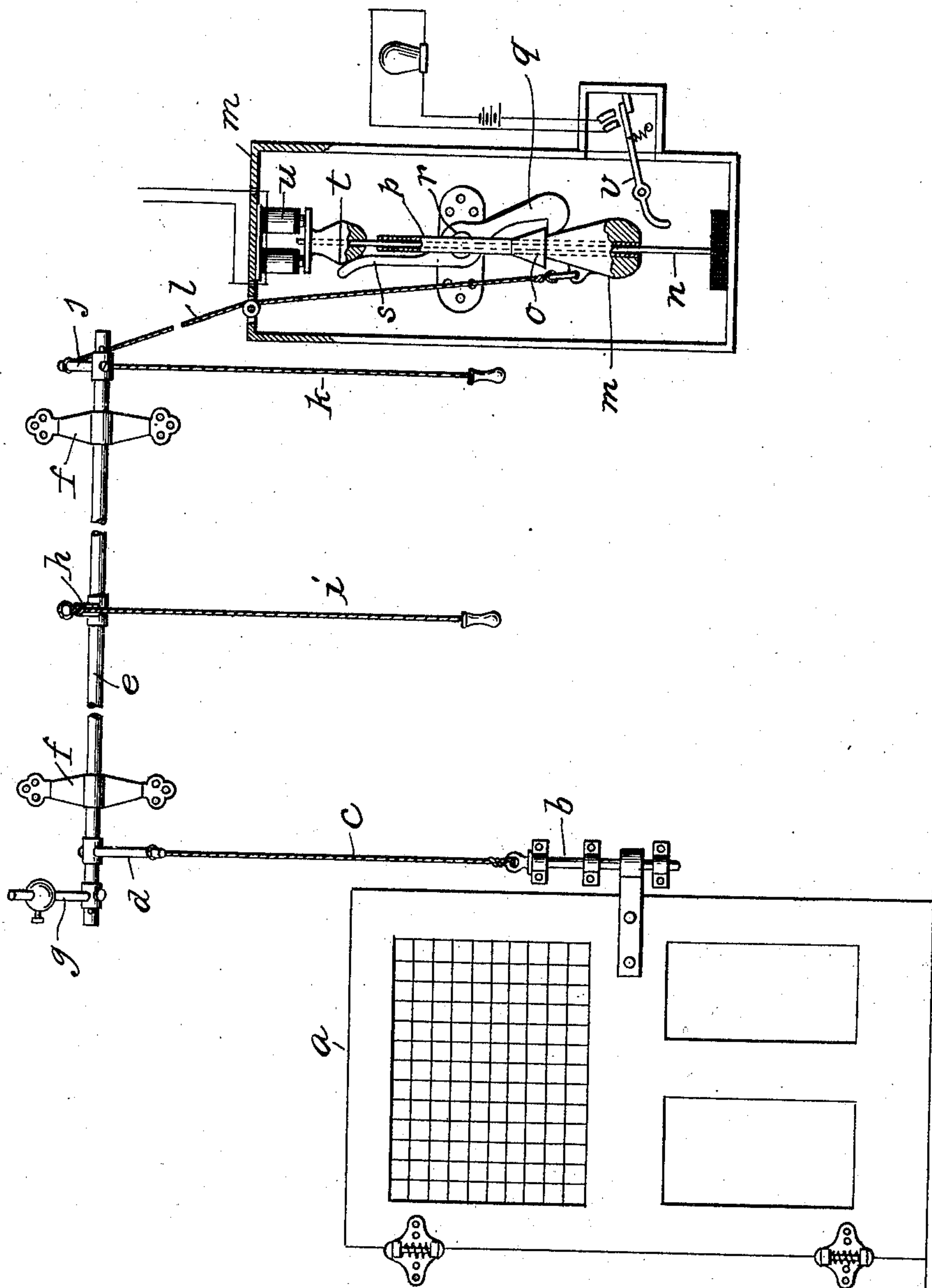


C. O. CARTER.
FIRE ENGINE HOUSE DOOR RELEASER.
APPLICATION FILED NOV. 30, 1910.

985,142.

Patented Feb. 28, 1911.



Inventor

Witnesses

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CLAYTON O. CARTER, OF HUNTINGTON, WEST VIRGINIA.

FIRE-ENGINE-HOUSE DOOR-RELEASER.

985,142.

Specification of Letters Patent.

Patented Feb. 28, 1911.

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To all whom it may concern:

Be it known that I, CLAYTON O. CARTER, a citizen of the United States, and resident of Huntington, in the county of Cabell and State of West Virginia, have invented certain new and useful Improvements in Fire-Engine-House Door-Releasees, of which the following is a full and clear specification, reference being had to the accompanying drawings, in which is represented a side elevation, partly in section, of an apparatus embodying my invention.

