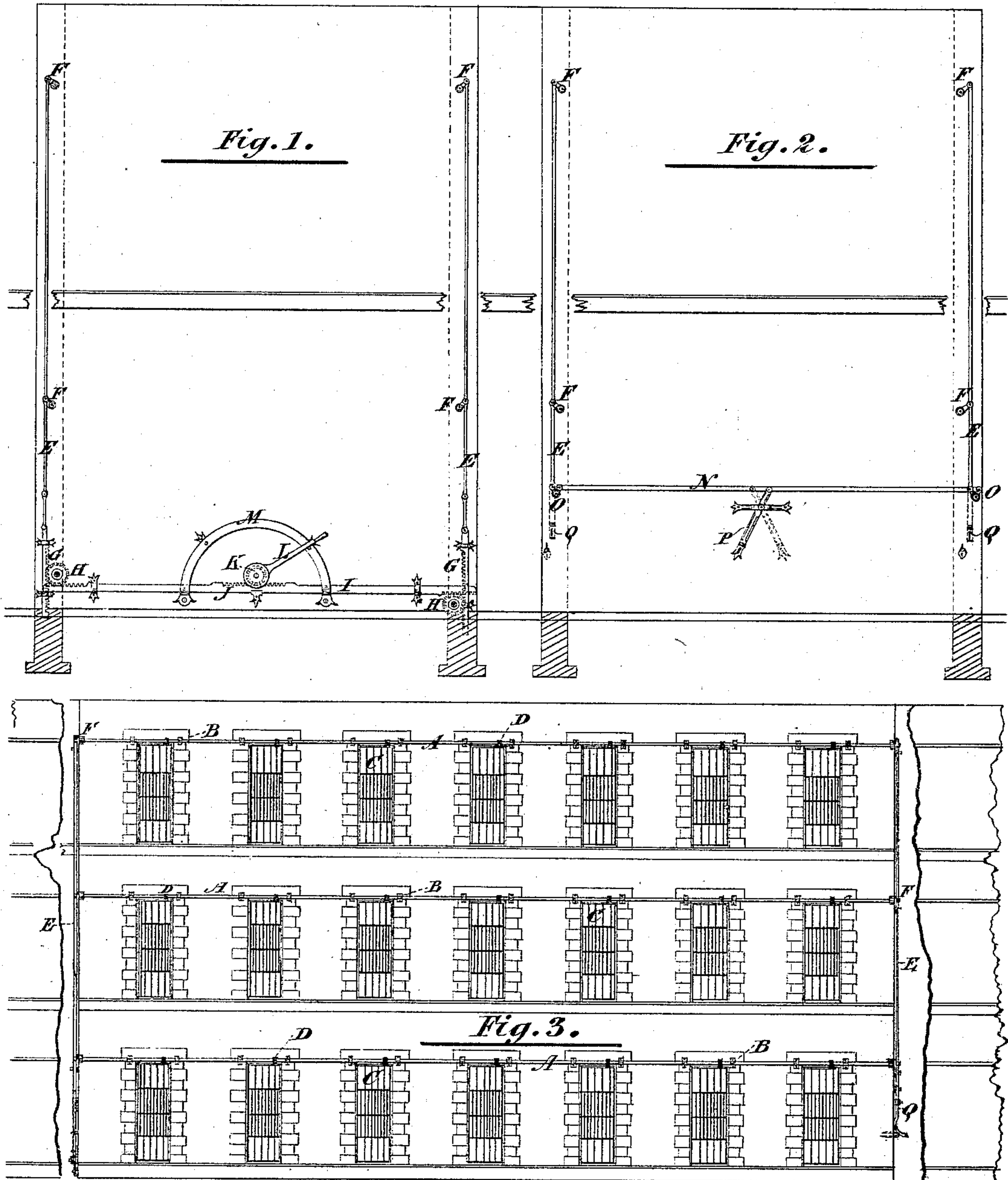


T. LALOR.
Bolts for Prison Doors.

No. 144,210.

Patented Nov. 4, 1873.



