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Patented Apr. 15, 1902.

T. F. KELLY.

INDICATING MECHANISM FOR POST OFFICE BOXES.

(Application filed June 10, 1901.)

(No Model.)

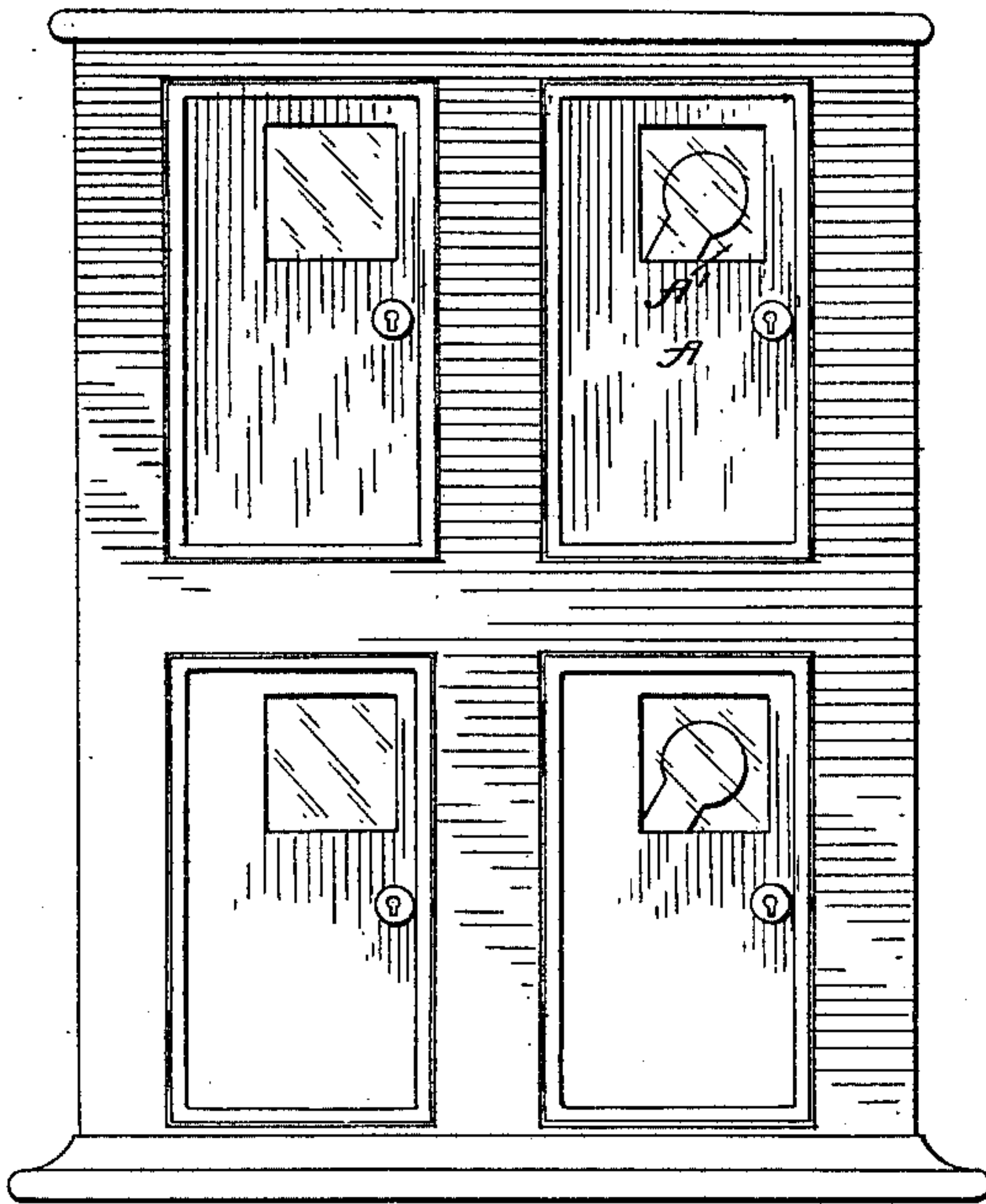


Fig. 1.

