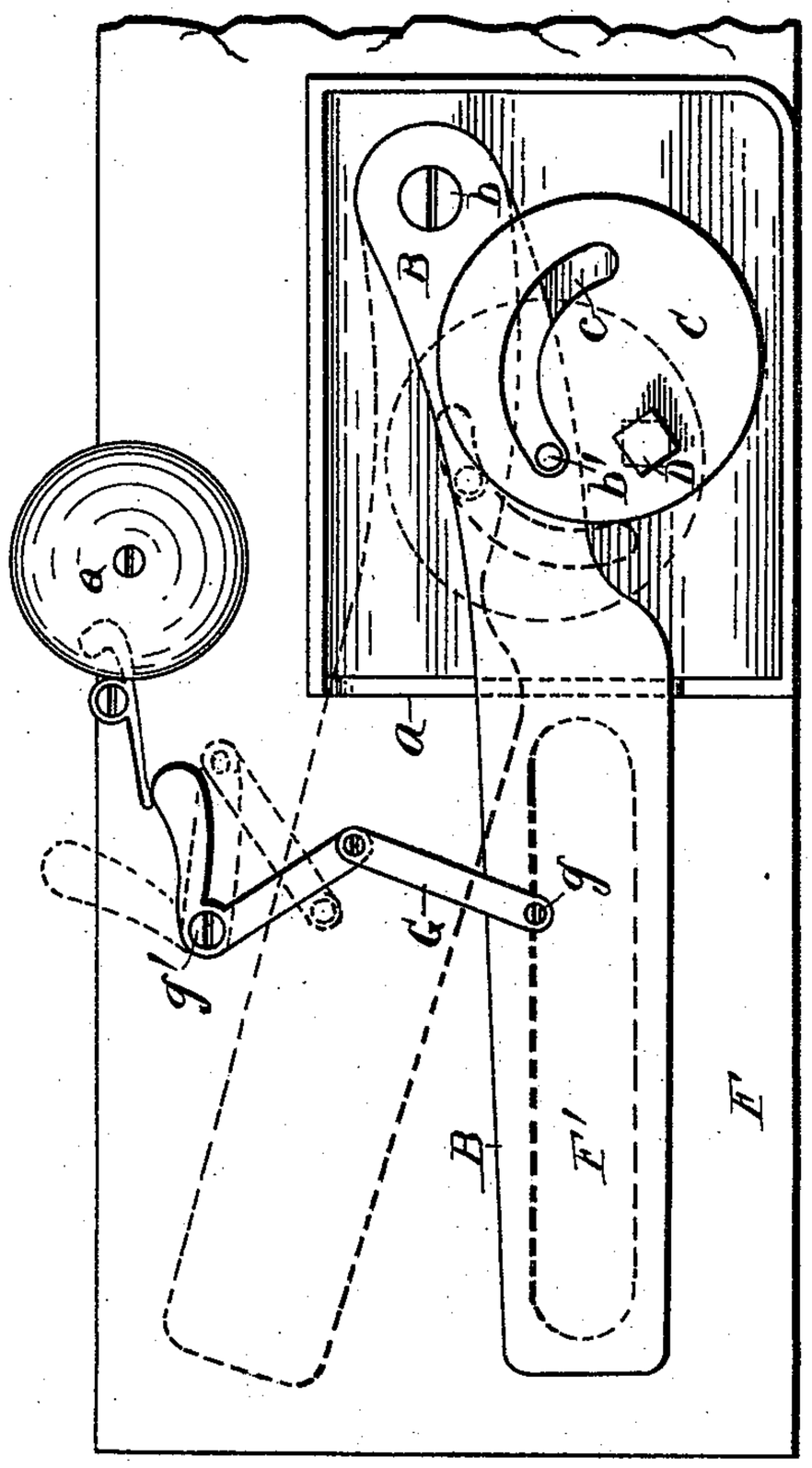
(No Model.)

F. CONRAD.

CONSTRUCTION OF LETTER BOXES.

No. 534,141. Patented Feb. 12, 1895.



WITNESSES

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CONSTRUCTION OF LETTER-BOXES.

