

(No Model.)

A. PUGSLEY.  
SHUTTER WORKER.

No. 433,819.

Patented Aug. 5, 1890.

Fig. 1.

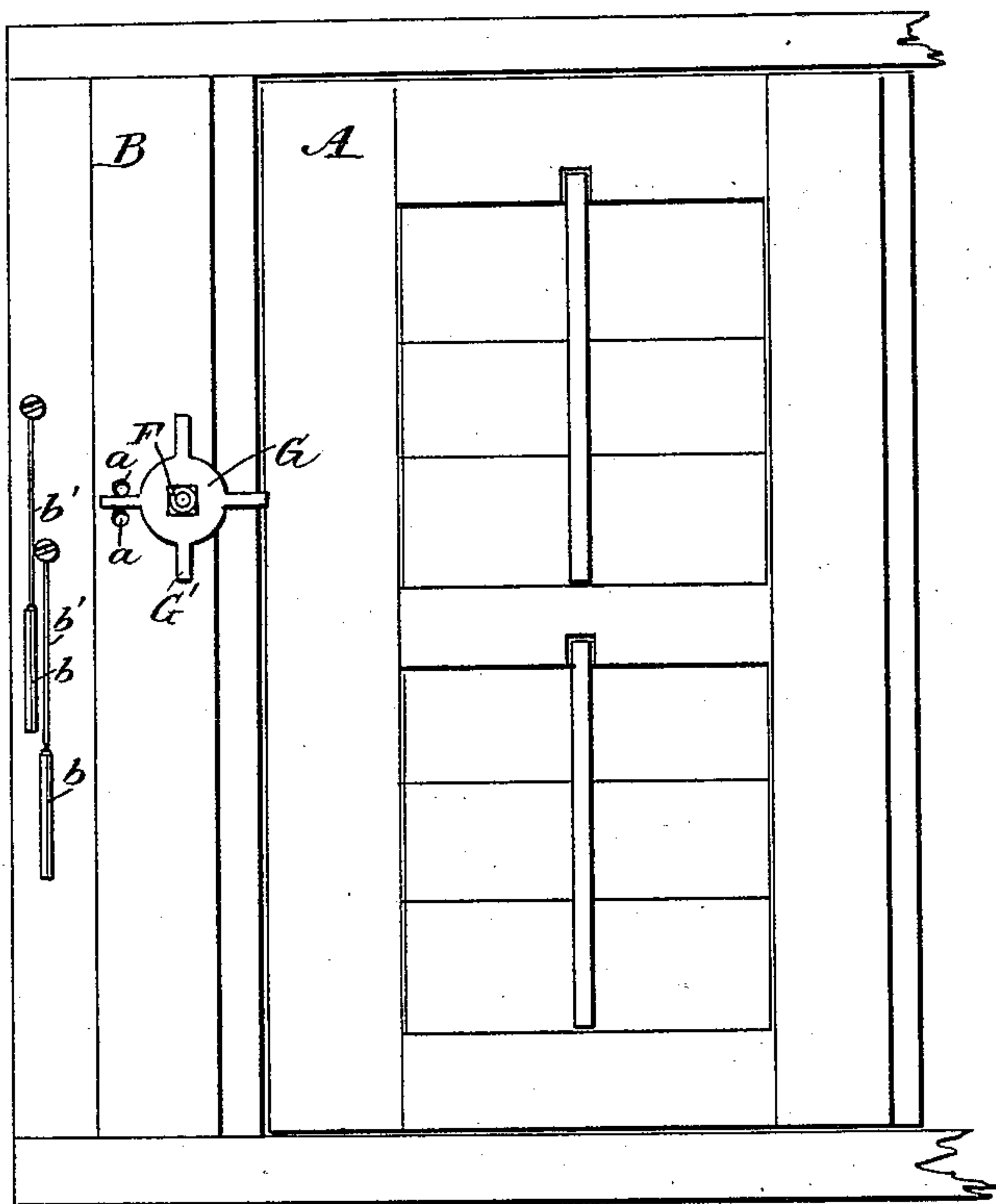


Fig. 2.