Witnesses;

William Sheppard.
Hugh Aird

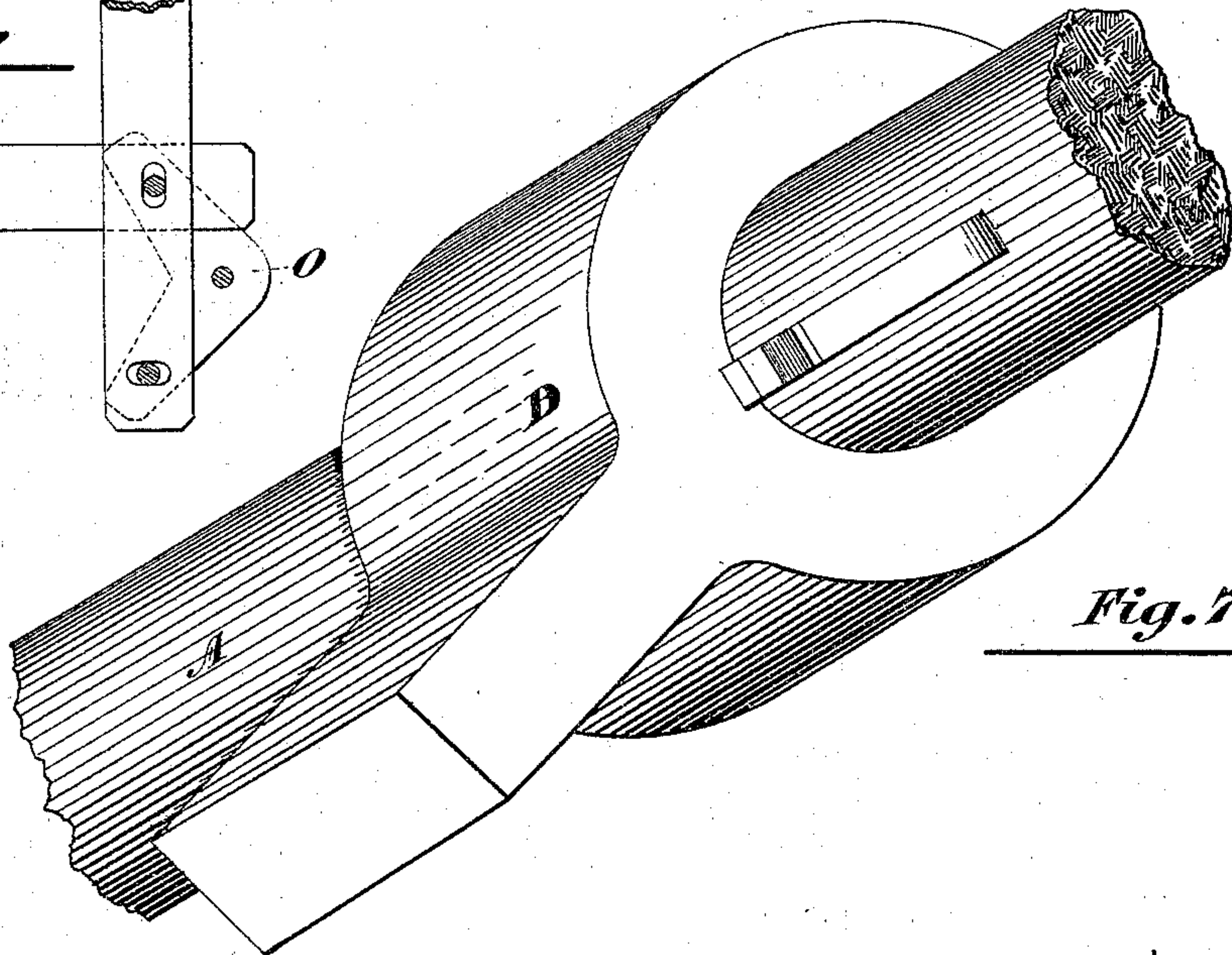
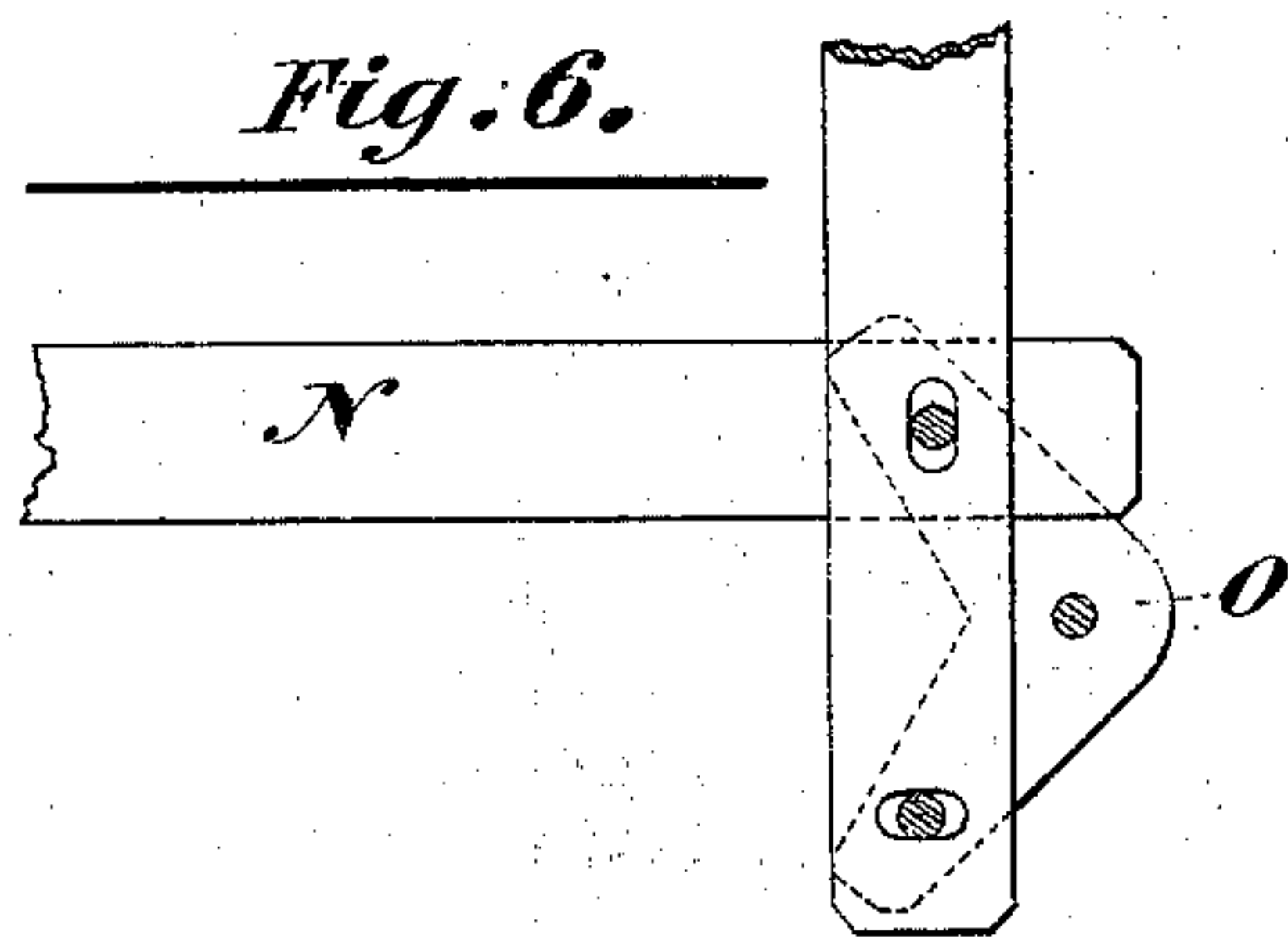