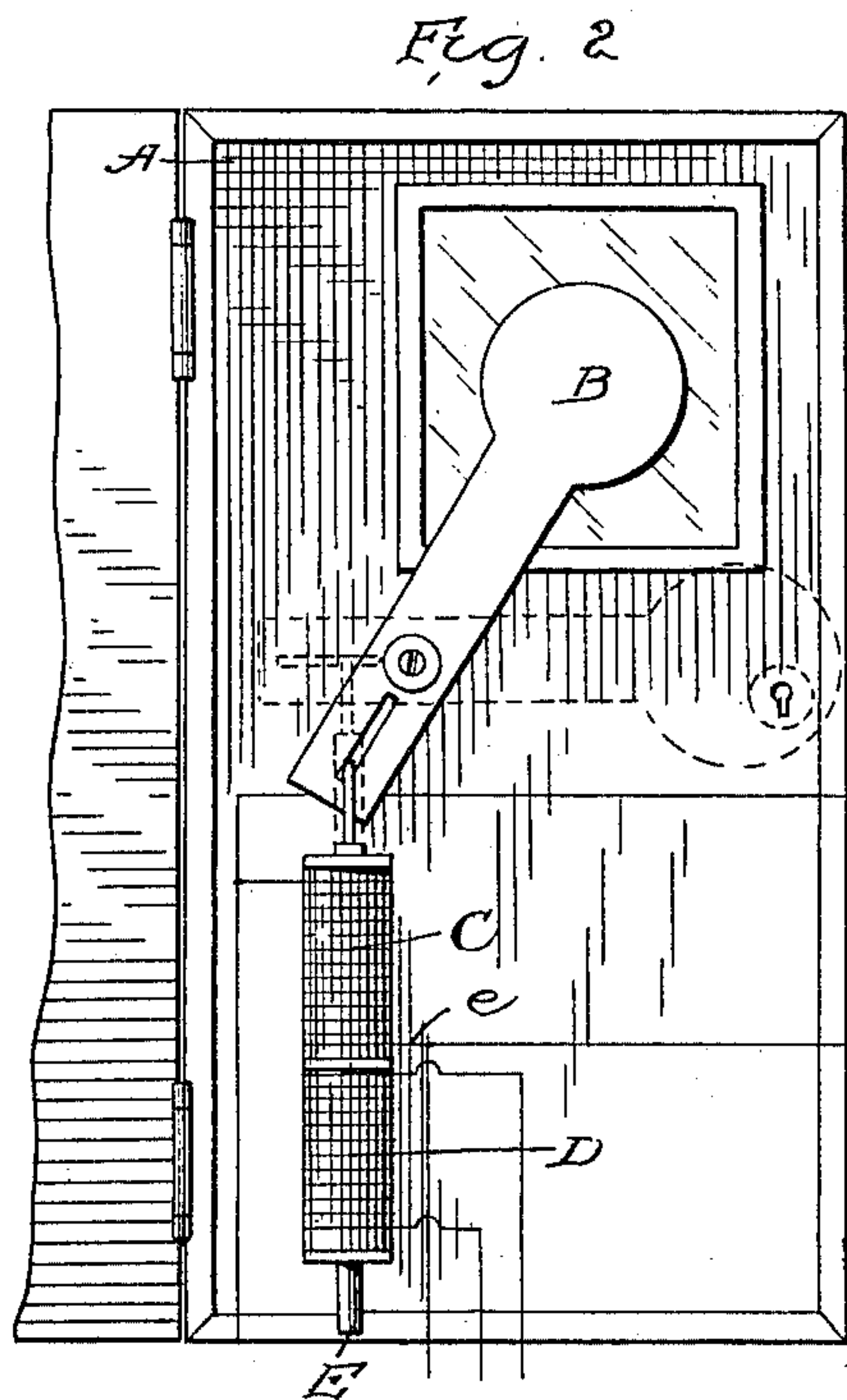
