

No. 632,333.

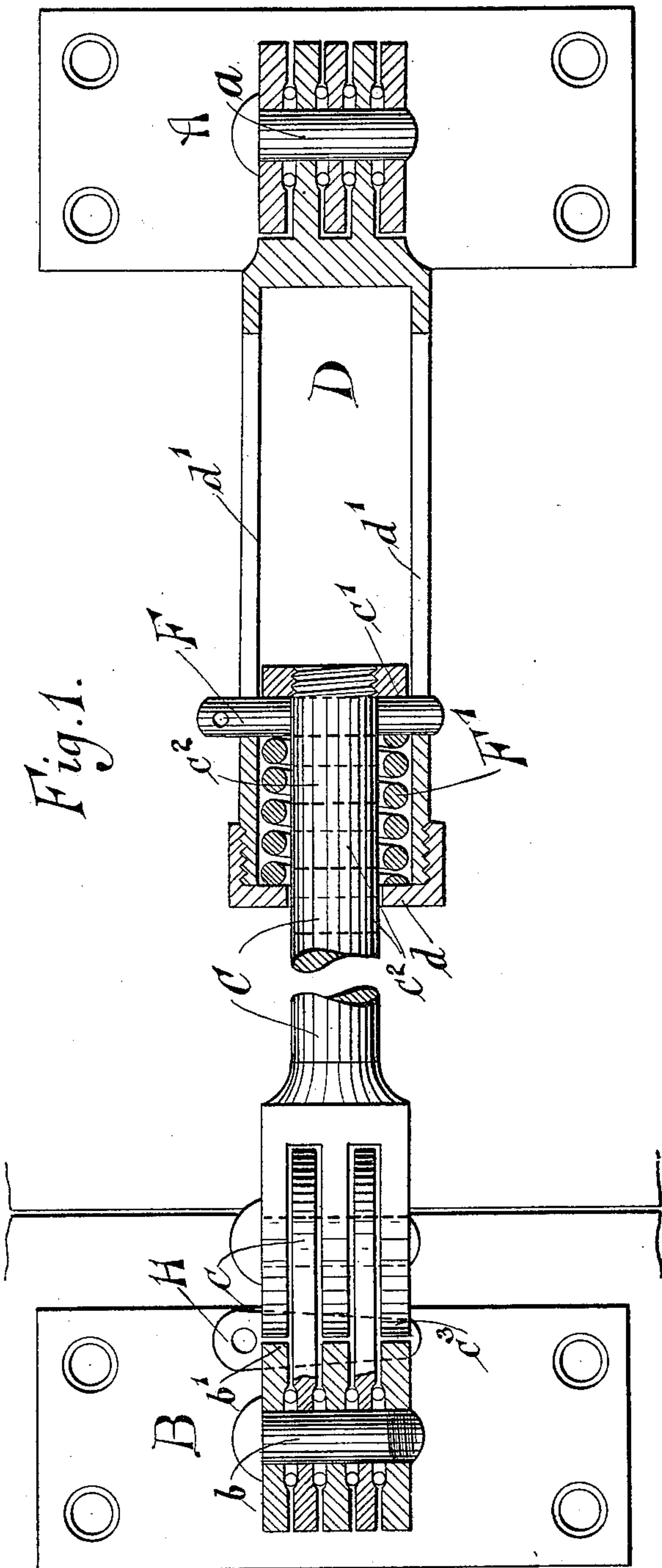
Patented Sept. 5, 1899.

O. BECK.
DOOR HOLDER.

(Application filed Aug. 13, 1898.)

(No Model.)