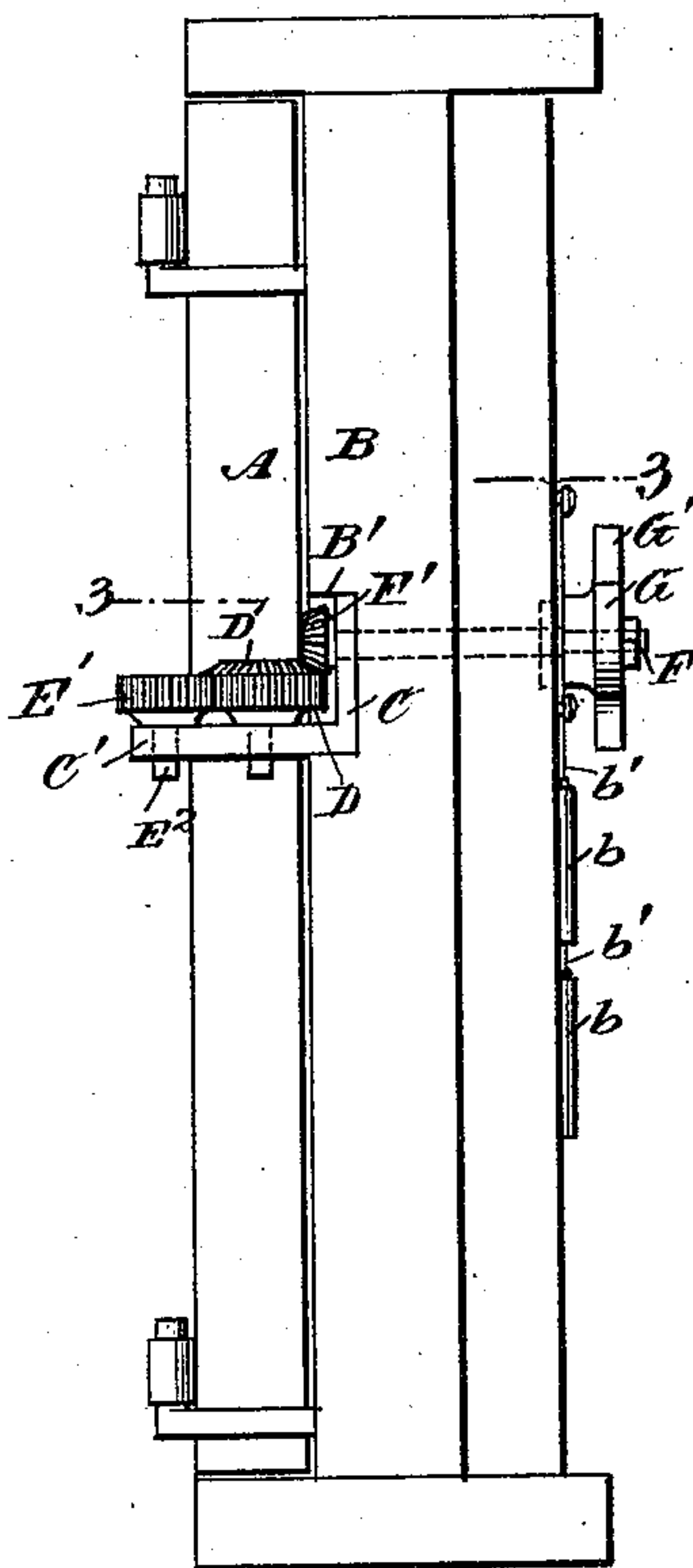
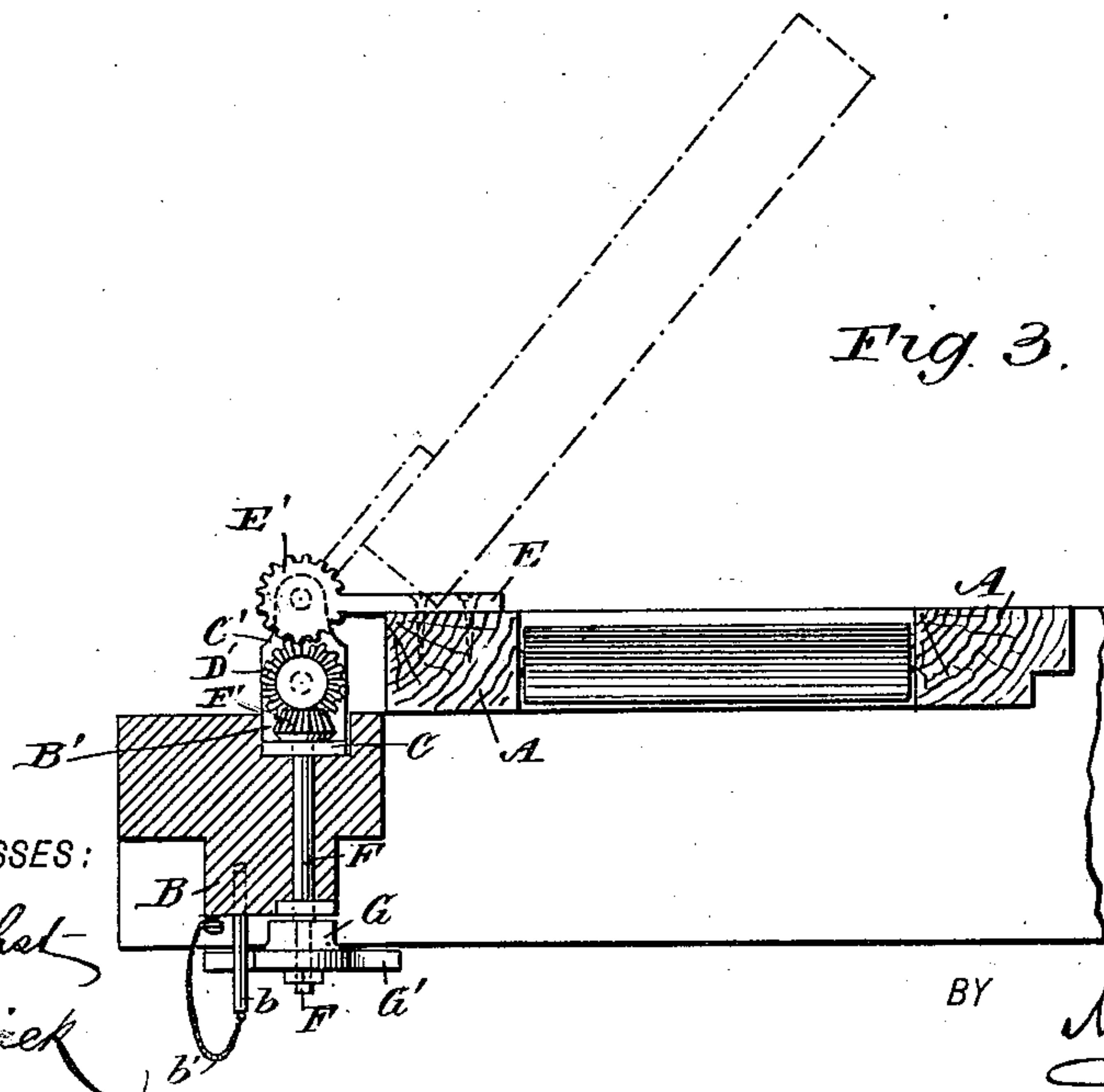


