

P. J. SHEEHAN & T. W. McMAHON.

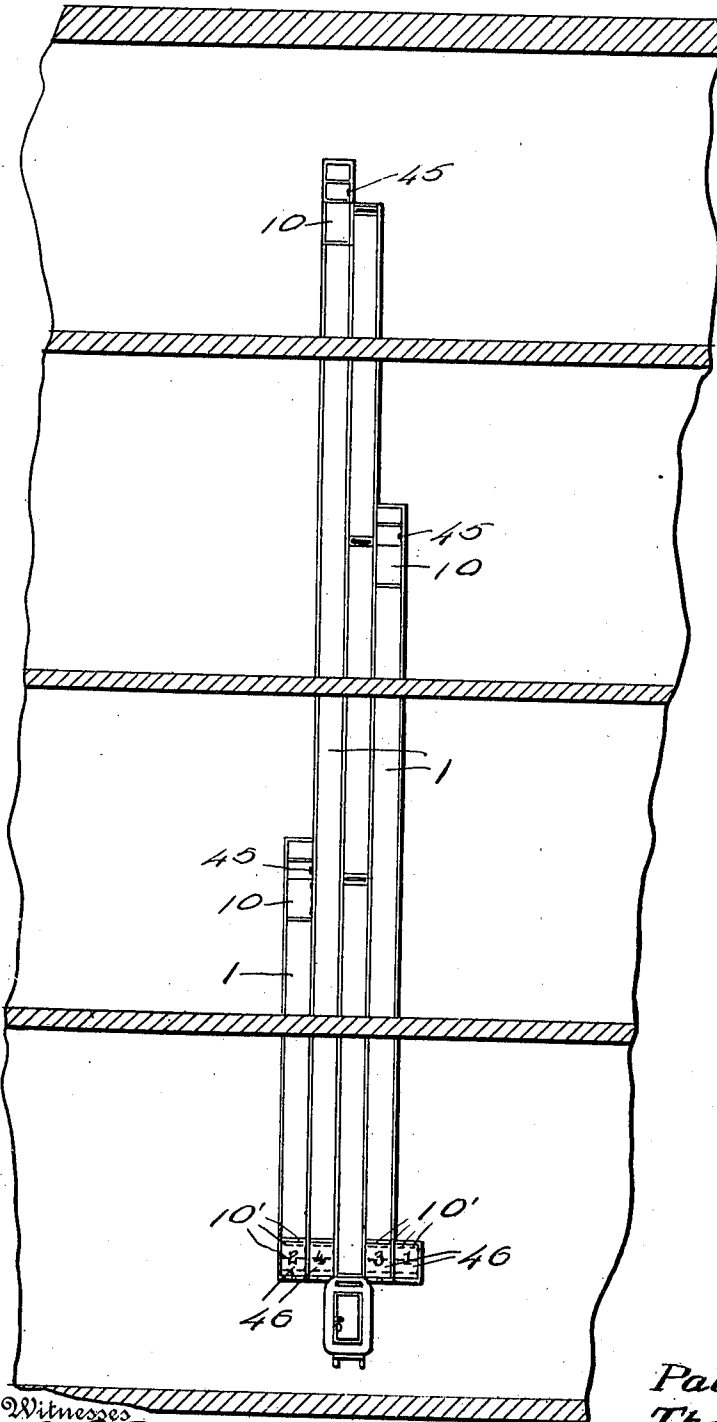
MAIL LIFT.

APPLICATION FILED AUG. 25, 1909.

1,031,383.

Patented July 2, 1912.

3 SHEETS—SHEET 1.



Witnesses
E. F. Constance
E. Hurst

Fig. 1.
334

Inventors
Patrick J. Sheehan
Thomas W. McMahon

Woodward Chandlee
Attorneys

P. J. SHEEHAN & T. W. McMAHON.
MAIL LIFT.

APPLICATION FILED AUG. 25, 1909.

Patented July 2, 1912.

3 SHEETS—SHEET 2.

1,031,383.

