

No. 611,803.

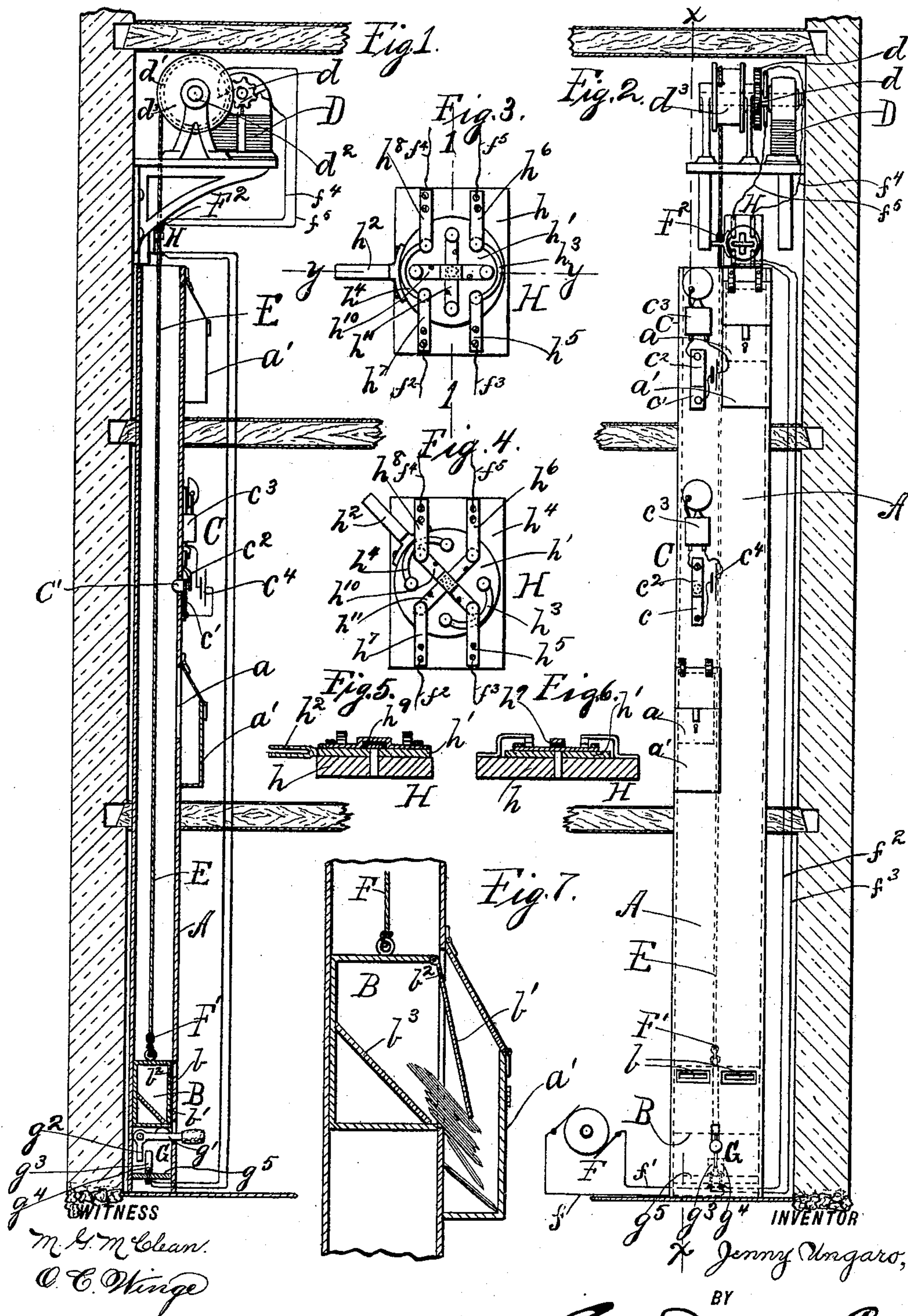
Patented Oct. 4, 1898.

J. UNGARO.

MAIL DISTRIBUTING DEVICE.

(Application filed Aug. 12, 1897.)

(No Model.)





# UNITED STATES PATENT OFFICE.

JENNY UNGARO, OF NEW YORK, N. Y.

## MAIL-DISTRIBUTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 611,803, dated October 4, 1898.

Application filed August 12, 1897. Serial No. 647,934. (No model.)