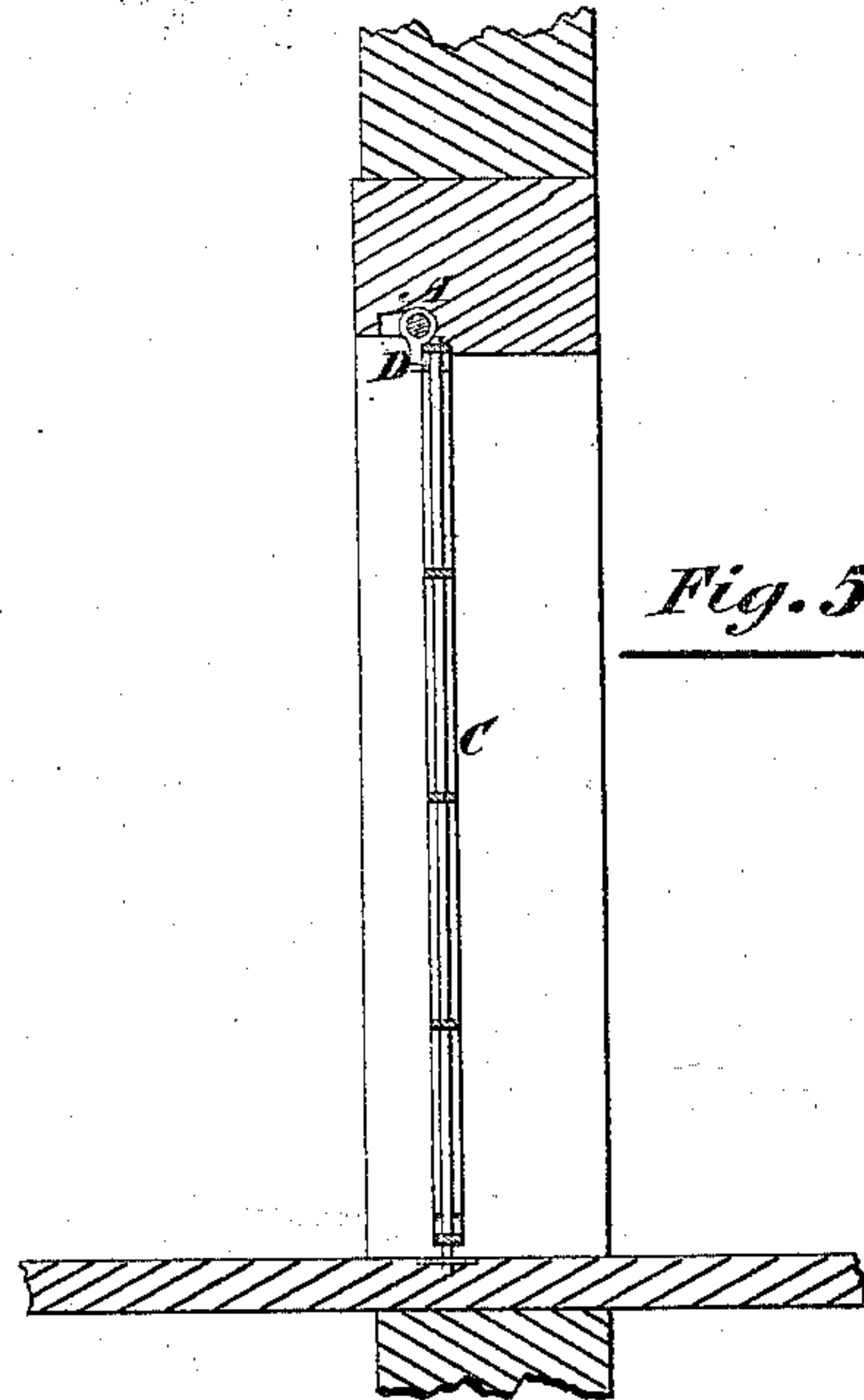