3 Sheets—Sheet 1.



Witnesses
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Albert Edward Ellis

Inventor
Oliver Beck
By his Attorney
George Henry Ragner

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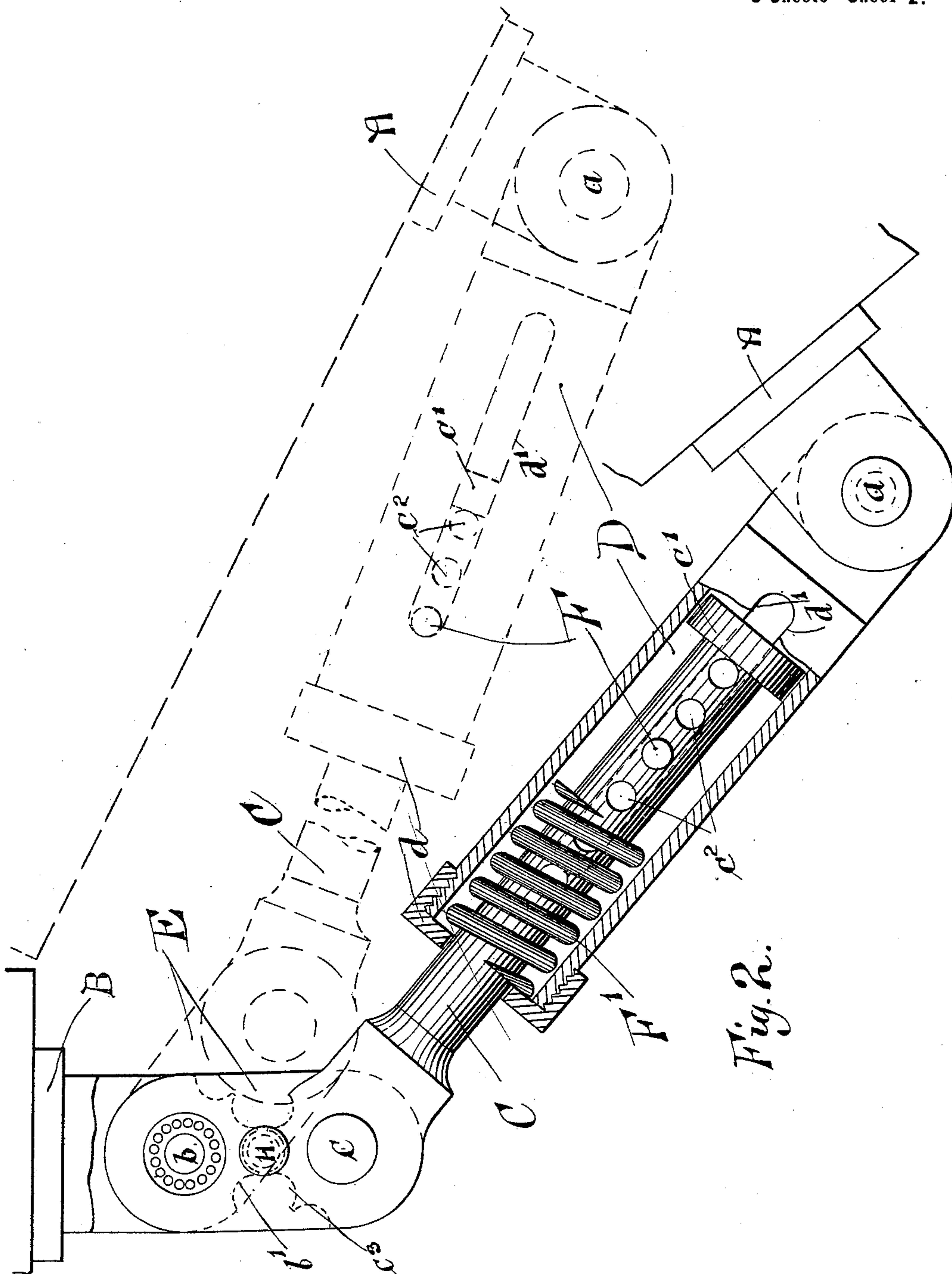
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(Application filed Aug. 13, 1898.)

(No Model.)

