

J. KATZ.
LETTER-BOX.

No. 184,529.

Patented Nov. 21, 1876.

Fig: 1.

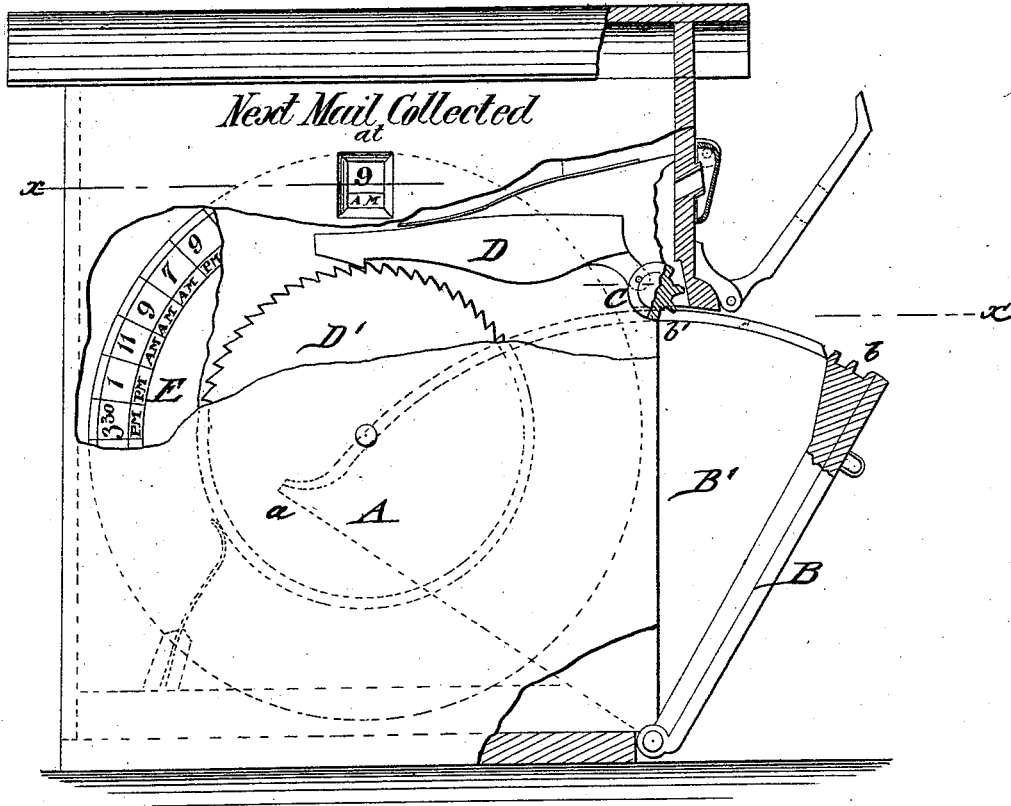
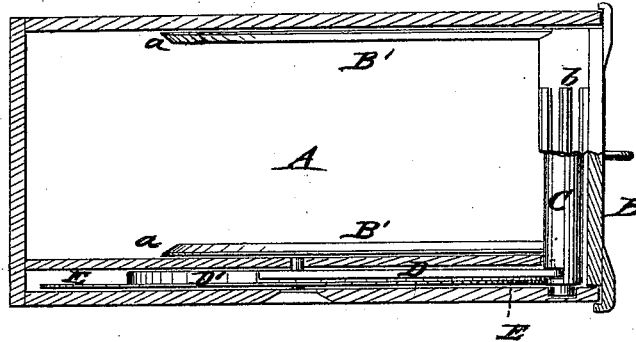


Fig: h.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOSEPH KATZ, OF NEW YORK, N. Y.

IMPROVEMENT IN LETTER-BOXES.

Specification forming part of Letters Patent No. 184,529, dated November 21, 1876; application filed October 7, 1876.

To all whom it may concern :

Be it known that I, JOSEPH KATZ, of the city, county, and State of New York, have invented a new and Improved Letter-Box, of which the following is a specification :

In the accompanying drawing, Figure 1 represents a side elevation of my improved letter-box, with parts broken out to show construction of operating mechanism below; and Fig. 2 is a horizontal section of the same on line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

The invention relates to an improved letter-box that indicates automatically, by being opened and closed, the time at which the mail is to be collected; and the invention consists of a swinging door or drop that is hinged to the box, and provided with teeth at the free end, that engage similar teeth of a roller or mutilated pinion, that operates, by a pawl-and-ratchet device, the time-indicating disk.

Referring to the drawing, A represents a letter-box, which is provided at one side with a door, B, hinged to the lower part of the same. The door B has quadrantal sides B', that are guided along the walls of the box A in being swung outwardly and pushed inwardly, the sides preventing the letters from falling out when opening the box. The arch-shaped edges of the sides B' are tapering, and slide in grooves of a roller, C, that turns in bearings of the box above the closing edge of the door. The rear ends of the edges of the sides B' have short curved extensions *a*, that bear against the roller, so as to retain the door in position when entirely opened. The upper edge of the door B is provided with a few rack-teeth, *b*, that engage similar teeth, *b'*, of the roller C, when the door is opened or closed. The roller C is connected, by a hook-shaped spring-pawl, D, with a ratchet-wheel, D', for turning a disk, E, along the circumference of which the time fixed for collecting the letters is arranged for a week or other period, the teeth of the ratchet corresponding

thereto. At each opening of the door the pawl is made to slide over one or more teeth of the ratchet-wheel by the intermeshing of the teeth of roller and door; and at the closing of the door, after the letters have been taken out, the teeth of door and roller intermesh again, carrying the roller back, and causing the spring-pawl to engage the ratchet and set thereby the disk E to the hour at which the mail is next to be collected. The tapering quadrantal edges of the side parts B' of the door bear on the roller C, and retain the same in position, preventing the turning of the same during the swinging of the door into open or closed position. The leverage of spring-pawl, number of teeth, and division of time-indicating disk are proportioned to the frequency by which the mails are collected, so as to be readily arranged for any mail-service. A covering interior wall incloses the operating mechanism, and admits the ready changing of the same, if desired.

The appointed time is visible through a glass-covered perforation at the front of the letter-box, while the letters are deposited preferably from the sides. The door is closed by a suitable lock, and arranged by the mechanism described, to adjust the time-disk in perfectly automatic manner without any interference from the outside.

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

1. The combination of the hinged door B of a letter-box, having teeth *b* at the upper edge, with a roller, C, having intermeshing teeth, pivoted spring-pawl D, ratchet-wheel D', and time-disk E, substantially as specified.

2. The combination, with the swinging door, having quadrantal sides with tapered edges, of the roller, having guide-grooves, as shown and described, for the purpose specified.

JOSEPH KATZ.

Witnesses :

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AUGUST F. BRONNER.