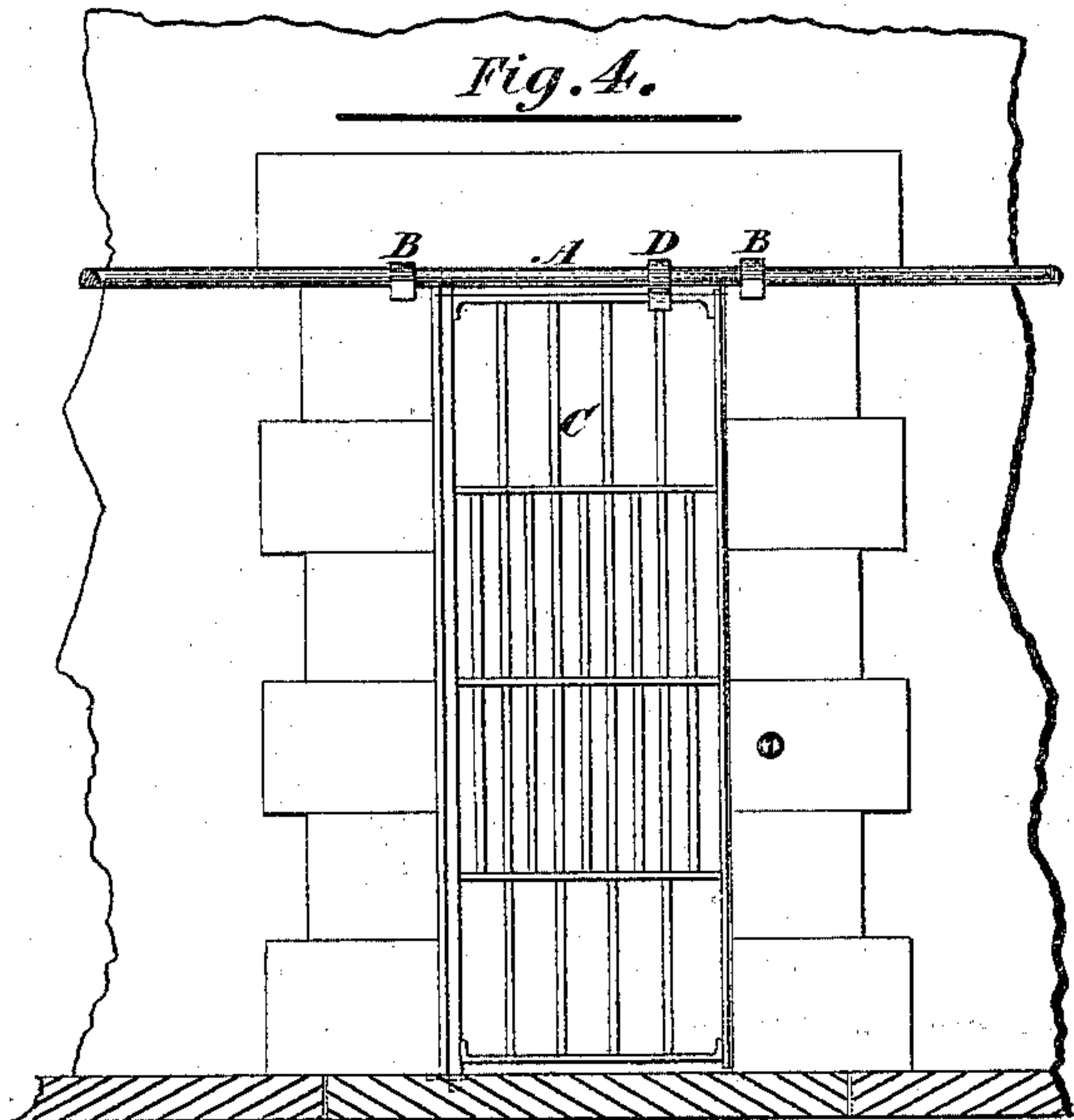
Inventor;