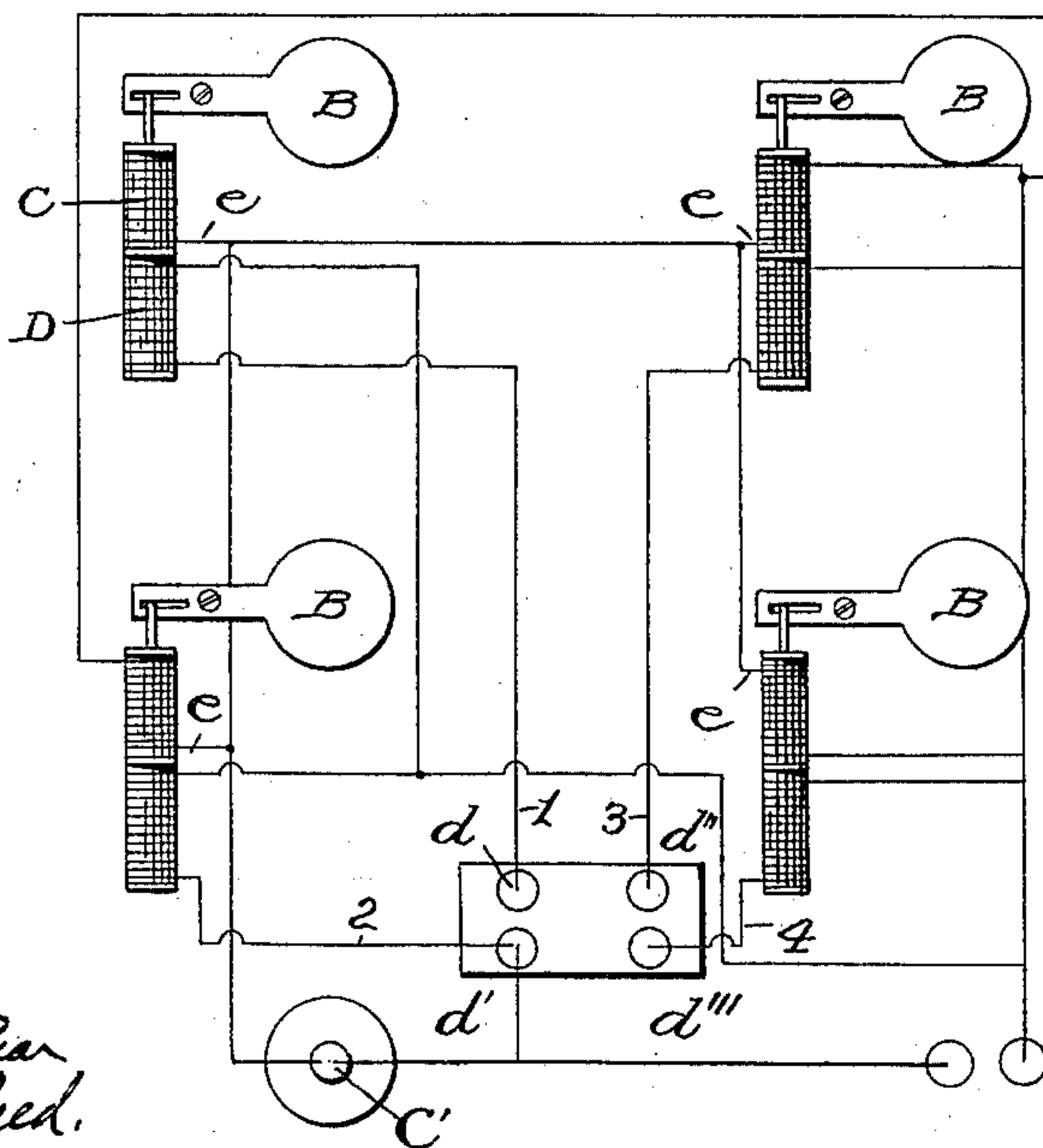