3 Sheets—Sheet 2.



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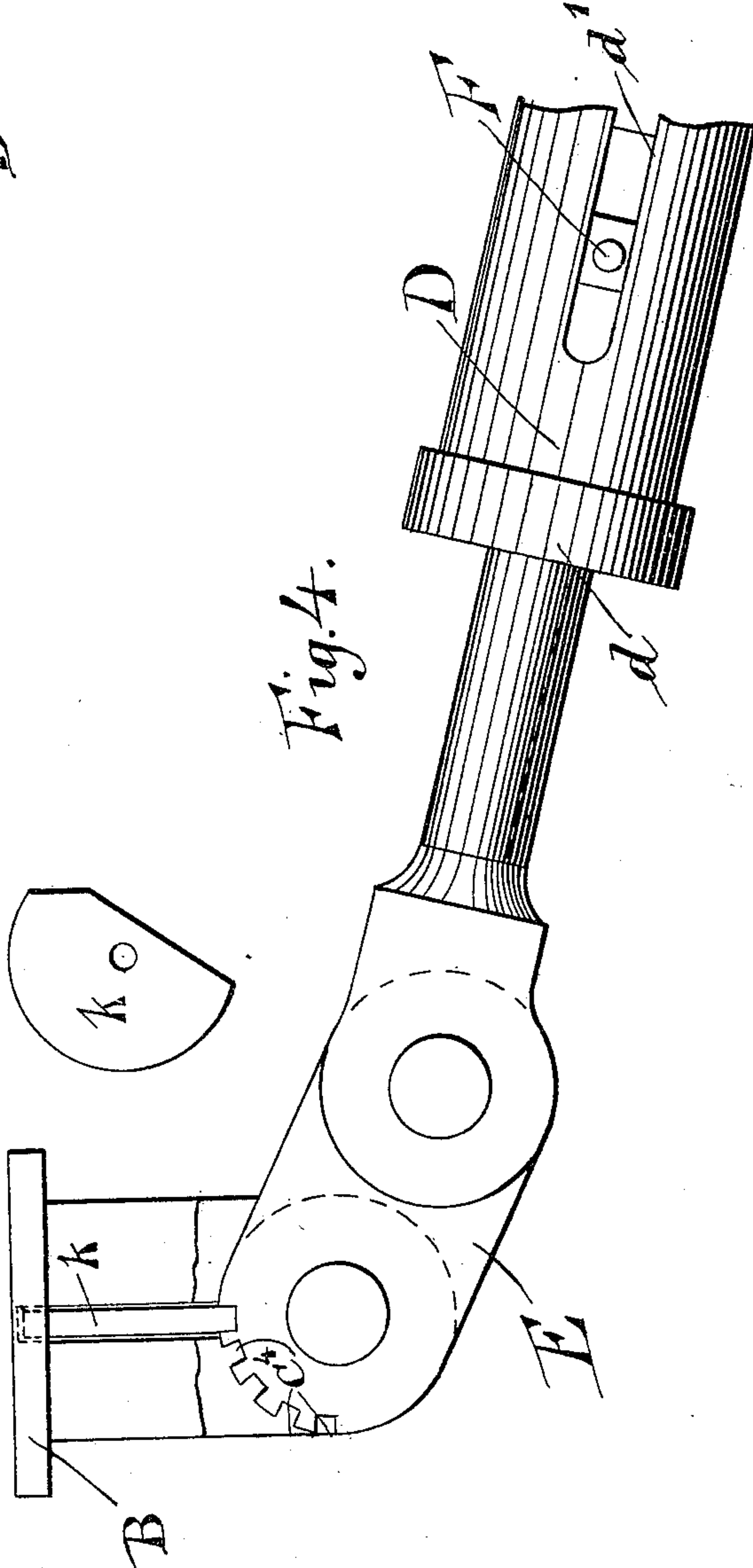
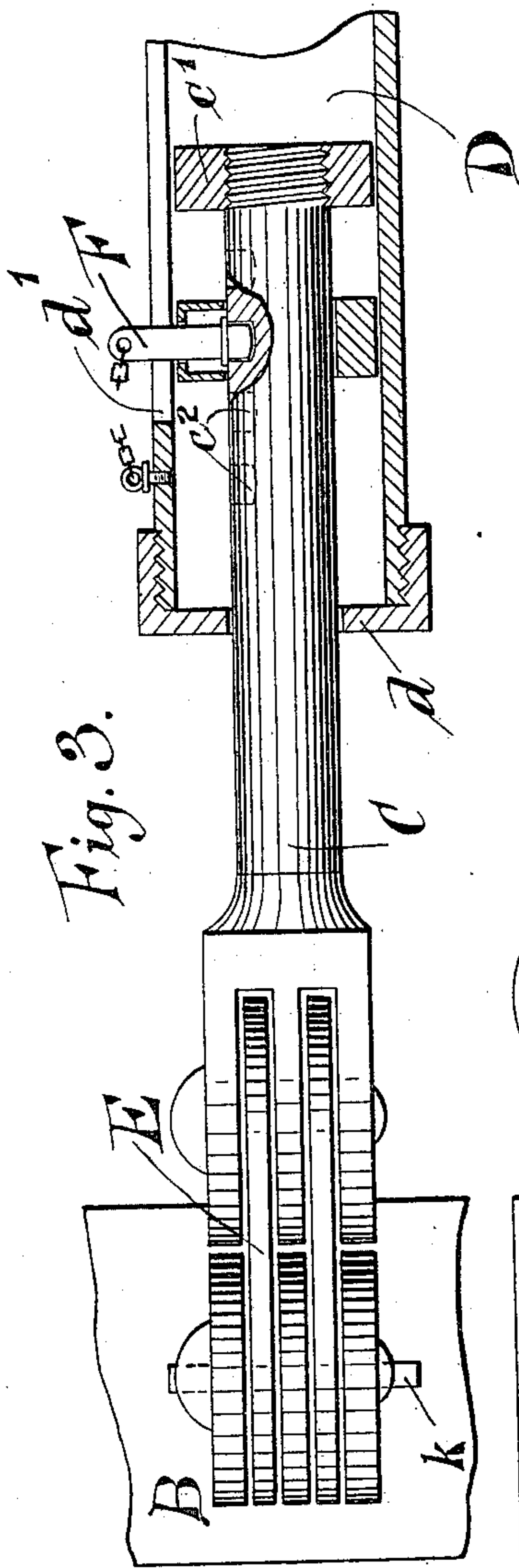
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3 Sheets—Sheet 3.