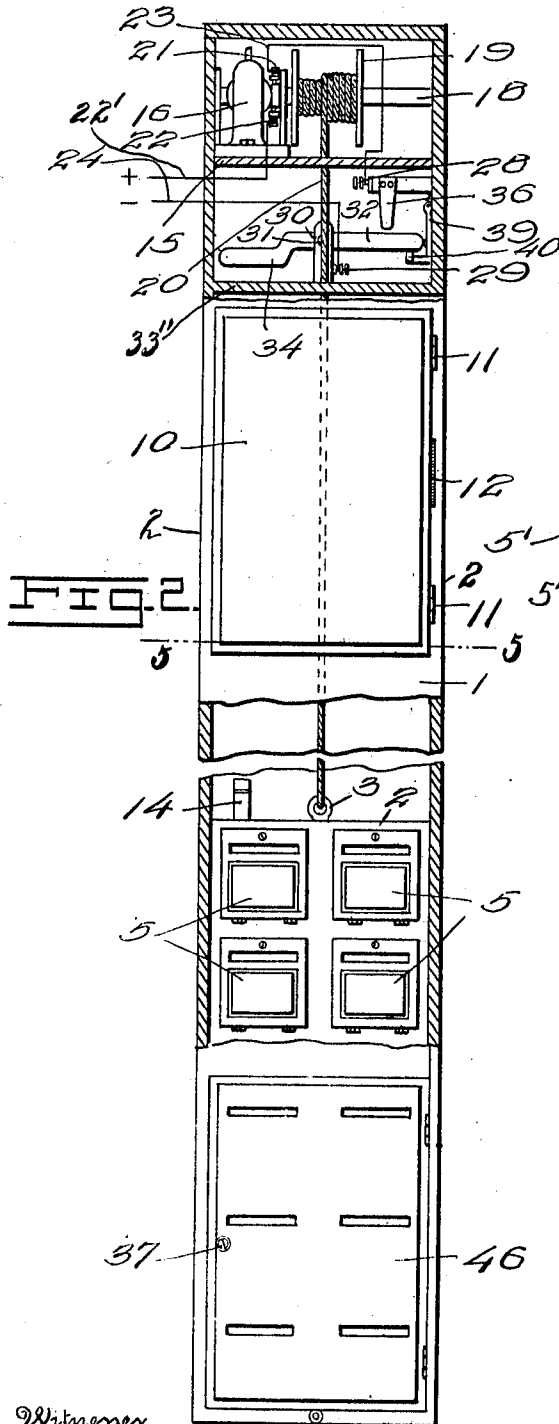


Fig. 5.

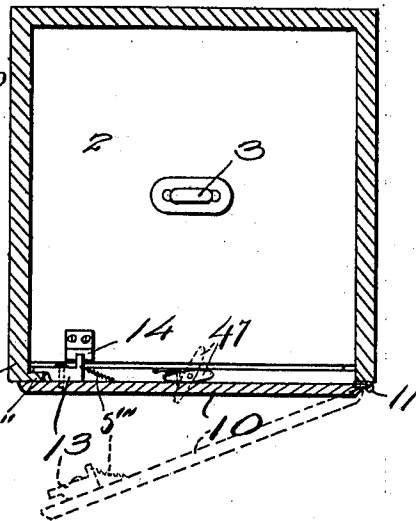
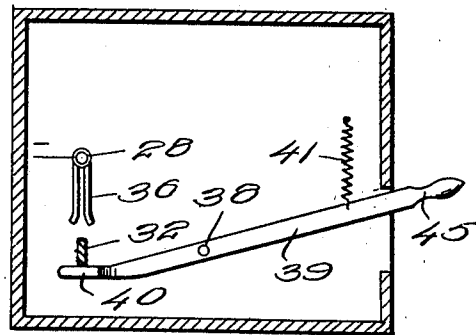


Fig. 6.



Witnesses
E. P. Armstrong
E. Hurst

Inventors
Patrick J. Sheehan
Thomas W. McMahon
 By *Woodward & Chandler*
 Attorneys

P. J. SHEEHAN & T. W. McMAHON.

MAIL LIFT.

APPLICATION FILED AUG. 25, 1909.

Patented July 2, 1912.

3 SHEETS-SHEET 3.

1,031,383.

Fig. 7.

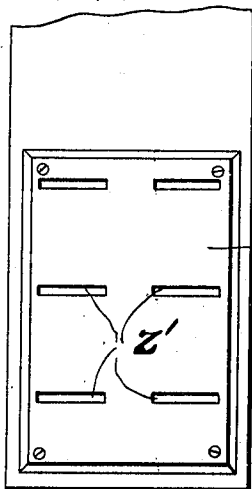


Fig. 3.

