: The windows are closed and the operator may by swinging the handle I cause the cam H to project back of the bill D' of the keeper. This movement not only causes the windows to be drawn together, but the
65 upper edge of the cam H is wedged under the keeper, so as to tightly lock the windows in the closed position. A reverse movement of the handle I will throw the cam H out of engagement with the keeper D. Heretofore it
70 has been necessary for the operator to manually operate the fastening device in order to lock the window; but by means of my improvement it is automatically locked at all times, save when the windows are opened or
75 the operator desires to open a window. By giving a slight movement to the bolt F the window may be opened, whereupon the parts will automatically return to their original position, when they are ready to act automatically as a lock when the window is closed.

That this construction may be more fully understood reference is made to the drawings, from which it may be seen that the lower side of the bolt is provided with a sleeve J,
85 having, preferably, two opposite faces flattened off. The flattened faces of the sleeves are so arranged that the flat springs K K' bear flatwise against them when the parts are in the position indicated in Fig. 2. In this
90 position a locking-horn L will stand under the shoulder D³ of the keeper D. The lower end of the cam H will then stand slightly clear of the shoulder D². Obviously the windows are locked, because the locking-horn L
95 stands under the keeper-plate or an extension thereof. When the operator desires to open a window, the bolt F is swung so that the horn L will stand clear of the keeper, as in Figs. 1 and 4, in which position it may be
100 caused to dwell. For this purpose the opposite corners of the hub J are flattened, as

shown in Figs. 3 and 4. In this position the springs K K' are under slight tension and will hold the bolt F in this position until the window is raised. The raising of the window 5 causes the cam-point M to strike underneath the shoulder D², (see Fig. 1,) so that the bolt will be rotated to the position of the bolt in Fig. 2, the springs K K' bearing against the flattened side of the hub J. It will be observed, however, that the horn L will be 10 raised above the shoulder D³ before the cam-point M strikes the shoulder D², so that although the position of the horn L is shifted when the point M does strike it will not be 15 shifted until it has cleared the keeper-plate. Hence the window may be freely raised to any desired height. When the window is closed, the cam-point M will clear the shoulder D²; but the lower surface of the locking-horn L 20 will engage with the shoulder D³. This face of the horn L is beveled, as best seen in Fig. 5, so that this engagement will cause the slight rotation of the bolt F in opposition to the tendency of the springs K K' until the 25 end of the horn L has cleared the shoulder D³, whereupon the springs will automatically throw the locking device back to its normal position, in which the horn L stands under the shoulder D³ of the keeper, as shown 30 in Fig. 2. The cam-point M and shoulder D² act as a setting device when actuated by the springs K K'. It is apparent that in this manner the window is automatically locked when closed, and it requires no manual act, 35 save the lowering of the window, to accomplish it. Should the operator forget to throw the fastening device around, so as to cause the cam H to come into action, he is provided, nevertheless, with a safety-guard. 40 It should be understood that the preferable and most effective method of fastening the windows is to employ the helicoidal cam H; but since it is a common thing for people to forget to manually lock their windows the 45 addition of this safety device provides an effective automatic lock in such cases.

The various details of construction may be modified in a variety of ways without departing from the spirit and scope of my invention. For example, one spring might be employed instead of two. 50

The parts may be assembled in a variety of ways, one method being illustrated in which the pivot-stud G is riveted at its lower end against a washer N. This not only affords a 55 shoulder on which to hold the rivet, but may also extend laterally enough to hold the springs K K' in place. This is best seen in Fig. 3 and where the washer is shown dotted in Fig. 4. It will also be observed that supporting-lugs P are provided to carry the 60 washer N and prevent it from jamming the springs K K' or frictionally engaging the hub J, so as to retard its free movement. Suitable lugs Q Q are also provided to afford convenient 65 bearings for the ends of the springs K K'.

While it is preferable to have the corners

of the hub G beveled off to provide the dwelling-point, it is obvious that it is not necessary, since the operator could hold the fastening device in the position indicated in Fig. 1 pending the first part of the upward movement of the sash necessary to free the locking-horn L from engagement with the shoulder D³. It is, however, desirable in order that 70 the operator may first set the bolt F, then have both hands free to open the window. 75

In the construction herein shown the window is locked, provided it be closed, in all positions of the bolt except those which may 80 be intentionally and manually effected from that wherein the horn L first stands clear of the shoulder D³ and the position of "dwell." (Shown in Fig. 4.) From the positions between these points the window may be opened, 85 and the bolt will then automatically be in readiness to automatically lock the window when closed.

What I claim is—

1. A sash-fastener comprising, a keeper, 90 and a bolt cooperating with one part of said keeper, automatic setting means, and automatic locking means cooperating with another part of said keeper, said setting means being operated by separating the sash members so that said locking means will operate 95 when the sash members are brought together.

2. A sash-fastener comprising, a keeper, and a rotary bolt cooperating with one part of said keeper, a locking-horn carried by the 100 bolt cooperating with another part of said keeper and means for automatically operating the same.

3. A sash-fastener comprising, a keeper, and a rotary bolt cooperating with one part of said keeper, a locking-horn carried by the 105 bolt cooperating with another part of said keeper, a spring coacting with said bolt to throw said locking-horn into cooperation with the keeper. 110

4. A sash-fastener comprising, a keeper and a rotary bolt, extension-shoulders carried by said keeper, a locking-horn carried by said 115 bolt, a setting-cam for cooperating with one keeper extension to move the locking-horn, and a spring for actuating said bolt. 120

5. A sash-fastener comprising a keeper and a rotary bolt, a locking-horn carried by said bolt, a setting-cam for cooperating with 125 said keeper to move the locking-horn, and a spring for actuating said bolt to supplement the action of said cam. 130

6. A sash-fastener comprising, a keeper and a rotary bolt, an extension carried by said bolt, a flat spring coacting with a flattened 125 side of said extension or with a flattened corner thereof, means coacting with the keeper for moving the bolt, locking means carried by the bolt which may be brought into position by said moving means and into operation by 130 said spring.

7. A sash-fastener comprising, a keeper, and a bolt, manual means for operating the same, automatic means for locking said parts,

one of said means being adapted to cooperate with said keeper at all times.

8. A sash-fastener comprising, a keeper, and a rotary bolt cooperating with one part of said keeper, a locking-horn carried by the bolt cooperating with another part of said keeper, an extension-sleeve from said bolt, a spring coacting therewith to rotate said bolt and to throw said locking-horn into cooperation with the keeper.

9. A sash-fastener comprising, a keeper, a manually-operated bolt cooperating with one part of the said keeper, a second bolt comprising a locking-horn carried by said bolt

and adapted to cooperate with another part of the keeper, a portion of the bolt serving to set the locking-horn in a position to engage with the keeper when the lower sash is raised relatively to the upper sash, or vice versa, the operative part of the locking-horn being in a higher plane than the lower part of the bolt.

Signed at New York, N. Y., this 7th day of October, 1902.

GEORGE B. PICKOP.

Witnesses:

R. C. MITCHELL,
ROBT. S. ALLYN.