Fig. 3.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

ABRAHAM PUGSLEY, OF JAMESTOWN, RHODE ISLAND.

## SHUTTER-WORKER.

SPECIFICATION forming part of Letters Patent No. 433,819, dated August 5, 1890.

Application filed April 15, 1890. Serial No. 347,999. (No model.)

*To all whom it may concern:*

Be it known that I, ABRAHAM PUGSLEY, of Jamestown, in the county of Newport and State of Rhode Island, have invented a new and Improved Blind-Operating Device, of which the following is a full, clear, and exact description.

My invention relates to improvements in a device for operating and fastening window-blinds; and the object of my invention is to provide a simple and efficient device by means of which the blind may be operated from the inside of the building, and also to provide means for fastening the blind in any desired position.

To this end my invention consists in certain features of construction and combinations of parts, which will be hereinafter fully described, and pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is an inside view of the blind closed within a window-frame and provided with a device embodying my invention. Fig. 2 is an inside edge view of the blind and window-frame, showing the operating mechanism attached thereto; and Fig. 3 is a horizontal section on the line 3 3 of Fig. 2.

The blind A is hung upon suitable hinges on the outer side of the building in the usual manner, so as to swing, when closed, within the window-frame B.

Fixed in a recess B' in the outer edge of the window-frame is an angular plate C, having a projecting horizontal portion C', said portion being placed adjacent to the back edge of the blind.

Pivoted upon the horizontal portion C' of the plate C is a gear-wheel D, which meshes with a gear E', which is fixed to the strap E, said strap being secured to the outer side of the blind A. The gear E' is provided with a depending spindle E<sup>2</sup>, which projects through a perforation in the outer end of the horizontal portion C' of the plate C, so that the blind A may be lifted from its hinges, when desired, in the usual manner, and the gear E' will at the same time be raised from the portion C'.

Extending through a perforation in the plate C and through the window-frame B to

the inner portion of the building is a horizontal shaft F, having fixed to its outer end a bevel pinion F', which meshes with a bevel gear-wheel D', integral with the gear-wheel D, and fixed to the inner end of the shaft F is a wheel G, having radially-extending arms G'. The inner portion of the window-frame B, adjacent to the wheel G, is provided with holes a, the distance between said holes corresponding to the width of one of the arms G'.

Suspended from the frame by suitable cords b' are pins b, adapted for engagement in the holes a, so that by inserting the pins in said holes on each side of one of the arms G' the wheel G will be prevented from turning, and the blind will thus be fixed in position.

To operate the device the wheel G is turned, thus turning the shaft F, pinion F', and gear-wheel D, and causing the gear E' to operate upon the strap E and swing the blind. By turning the wheel G to the right the blind will be swung outwardly, as indicated by dotted lines in Fig. 3. By turning in the opposite direction the blind will be closed.

In the foregoing description it will be seen that by means of the pins b the blind may be securely locked when closed, and the blind may also be secured when partially open, as shown in Fig. 3, thus forming a convenient shade and admitting a free circulation of air in the building.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A shutter-worker consisting in the operating-shaft F, provided with a toothed operating-wheel at its inner end and locking-pin therefor, and at its outer end having a bevel-gear F', the angle-bracket in the vertical member C of which the outer end of shaft F is journaled, the spur crown-wheel D D', pivoted to the horizontal member C' of said bracket, with its crown-teeth D' meshing into gear F', the pinion E', pivoted on member C', meshing into spur-teeth D, and provided with a shutter-operating arm E, substantially as set forth.

ABRAHAM PUGSLEY.

Witnesses:

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