(No Model.)

G. C. TEWKSBURY.

AUTOMATIC ELEVATOR.

No. 264,793. Patented Sept. 19, 1882.

Fig. 2.

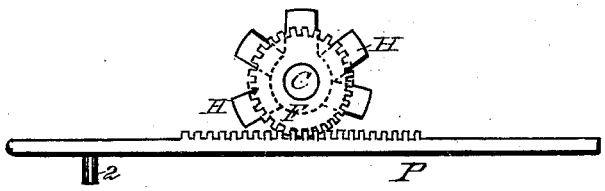


Fig. 1.

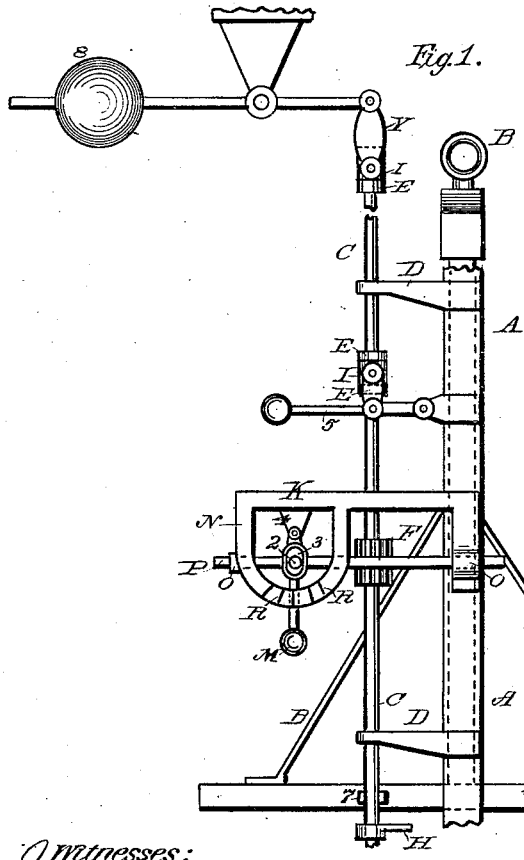
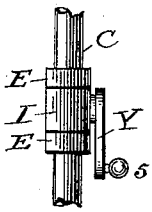


Fig. 3.



Witnesses:
L. W. Serrell
J. C. Middleton

Inventor:
Geo. C. Tewksbury,
by Ellis Clear
Attorney.

UNITED STATES PATENT OFFICE.

GEORGE C. TEWKSBURY, OF NEWARK, NEW JERSEY.

AUTOMATIC ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 264,793, dated September 19, 1882.

Application filed July 31, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE C. TEWKSBURY, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Automatic Elevators; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to an improvement in automatic lifts or elevators of the class for which Letters Patent were granted me on the 14th day of March, 1882.

The invention consists in an improved device for operating the shipping-rod and for setting the parts in position to stop the elevator automatically at its proper destination.

The invention is illustrated in the accompanying drawings, in which Figure 1 is a side elevation; Fig. 2, a plan of rack and pinion on an enlarged scale. Fig. 3 is a detail view of Fig. 1, enlarged.

The general features of this device are the same as those described in the patent referred to.

A represents a guide-bar on one side of the elevator-well, in which slides the lift or platform, it being understood that there are two of such guide-bars placed on opposite sides of the well.

C is the shipping-rod, which extends the entire length of the well, and is adapted to have vertical and rotary motion. It is guided in its vertical movement by standards D, secured to the guide-bars. It is understood that at its upper end this rod is connected with the shipping-bar by bolts in the manner described in my patents; but it has been deemed unnecessary to show these connections in this application, which refers to a different portion of the apparatus. The rod is, however, balanced by a counter-weight, 8, as shown. The starting-lever 5 is pivoted to the guide-bars A, and is connected by toggles Y to a loose collar, I, upon the shipping-rod C. This collar is held in place between two tight collars, E E, on the said rod, and it will be understood that the vertical movement of the rod C is given to it by a direct pressure of the hand on the lever 5.

Secured to the guide-bar A is a frame or standard, K, and on this standard are bearings O O, which form guides in which slides the rack P. This frame is provided with an integral curved projection or arc, N, which arc is graduated by lines R, each of which represents a single floor of the building. On the frame K is a stud or standard, 4, to which is pivoted the handle M. At a point near the pivot this handle is enlarged, and is provided with a slot, 3, which works over a pin, 2, on the rack. Motion of the handle M around the graduated arc will thus cause the rack to reciprocate horizontally and to give the necessary rotation to the rod C by means of the pinion F, which is keyed or otherwise secured thereto. Upon the rod C are tappets H, one being placed at each landing, and all of such tappets being set at different angles. On the elevator-platform B is a dog, 7, adapted to project outward to engage with the tappets on the rod C.

It will be understood that the tappets on the rod C are arranged in proper relation to the graduated scale on the arc, so that the operation of the device is as follows: The operator turns the handle M in line with the proper mark on the scale, corresponding motion being given to the rack through the pinion to the rod, which is thereby turned a sufficient distance to bring the corresponding tappet in line with the dog 7 on the elevator. The rod C is then moved vertically through the lever 5, as described, which shifts the belts and causes it to ascend or descend, as the case may be, until its course is arrested by the dog 7 striking the tappet on the rod at the proper destination of the elevator.

What I claim is—

1. In an automatic elevator, the combination, with the guide-bars A and the shipper-rod C, having the pinion F and tappets H, the frame K, secured to the guide-bar, and having the rack engaging with the said pinion, the pivoted handle M, attached to said rack, and the indicating-scale, all substantially as described.

2. The combination of the guide-bars A and the shipper-rod C, adapted to slide vertically therein, the tight and loose collars E I, and the lever 5, pivoted to the said guide-bar and connected to the loose collar I, substantially as described.

3. The frame K, secured to the guide-bar and having the standard 4, and graduated arc N, in combination with the shipper-rod having the pinion, the rack P, having the pin 2, and the slotted handle M, pivoted to the said standard, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

GEO. C. TEWKSBURY.

Witnesses:
JOHN A. OSBORN,
J. M. BADGER.