*To all whom it may concern:*

Be it known that I, JENNY UNGARO, a subject of the King of Italy, and a resident of New York city, county of New York, and State of New York, have invented certain new and useful Improvements in Mail-Distributing Devices, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which  
10 similar letters of reference indicate corresponding parts.

This invention relates to improvements in mail-distributing devices for apartment-houses, office-buildings, or private dwellings, and my object is to provide a means whereby  
15 mail deposited in a carrier on the ground-floor will be distributed automatically and quickly to the different floors or apartments of the building.

In the drawings, Figure 1 is a sectional end elevation of my invention on a line  $xx$  of Fig. 2. Fig. 2 is a front elevation. Fig. 3 is a view of current-reverser. Fig. 4 is a view of current-reverser in opposite position. Fig. 5 is  
25 a sectional view of the current-reverser on a line  $yy$  of Fig. 3. Fig. 6 is a sectional elevation of the current-reverser on a line  $ll$  of Fig. 3; and Fig. 7 is a sectional view showing the carrier delivering mail to the receptacle.

In the practice of my invention I employ a conduit or shaft A, extending from the ground-floor to any height where mail is to be delivered. At each floor the shaft, through the front wall thereof, is provided with an opening  
35  $a$ , over which is secured a box or mail-receptacle  $a'$ . Within the shaft A is a car or carrier B, adapted to receive mail through openings  $b$  in the lower end of the outer wall of said shaft. This carrier is divided into a number of compartments registering in vertical alinement with the openings  $a$  in the shaft A where mail is to be delivered, said openings in the shaft corresponding in number with the compartments of the carrier B and each opening  
40 registering with one compartment of the carrier B. Thus the mail deposited in the first compartment will be delivered on first floor or apartment and matter in second compartment will be delivered on the second floor or apartment, and so on at each successive landing.  
50 In front of each compartment of said carrier a door  $b'$  is suspended, being hinged at its up-

per edge and being provided with an opening  $b^2$  near its upper end through which the mail-matter is inserted. Each compartment is provided with inclined false bottom  $b^3$ , so placed that matter always rests against the swinging door  $b'$ , which is prevented from swinging outwardly by the walls of the shaft A. Now it is evident that as the car passes an opening  
60 in the tube or shaft the pressure of the matter against the depending door  $b$  will force it outward and the matter will drop into the receiving-boxes  $a'$ .

The receiving-boxes  $a'$  are secured to the exterior of the shaft or tube A directly over the openings  $a$  and extending downwardly a short distance to facilitate the delivery of the mail.

At any suitable point on the exterior of the shaft, preferably near the receiving-box  $a'$ , is a signal device C, consisting of contact-piece  $c$  of resilient metal and having a button or projection  $C'$  on its upper end which protrudes into the shaft A, a second metallic  
75 contact-piece  $c^2$ , an electric bell  $c^3$ , and any suitable source of electrical supply, as  $c^4$ . It will be seen that as the carrier ascends the button is forced outward and contact is made between contact-pieces  $c$  and  $c^2$  and the bell rings until the carrier has passed, when the button springs back to original position, then breaking the circuit. This signal is adapted to give notice that mail-matter has been discharged into a receptacle  $a'$ .  
85

For raising the carrier through the shaft A I provide an electric motor D, on the armature-shaft of which is a small pinion  $d$ , meshing with a larger gear-wheel  $d'$ , secured on the shaft  $d^2$ , which carries the drum  $d^3$ , to which  
90 is secured the cable E, attached to the carrier B. The motor is electrically connected with any suitable source of electric power F by means of wires  $f$  and  $f'$ , connected with a switch G, wires  $f^2$  and  $f^3$ , leading from the switch G to current-reverser H, and wires  $f^4$  and  $f^5$ , leading from current-reverser H to the motor D.

The switch G comprises a lever  $g'$ , with a depending contact-piece  $g^2$  adapted to be inserted between the two spring contact-pieces  $g^3$  and  $g^4$ , mounted on an insulating-support  
100  $g^5$ . The switch G is so placed with reference to the carrier B that the carrier in its descent



rests upon the lever  $g'$ , forcing the depending contact-piece  $g^2$  out of engagement with the contact-pieces  $g^3$  and  $g^4$ , thus breaking the circuit through the motor D.