Fig. 3.



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UNITED STATES PATENT OFFICE.

THOMAS F. KELLY, OF ADAIR, IOWA.

INDICATING MECHANISM FOR POST-OFFICE BOXES.

SPECIFICATION forming part of Letters Patent No. 697,849, dated April 15, 1902.

Application filed June 10, 1901. Serial No. 63,984. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. KELLY, a citizen of the United States, residing at Adair, Adair county, Iowa, have invented certain
5 new and useful Improvements in Indicating Mechanism for Post-Office Boxes, of which the following is a specification.

My present invention relates to improvements in indicators for post-office boxes of
10 that class which is described in an application filed by me in the United States Patent Office on the 7th day of March, 1901, Serial No. 50,147. The form of indicating mechanism described in the said application is not
15 well adapted for lock-boxes which have hinged doors at the front, as the curtain when lowered would prevent the owner of the box from withdrawing the mail therefrom, and it is to adapt the invention to lock-boxes that
20 I have devised the construction hereinafter described.

I have illustrated the invention in the accompanying drawings, in which—

Figure 1 is a front elevation showing four
25 boxes as an example, though it will be understood that the invention may be applied to any number of boxes without difficulty. Fig. 2 is a rear view of one of the doors, and Fig. 3 is a diagrammatic view illustrating the elec-
30 trical connections.

Referring more particularly to the drawings, the letter A represent a plurality of compartments or pigeonholes of the ordinary or any desired construction having hinged
35 doors A', which, as usual, consist of a solid frame having a central glass to enable the person renting the box to ascertain whether it contains mail without opening it.

To indicate when the box-rent is due, I provide on the rear of each door a pivoted indicating-arm B, which may bear any suitable words of notification, such as "Box-rent due," which will be displayed through the glass-covered opening when the arm is in one position and will be concealed from view when the arm is in another position. I prefer to operate these arms by electrical magnetic devices so arranged that all of the arms may be simultaneously operated at the close of the
40 quarter or other period for which the box is rented to indicate that the rent is due, while
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each may be separately operated to restore it to normal position when the box-rent is paid.

The device for operating each arm preferably consists of a double solenoid C D, having a soft-iron core E, which is connected to the indicating-arm in such a manner that the movement of the core will vibrate the arm to swing it into and out of exposing position. The upper solenoids C are preferably connected in multiple, as indicated by the connection e, with a suitable source of current, a suitable push-button or other circuit-closing device c' being provided, by which the circuit may be closed through the solenoids C, which will operate the indicating-arms to swing them into view. The arms are designed to move with sufficient friction whereby they will remain in any position to which they may be moved, so that it is only necessary to momentarily close the circuit through the solenoid C, whereupon the indicating-arms will remain with their words of notification exposed to view until positively restored to normal position. In order to severally restore them to their initial position, each solenoid D D' D'' D''' is connected, through a push-button d d' d'' d''', with the source of electrical supply by the wires 1 2 3 4, suitable return connections being provided. It will
55 thus be seen that upon the closing of the circuit through one of the circuit-closing devices d d' d'' d''' the corresponding solenoid will be energized and the indicating-arm operated, and thus restored to its initial position independent of any of the other arms.
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The indicating arms and solenoids are attached to the frame of each door, as shown, and the electrical connections made through the hinges, which are insulated for the purpose in the manner well known to those skilled in the art.

Having thus described my invention, what I claim is—

1. The combination with a plurality of post-office boxes, of an indicating device for each box, and electrical means for operating said indicating devices, said means including electromagnetic devices operatively connected with the indicating devices, electrical connections for connecting said electromagnetic devices with a source of electrical energy, and
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circuit-closing devices for controlling said electromagnetic devices whereby the indicating devices may be simultaneously operated and severally restored to initial position.

5 2. The combination with a plurality of post-office boxes having each a hinged door, of an indicating device carried by each door, and means for operating said indicating devices, said means being operatively connected with
10 the indicating devices when the doors are open as well as when they are closed.

3. The combination with a plurality of post-office boxes, having movable doors closing the fronts thereof, of an indicating device carried
15 by each door and means for simultaneously displaying all of said indicating devices and means for severally restoring them to initial position.

4. The combination with a plurality of post-
20 office boxes having movable doors, of an indicating device carried by each door, electrical means for simultaneously displaying all of said indicating devices, and means whereby said devices may be severally restored to
25 initial position.

5. The combination with a plurality of post-office boxes having movable doors, indicating devices carried by said doors, double solenoids also carried by said doors having their
30 cores connected with the indicating devices, and electrical connections for separately energizing the members of said double solenoids whereby the cores are moved in opposite directions.

6. The combination with a plurality of post-
35 office boxes, of indicating devices therefor, a double solenoid for each box having its core connected with the corresponding indicating devices, electrical connections for simultaneously energizing one of the members of all
40 the double solenoids, and electrical connections for severally energizing the other members.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS F. KELLY.

Witnesses:

A. C. SAVAGE,

JOHN REIMERT.