(No Model.)



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UNITED STATES PATENT OFFICE.

OLIVER BECK, OF WATFORD, ENGLAND.

DOOR-HOLDER.

SPECIFICATION forming part of Letters Patent No. 632,333, dated September 5, 1899.

Application filed August 13, 1898. Serial No. 688,544. (No model.)

To all whom it may concern:

Be it known that I, OLIVER BECK, a subject of the Queen of Great Britain and Ireland, residing at 33 Salisbury road, St. Albans road, Watford, England, have invented certain new Improvements Relating to Door-Holders, of which the following is a specification.

This invention relates more especially to swing-doors such as are used in public buildings and other places, but is also applicable to other doors, and has for its object means for restraining the swinging motion of the door whereby the amount of closure of the door can be regulated.

According to this invention two brackets are screwed one on the door-frame and one on the door, and to these brackets rods are pivoted. The rod which is attached to the bracket upon the door is hollow, and within it another rod is adapted to slide, this latter rod being connected by means of a link to the bracket upon the door-frame. A pin can be inserted in one of several places in this latter rod and projects up through a slot in the outer or hollow rod. As the door is opened or closed the inner rod slides in the outer rod as far as is permitted by the pin, which comes in contact with the ends of the slot, and thus regulates the amount of closure according to the position of said pin. A spring or vulcanized-rubber ring or any other suitable substitute is placed between the pin and the outer or hollow rod, whereby shocks or jerks are minimized when the pin comes in contact with the end of the slot. A device is also provided for locking the door in any position.