5 The current-reverser H consists of a block  $h$ , upon which is pivotally secured a disk  $h'$ , of ebonite or any suitable insulating material. This disk  $h'$  is provided with a forked lever  $h^2$ , secured to its periphery, and has secured to  
10 its upper surface the two circuit-closers  $h^3$  and  $h^4$ , arranged on the opposite quadrants of the disk  $h'$ . On the block  $h$  are secured the fixed contact-pieces  $h^5$ ,  $h^6$ ,  $h^7$ , and  $h^8$ .

In Fig. 3 it will be seen clearly that the  
15 current will pass through the contact-piece  $h^5$ , the current-closer  $h^3$ , the contact-piece  $h^6$ , and thence to the motor, returning through the contact-piece  $h^8$ , the circuit-closer  $h^4$ , and the contact-piece  $h^7$ .

20 Diametrically across the disk and insulated from each other by fiber or other insulating material  $h^9$  are the two contact-pieces  $h^{10}$  and  $h^{11}$ .

In the position shown in Fig. 4 the current  
25 passes through contact-piece  $h^5$ , circuit-closer  $h^{10}$ , and contact-piece  $h^8$ , thence to the motor, returning through contact-piece  $h^6$ , the circuit-closer  $h^{11}$ , and contact-piece  $h^7$ . It will be seen that the current passes through the  
30 motor in the opposite direction from that shown in Fig. 3, which will cause the armature of the motor to revolve in the opposite direction from that shown in Fig. 4.

The current-reverser H is so placed that  
35 the cable E passes between the prongs of the forked lever  $h^2$ , attached to the disk  $h'$ .

Buttons  $F'$  and  $F^2$  are secured to the cable E in such positions that as the carrier B reaches the uppermost point where mail is to  
40 be delivered the button  $F'$  raises the forked lever  $h^2$ , Fig. 3, which breaks contact between contact-pieces  $h^7$  and  $h^8$  and circuit-closer  $h^4$  and the contact-pieces  $h^5$  and  $h^6$  and circuit-closer  $h^3$  and immediately reestablishes the  
45 circuit, as in Fig. 4, through contact-pieces  $h^7$  and  $h^6$  and circuit-closer  $h^{11}$  and contact-pieces  $h^5$  and  $h^8$  and circuit-closer  $h^{10}$ , thus reversing the current through the motor, and the carrier descends. As the carrier ap-  
50 proaches the end of its descent the button  $F'$  comes in contact with the lever  $h^2$  from the opposite side, setting the circuit-reverser in its normal position, as shown in Figs. 2 and 3, simultaneously breaking the circuit at the  
55 switch G, as already described.

In operation the postman drops the mail through the slots  $b$  into the proper compart-

ment of the carrier B and lifts the lever  $g'$ , thereby making the circuit through the wires  $f$  and  $f'$ , the switch G, the wires  $f^2$  and  $f^3$ , the  
60 current-reverser H, and motor D. The motor D causes the drum  $d^3$  to revolve, thus starting the carrier B in its ascent. As the carrier reaches the first box or opening in the  
65 shaft A the mail of the corresponding compartment will force the hinged door  $b'$  outward and drop into the receiving-box B on that floor or compartment. The carrier continuing on sounds the alarm C, and as it reaches the second opening the contents of  
70 the second compartment will be delivered in the same manner as before, the carrier continuing on delivering at each successive floor until the top of the shaft is reached, when it begins its descent by reversing the current  
75 through the motor, as has been hereinbefore described. As the carrier reaches the bottom the current-reverser is set at normal position by the button  $F^2$  on the cable E, and the current is broken simultaneously by the  
80 pressure of the carrier on lever  $g'$ .

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

A mail-delivery apparatus, comprising a  
85 vertical shaft having a plurality of openings therethrough, receptacles secured over said openings, a carrier provided with a series of compartments arranged in parallel lines thereon, each compartment adapted to regis-  
90 ter with an opening in the shaft, and devices provided in the compartments whereby each compartment automatically delivers its contents into a receptacle, means for sounding  
95 an alarm as each compartment delivers its contents, and means for elevating and lowering the carrier, consisting of a cable adapted to be operated by means of an electric motor, said cable having a button fixed thereon, a  
100 forked switch-lever operated by said button when said carrier is at its highest point, said switch-lever being adapted to cut off and reverse the current of electricity, thereby caus-  
105 ing the carrier to automatically stop and descend after having been elevated, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 6th day of August, 1897.

JENNY UNGARO.

Witnesses:

M. G. MACLEAN,  
E. SEIDLER.