The object of this invention is to provide a simple apparatus for releasing a stall door in a fire engine house when the alarm calling out the engine of that house is rung, as more fully hereinafter set forth.

In the drawing *a* designates a door of a stall which may be hung on spring hinges to cause it to open automatically when released, and which is held closed by a vertically slidable bolt *b*. This bolt *b* is attached to a wire or cord *c* which at its upper end is attached to the outer end of an arm *d* projecting laterally from the horizontal rock shaft *e*, this rock shaft being journaled in a suitable location in suitable brackets or hangers *f*.

An adjustable counter-weight *g* is attached to the rock shaft at a suitable point and is adapted to normally tend to rotate the shaft in such direction as to swing the arm *d* downwardly. At one or more points along the shaft *e* is attached an arm *h* which projects toward the same side as the arm *d* and is provided with a depending pull cord or wire *i*. At one or more additional points along the shaft is provided another arm *j* projecting laterally in the opposite direction from the arm *h*, this arm *j* being also provided with a depending pull cord or wire *k*. It will be observed that by means of the pull cords *i* and *k* the rock shaft may be rocked in either direction and that when the cord *i* is pulled down the lock bolt *b* is free to fall by gravity into locking position.

Attached to the arm *j* is another cord or wire *l* which depends through a hole in the top of a suitable box *m*, located at a convenient place in the engine house. This cord *l* is attached to a weight *m* slidable upon the vertical rod *n* within the box, and near the upper end of the weight *m* is provided a catch *o* having a beveled upper surface and above which extends a tubular portion *p* of the weight. Engaging the catch *o* is a latch lever *q* which is weighted sufficiently to nor-

mally swing against the weight, the pivot *r* of this latch lever being located at a point above its lower end. Projecting from the pivot of the latch lever is a finger *s* which extends upwardly substantially parallel with the rod *n*. Sliding on the upper end of the rod *n* is another weight *t* whose lower end is rounded or beveled so that when this weight *t* falls upon the rod *n* it strikes the finger *s* and swings the catch *p* away from and out of engagement with the main weight *m*. This supplemental weight *t* is normally held up by an electro-magnet *u* which is in circuit with the usual alarm mechanism so that when the alarm is rung this magnet will be deenergized.

It will be observed that by the deenergizing of the magnet *u* by the ringing of the alarm or by any other means (the means for this being immaterial), the supplemental weight *t* will fall and strike the finger *s* and release the main weight, and at the same time the weight *t* will come to rest on top of the sleeve *p* and add its weight to the main weight *m*. The combined weight of the two weights will pull down the cord *l*, rock the shaft *e* and withdraw the lock bolt *b* and thus release the door. In restoring the parts to normal position, it is simply necessary to pull on the cord *i* or cord *c* and thus raise the main weight, whereupon the main weight will rise until it engages and is held up by a latch *q* and the supplemental weight *t* is raised by the tube *p* until it is caught magnetically by the magnet, when the device will be ready for another operation. It will be observed that by reason of the flexibility of the connection between the arm *j* and the weight *m*, the rock shaft may be rotated by means of pull cord *k* without affecting the mechanism in the box whenever it is desirable to withdraw the lock bolt *b* without operating the tripping mechanism in the box. If desired the falling of the weight *m* may be utilized to switch in the light circuit, as shown at the right hand side of the weight *m*, the letter *v* showing a switch lever in the path of the weight.

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

1. In combination, a rock shaft and means connected thereto for locking and unlocking a door, means connected to the shaft for rocking it in either direction by hand, and automatic means for rocking the shaft in a

direction to unlock the door, said means embodying a vertically slidable main weight and flexible means connecting it with the rock shaft, said weight being provided with
5 a catch and an extension extending above said catch, a latch lever normally tending to engage said catch and provided with an upward extending tripping finger, a supplemental weight and means for temporarily
10 suspending it above and in the path of said tripping finger and said extension of the main weight, for the purpose set forth.

2. A means for automatically opening doors consisting of a door bolt operating
15 means, automatic means connected thereto,

said automatic means comprising a main weight, a latch normally engaging the same to hold it up and provided with a trip finger, a supplemental weight, and means for suspending said supplemental weight above the trip finger and the main weight substantially as set forth. 20

In testimony whereof I hereunto affix my signature in the presence of two witnesses this 29 day of November 1910.

CLAYTON O. CARTER.

Witnesses:

DOUGLAS W. BROWN,
J. H. PATTERSON.

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