In order to more clearly indicate the nature of this invention, reference is had to the accompanying drawings, in which—

Figure 1 is an elevation, partly in section, of a device constructed according to this invention, showing the door in a fully-closed position; and Fig. 2 is a plan, also partly in section, showing the door in an open position and the pin being inserted so as to permit of only a partial closing of the door, as indicated in dotted lines. Fig. 3 shows in elevation another method of fixing the pin F to the rod C inside the hollow rod D. Fig. 4 shows in plan a modified arrangement.

The bracket B is secured to the door-frame by screws or other means at a convenient height, and the bracket A is attached to the door at a suitable distance from the bracket B, and at a corresponding height to the bracket B is attached, by means of the link E, the rod C, and to the bracket A is attached the hollow rod D, the pivots of these swing connections being shown at *a b c*. These pivots are preferably constructed so that the rods C D cannot pass beyond the right-angular position, and they cannot, therefore, turn inward and probably become broken or damaged.

The rod C is adapted to slide within the rod D, and its end is somewhat enlarged, as shown at *c'*. To facilitate this, the end of the hollow rod D is provided with a cap *d*, which is placed in position after the parts have been put together. The rod C is provided with several holes *c²*, and within these a pin F can be inserted, this pin F projecting up through slots *d'*, formed in the hollow rod D.

As the door is opened the rods C D and the link E move slightly on their pivots *a b c*, and the rod C slides in the rod D. During this action the parts take up the position shown in plan in Fig. 2. As soon as the door is released it swings back until the pin F comes in contact with the end of the slot *d*, when further movement is prevented, as shown in dotted lines, Fig. 2. It will thus be seen that the amount of closure of the door can be regulated according to which of the holes *c²* the pin F is inserted into. Thus in Fig. 1 the door will entirely close, but in Fig. 2 only to the angle shown in dotted lines.

In order to minimize shocks and jerks, a spring F' is inserted between the cap D and the pin F.

To provide a means for locking the door in any position, disk surfaces *C³ b'* are formed upon the end of rod C and upon the bracket B, adjacent to the link E, and these disks are formed with a number of recesses or teeth on their peripheries, between which a pin H can be inserted, so as to engage the teeth or recesses on both, or by means of a segment of a wheel working in the bracket B and engaging with a number of slots *C⁴* on the end of link E, and thus prevent any movement, thereby locking the door in any position.

If desired, an automatic closing device may be combined with the above-described arrangement.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a device for regulating the closure of swing and other doors, consisting of brackets attached one to the door-frame and one to the door, a hollow rod pivoted to the bracket upon the door, a rod pivoted by means of a link to the bracket upon the door-frame and adapted to slide within the hollow rod, and a pin inserted in one of several holes in said sliding rod and projecting through a slot in the hollow rod, substantially as set forth and for the purposes specified.

2. In a device for regulating the closure of swing and other doors, consisting of brackets attached one to the door-frame and one to the door, a hollow rod pivoted to the bracket upon the door, a rod pivoted by means of a link to the bracket upon the door-frame and adapted to slide within the hollow rod, a pin inserted

in one of several holes in said sliding rod and projecting through a slot in the hollow rod, a spring connection between the pin and the hollow rod and a means for locking the whole apparatus in any desired position, substantially as set forth and for the purposes specified.

3. In a device for regulating the closure of swing and other doors, consisting of brackets A B, rods C D, link E, pivots *a b c*, pin F inserted in one of the holes C² in the rod C and working in the slot *d* of the rod D, spring G, wedge H, and slots formed in the approximate ends of the links, all arranged and operating substantially as set forth with reference to the drawings and for the purposes specified.

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

OLIVER BECK.

In presence of—

ALBERT EDWARD ELLEN,
ERNEST HAGGETT.