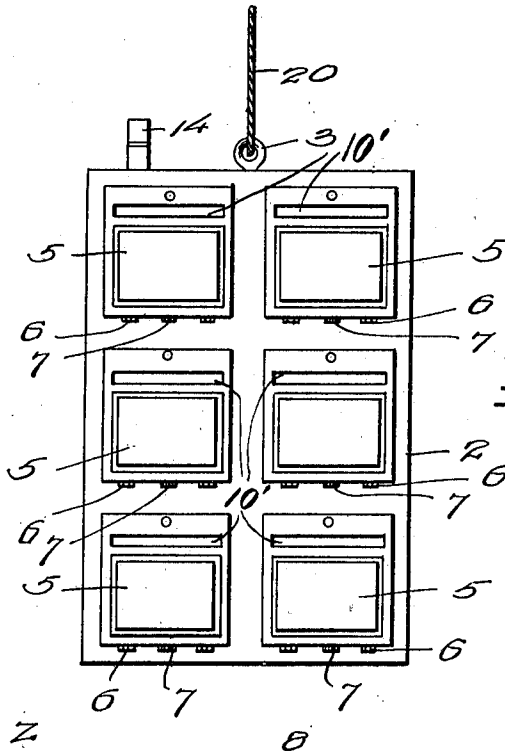
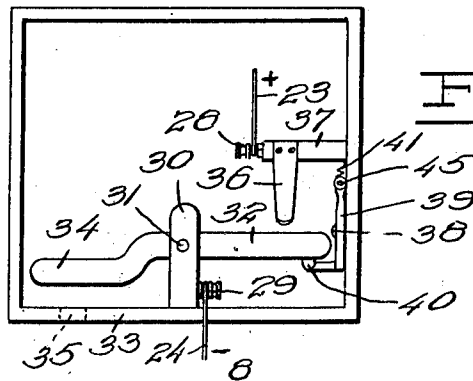


Fig. 4.



Witnesses
L. A. Armstrong
E. Hurst

Inventors
Patrick J. Sheehan
Thomas W. McMahon
 By *Woodward & Chandler*
 Attorneys

UNITED STATES PATENT OFFICE.

PATRICK J. SHEEHAN AND THOMAS W. McMAHON, OF NEW YORK, N. Y.

MAIL-LIFT.

1,031,383.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed August 25, 1909. Serial No. 514,598.

To all whom it may concern:

Be it known that we, PATRICK J. SHEEHAN and THOMAS W. McMAHON, citizens of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Mail-Lifts, of which the following is a specification.

This invention relates to certain new and useful improvements in mail lifts.

The primary object of our invention is to provide a motor-operated mail receiving receptacle, arranged to be installed in a hotel or an office or apartment building, so constructed that the occupants of any compartment may in operating a lever cause the mail containing receptacle to rise to the floor upon which the operator is stationed, permitting the removal of the mail from the receptacle.

Another object of our invention is to provide a mail box raising mechanism so contrived that the box is normally held at the bottom of the chute, and may be raised to the top of the chute in actuating the mechanism, which mechanism is thrown out of working condition upon the rise of the box, permitting the box to gravitate to the bottom of the chute.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 shows an elevational view of a mail lifting apparatus embodying our invention. Fig. 2 shows an enlarged view with portions broken away of the mail chute. Fig. 3 is a detail of one of the mail boxes. Fig. 4 discloses an enlarged detail of the operating lever and switch. Fig. 5 shows a transverse sectional view on the line 5-5 of Fig. 2. Fig. 6 shows an enlarged detail of the operating lever. Fig. 7 is a front detail of a modified closure for the first floor compartments.

Our aim is to provide a hotel, apartment or other building with a means insuring the

safe keeping and prompt delivery of mail matter. This we accomplish in providing the building at a suitable point with a chute 1, preferably square in cross section, which may be located within a wall or secured to a wall. This chute extends from the bottom floor where the postman delivers the mail, upward or downward to the floors or other points where the mail is to be finally delivered. There is a separate chute for each floor and each chute contains but one mail box. These mail boxes numbered 2 are divided into a plurality of compartments there being six shown as within the mail box disclosed in Fig. 3. The doors 5 of each mail box compartment are supported by means of the hinges 6 secured along the lower edge of the door so that these doors will fold downward. Within each mail box receptacle is positioned a spring 7 insuring the doors being held under spring tension while closed, so that as soon as the lock or latch is released these doors 5 will fly open.

At the upper end of each chute is positioned a door 10 immediately in front of the point where the mail box is stopped after having reached its uppermost position. Each door 10 is provided with two hinges 11 and a spring 12 to normally force these doors outward. Each door 10 carries a pivotally-held latch 13 adapted to engage the inturned edge 5' of the chute frame 5'. A coil spring 5''' is suitably connected to the latch 13 and chute frame 5', as disclosed in Fig. 5. These latches 13 extend into the chute a suitable distance, as disclosed in Fig. 5.

The strikers as employed in our invention comprise a preferably sheet metal spring plate having a forwardly extending lip 14 arranged to contact with the inner projecting end of the latch to throw this latch upward permitting the door to be thrown open by means of the spring 12.

Held within the upper end of the chute is a supporting platform 15 upon which is held an electric motor 16 to the projecting armature shaft 18 of which is secured a drum 19, a cable 20 extending from this drum, as disclosed. The cable at its lower end is secured to the eye 3 secured to the top of the mail box. Extending from the binding posts 21 and 22, are the electric conductors 23 and 22' the former of which is led to the terminal 28 of the switch, the

other conductor leading to the source of electric supply as is clearly disclosed in Fig. 4. The conductor 24 leads from the source of power to the binding post 29 of the switch. The motor 16, as well as the switch, is within a suitable electric circuit, the electric motive force being provided from a suitable source.