Thomas Lalor
by
Donald B. Ridout & Co.
attys.

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UNITED STATES PATENT OFFICE.

THOMAS LALOR, OF TORONTO, CANADA, ASSIGNOR TO EDWARD CROSSMAN,
OF SAME PLACE.

IMPROVEMENT IN BOLTS FOR PRISON-DOORS.

Specification forming part of Letters Patent No. 144,210, dated November 4, 1873; application filed
September 1, 1873.

To all whom it may concern:

Be it known that I, THOMAS LALOR, of the city of Toronto, in the Province of Ontario, Canada, have invented an Auxiliary Lock or Fastening for the Cell-Doors of Prisons, Asylums, or other such Public Buildings, of which the following is a specification:

My invention relates to an auxiliary lock or fastening for the cell-doors of prisons, asylums, and other such like public buildings, the said lock being so arranged that all the doors are secured simultaneously, and may be controlled by a single padlock, fastened by the warden or other person in charge.

Figure 1, Sheet 1, is a cross-section through the warden's office; Fig. 2, Sheet 1, representing another device for the same purpose; Fig. 3, Sheet 1, interior elevation; Fig. 4, Sheet 2, elevation of cell-door; Fig. 5, Sheet 2, cross-section of cell-door; Fig. 6, Sheet 2, detail of bell-crank O; Fig. 7, Sheet 2, detail of dog D.

Like letters indicate like parts in all views in the drawings.

A are horizontal shafts or rods suspended by brackets B over the cell-doors C. D is a dog, which is keyed or otherwise fastened to the horizontal shaft A over each door. E are vertical rods connecting the horizontal shafts, the cranks F forming the connection. G are racks connected to the vertical rods E. (Represented only in Fig. 1.) These racks gear into the pinions H, as do also the end racks on the horizontal bar I. On the center of this bar I there is cut another rack, J, into which the pinion K gears. This pinion is connected to the lever L, and is pivoted in the position shown. M is a quadrant, on which the lever L works.

I have now described the construction of my invention sufficiently to enable me to refer to its operation. The parts not mentioned so far I shall refer to further on.

As shown in Fig. 2, the cell-door is closed, and the dog D points down, projecting over the top of the door, so as to prevent its opening. All the dogs D are pointing in the same

direction; consequently, the cells having been previously closed, no door can be opened so long as their respective dogs project over them, as shown in Fig. 4. As all the dogs D are keyed to the horizontal shafts A, and these shafts connected together by the cranks F and vertical rods E, as described, it follows that, upon raising or lowering the rods E, a corresponding rotary motion in proportion to the travel of the cranks F is conveyed to the horizontal shafts A. In order that the doors C may be opened, it is simply necessary to convey the said motion in the proper direction to the shafts A, when the direction of the dogs D would be changed from a vertical to a horizontal position, and vice versa.

The arrangement of racks and pinions, as shown in Fig. 1, is for the purpose of conveying the requisite motion to the various parts mentioned simultaneously, and is so clearly shown in drawing that further description would be superfluous.

The warden, or other person in charge, has simply to move the lever L in the quadrant in order to secure or release all the doors in connection with the arrangement described. This lever is, of course, fastened with a padlock, or by other suitable means.

In Fig. 2, another arrangement is shown for operating and securing my system of fasteners. The vertical rods E are here connected to a horizontal shaft, N, by a bell-crank, O, the pivoted lever P operating as will be understood by reference to the figure mentioned. A padlock or other fastening would, of course, be applied in the same manner, as referred to in Fig. 1. On the end of the building opposite to that shown in Figs. 1 and 2, I have the same vertical rods E connected to the shafts A, also in like manner, but on their lower ends I have a hasp, Q, (see Figs. 2 and 3,) which, when the dogs D are down, will fit over a staple placed in proper position for that purpose, and into which a padlock can be placed.

Although my system of fastenings herein described might be used as the sole fastenings

for the door, I wish it to be understood that this is not my intention; as I believe it will be found better to use the ordinary locks in addition, mine being simply an auxiliary fastening and check, which can be controlled by the warden.

What I claim as my invention is—

The dogs D upon the lock-shafts A, whether

operated through the rack and cog-wheels or the bell-cranks and levers, as shown, and combined to form a fastening for prison-doors, as described.

THOMAS LALOR.

Witnesses:

WILLIAM SHEPPARD,
HUGH AIRD.