SPECIFICATION forming part of Letters Patent No. 534,141, dated February 12, 1895.

Application filed December 26, 1893. Serial No. 494,641. (No model.)

To all whom it may concern:

Be it known that I, FERDINAND CONRAD, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in the Construction of Letter-Boxes; and I declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing, which forms a part of this specification.

My invention relates to new and useful improvements in the construction of letter boxes.

To this end, my invention consists of the construction, combination and arrangement of devices and appliances hereinafter specified and claimed, and illustrated in the accompanying drawing, in which the figure is a view in elevation illustrating my invention.

In full lines, the drawing shows the position occupied by various parts of the device when in position to close the letter box, the drawing showing in dotted lines the position of various parts when in position to open the box.

My invention is designed more particularly to provide a device of simple construction, of superior efficiency and utility, and which will at the same time be of economical construction, and which shall not be liable to get out of order.

I carry out my invention as follows:

F denotes a portion of a letter box constructed with a suitable orifice shown in dotted lines at F′.

B denotes an arm pivotally engaged in the box at one end, as shown at "*b*," permitting its forward end to have an oscillatory movement.

C is an operating disk constructed with an elongated arc-shaped slot "*c*." The oscillatory arm is provided with a pin *b′* passed through this arc-shaped slot "*c*." The disk is made rotatable by any suitable means, as by a key or by a spindle. The spindle D is engaged eccentrically with the disk, and eccentrically in relation to the slots "*c*," so that as the disk is rotated, the pin *b′* upon the oscillatory arm is moved in a corresponding manner, thereby operating the arm to oscillate it in one direction or the other, as the case may be. As so constructed and illustrated, the device is made of two pieces, the oscillatory arm and the disk. The device is therefore obviously very simple. No spring is required, and there is nothing in the construction and arrangement liable to get out of order. At the same time it is impossible when in a closed position to move the oscillatory arm except by moving the disk as the relation of the disk and arm are such that the disk must be operated to move the arm. The arm is prolonged to a sufficient length to cover the orifice F′ when in closed position. To make the relation of the arm to the letter box closer and firmer, a toggle lever G may be employed engaged with the arm at one end, as shown at "*g*," and upon the box toward the opposite end, as shown at *g′*. This opposite end of the lever may be projected beyond the pivotal connection, and a bell be engaged therewith to ring when the arm is manipulated.

Any desired key whatsoever may be employed to manipulate the disk.

While I have described the device C as a disk, it need not always be the disk form, as its shape may be varied as desired. By moving the disk in one direction the arm is closed, and is opened by moving it in the opposite direction. The hole at *c′* in the disk, which in the drawing is shown square to receive the spindle may be made of any desired form to receive the key. It will be seen that the slot "*c*" is of cam-shape.

What I claim as my invention is—

1. In combination, a letter box provided with a receiving orifice, an oscillatory arm to close and open said orifice, an oscillating disk constructed with a cam-shaped slot engaging said arm and an operating spindle or key having an eccentric engagement with said disk to operate said arm, substantially as set forth.

2. In combination, a letter-box provided with a receiving orifice, an oscillatory arm to close and open said orifice, an oscillating disk constructed with a cam-shaped slot engaging said arm, and an operating spindle or key having an eccentric engagement with said disk to operate said arm, and a bell operated by the movement of the arm, substantially as set forth.

3. In combination, an arm pivoted at one end and having a free oscillatory movement at the opposite end, said arm provided with a pin or stud intermediate its extremities, an oscillatory disk constructed with a cam-shaped slot engaging said pin or stud, and an operating spindle or key having a direct eccentric engagement with the disk to oscillate the free end of said arm, the radii of the slot at its extremities being of unequal length, substantially as set forth.

4. The combination of an arm pivoted at one end and having a free oscillatory movement at the opposite end, said arm provided with a pin or stud intermediate its extremities, an oscillatory disk constructed with a cam-shaped slot engaging said pin or stud, and an operating spindle or key having a direct eccentric engagement with the disk to oscillate said arm, the center of the oscillation of said disk being eccentric to said slot, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses.

FERDINAND CONRAD.

Witnesses:
N. S. WRIGHT,
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