The binding post 29 forms part of the ear 30 carrying the pin 31 upon which is pivotally held the switch bar 32. As shown in the drawings, this switch is held below the motor upon a suitable platform or shelf 33". The switch bar 32 has one of its ends bent downward as shown at 34 and is held immediately above an access opening 35 through which the striker lip 14 is arranged to project upon the car arriving at its uppermost position. Held above the switch bar 32 are the two switch blades 36 carried by the arm 37, suitably secured to one wall of the chute, these blades 36 being in electric contact with the terminal binding post 28.

Held to the pin 38 which is positioned convenient to the switch bar 32, is the operating lever 39 having the lower crook end 40 which is arranged to be held below the outer end of the switch bar 32. This lever 39 is provided with the insulated handle 45 and by means of the spring 41 this handle is normally tilted in one direction, as disclosed in Fig. 6. This operating lever 39 is arranged to project through a suitable opening within the chute.

As has been set forth, there is a separate chute 1 for each floor. At the bottom of the chute is located a suitable door closed by means of a lock 37, this door 46 being arranged to be exclusively opened by the postman who will carry a key for this door. Each box compartment door 5 is provided with a slot 10' through which the mailman slips the mail addressed to the owner of the box. The parties to receive the mail then repair to the chute and actuate the lever 39 to tilt the switch bar 32 upward into contact with the switch blades 36 which results in starting the motor 16, so that the mail box is carried upward. Arriving at the floor or point of delivery, the striker 14 first engages the latch 13 to throw open the chute door 10 and continuing a short distance contacts with the crooked end 34 of the switch bar 32 to tilt this bar out of contact with the switch blades to open the switch. This results in the motor 16 being stopped. To prevent the mail box from dropping after the switch has been broken at the upper end of the chute a pivoted spring pressed latch 47 is provided, and is suitably secured to the chute, said latch assuming the position as shown in dotted lines in Fig. 5, whereby it holds the car in position at the door, when the door 10 is opened. The parties then

remove their mail and upon closing the door the weight of the mail box rotates the drum which the armature shaft permits so that the mail box gradually gravitates to the bottom of the chute to again be in position to receive the mail. At any time that the owners of the boxes desire to inspect the same they simply operate the lever 39 which will result in the box rising to the top of the chute.

This device is simple and inexpensive in construction, and while we have described the employment of an electric motor within a suitable circuit, it should be understood that a spring or other suitable motor could be employed. The device is both durable and efficient in operation and the working parts are simple of construction and readily accessible. Instead of closing the compartment at the first floor by a door, a plate Z may be secured thereover having slits Z' at each compartment, whereby the possibility of access by unauthorized persons with duplicate keys or by picking the locks is obviated. This structure is shown in Fig. 7.

And having thus described our said invention, what we claim as new and desire to secure by United States Letters Patent is:

1. The combination with a chute, of an electric motor within the upper end thereof having a projecting armature shaft, a drum upon said shaft, a cable extending from said drum, a mail box carried by said cable, a switch in circuit with said motor and having a rock arm, a manually operated lever for engagement with one end of said rock arm to close the switch and a striker carried by said mail box to open said switch, for engagement with the other end of the rock arm whereby the motor will be cut out and the weight of said mail box unwind said cable to cause the same to drop to the bottom of the chute.

2. In a device of the character described, the combination with a mail chute, of a spring-held door at the upper end of the chute, a pivoted latch extending from said door into said chute and normally engaging the wall of the chute holding the door closed, a mail box reciprocating within said chute, and a projection carried by said mail box to actuate said latch, whereby when said mail box has reached the upward limit of its travel the door will be released and spring open.

3. In a mail service apparatus, a chute, a vertically moving carrier in the chute, an electric motor for moving the carrier upwardly, a switch in circuit with the motor, a centrally pivoted arm forming a part of the switch, a manually operated lever for engagement with one end of said arm to close the circuit and start the motor, and a projection on the carrier for engagement with the other end of the arm, to break

the circuit, whereby the carrier will be released and drop to the bottom of the chute.

4. In a mail service apparatus, a chute, a carrier movable in the chute, a spring opened door in the chute, means for holding the door closed, means on the carrier for releasing the door, and a vertically pivoted member released in the chute for holding the carrier opposite said door when said door is opened.

5. In a mail service apparatus a chute, a carrier movable vertically in the chute, a spring actuated door in the chute, means

on the carrier for releasing the door, and a vertically pivoted spring pressed member in the chute, said member being held in retracted position by the door and adapted for projection into the chute to support the carrier, when the door is opened.

In testimony whereof we affix our signatures, in presence of two witnesses.

PATRICK J. SHEEHAN.
THOMAS W. McMAHON.

Witnesses:

JOSEPH P. SHEEHAN,
JOHN C. McMAHON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."