

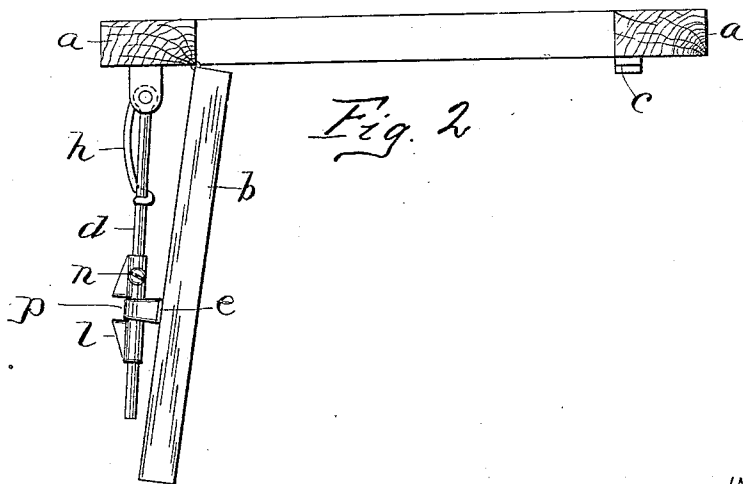
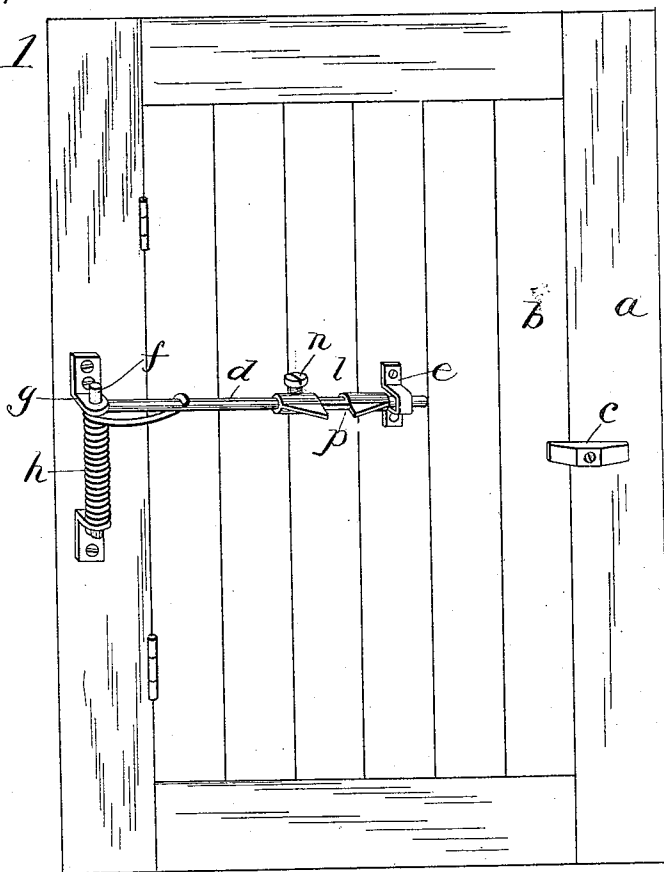
(No Model.)

W. J. WEYMOUTH.
DOOR OPENING DEVICE.

No. 511,668.

Patented Dec. 26, 1893.

Fig 1



WITNESSES:

teleBundue
C. M. Werli

INVENTOR
W. J. Weymouth
BY *O. E. Duff*
ATTORNEY.

UNITED STATES PATENT OFFICE.

WILLIAM J. WEYMOUTH, OF HAMPTON, VIRGINIA, ASSIGNOR OF ONE-HALF
TO F. W. SHEILD, OF SAME PLACE.

DOOR-OPENING DEVICE.

SPECIFICATION forming part of Letters Patent No. 511,668, dated December 26, 1893.

Application filed June 8, 1893. Serial No. 476,916. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. WEYMOUTH, of Hampton, in the county of Elizabeth City and State of Virginia, have invented certain
5 new and useful Improvements in Door-Operating Devices; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable
10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which
15 form part of this specification.

This invention relates to certain improvements in devices for operating doors.

The object of the invention is to provide an improved device exceedingly cheap, simple and durable in construction for automatically
20 swinging open doors when released and holding them in the desired position.

The invention consists in certain novel features in construction and in combination of parts more fully described hereinafter and particularly pointed out in the claims.

Referring to the accompanying drawings: Figure 1, is a perspective view showing the door closed. Fig. 2, is a top plan view of the door and operating device showing the door
25 swung open.

In the drawings reference letter *a*, indicates a door frame of any building or structure.

b, indicates the door suitably hinged to the door frame in an ordinary or usual manner.

Any suitable means are provided to lock the door in its closed position; the means
35 here shown consisting of the button *c*. However, I do not wish to limit myself to any particular locking mechanism as any mechanism desired can be employed for this purpose.

Any suitable spring device is provided to constantly tend to swing the door open when
40 locked so that the moment the lock is opened or released the door will be swung to the open position.

The device for opening the door, preferably consists of a lever *d*, fulcrumed at one end to supports carried by the door frame and extending horizontally along the outer side of
45 the door through a rigid loop *e*, projecting from the outer face of the door. This lever or arm is preferably, fulcrumed on a vertical

rod *f*, mounted in brackets *g* on the door frame. A stiff spring *h*, is coiled on this rod and is provided with a projecting end engaging the inner side of the lever between its
55 ends with a constant tendency to throw the lever outwardly and thereby throw open the door through the medium of the lever engaging the inner surface of the loop or eye before mentioned. This spring is formed of
60 sufficient strength to throw the door open suddenly. As the door swings open when the lock has been released the loop or eye rigid with the door moves longitudinally on said lever toward the fulcrumed end of the lever.
65

Suitable means are provided to detachably hold the door in open position. These means preferably consist of a suitable catch *l*, on the lever at a suitable distance from the end thereof to receive the loop or eye and hold
70 the same. This catch preferably consists of a tube longitudinally movable on the lever and provided with clamping means as a set screw *n*, so that the tube can be adjusted longitudinally on the lever to hold the door
75 open at various positions. This tube is provided with a central notch or opening *p* of a size to receive the outer side of the loop and hold the same rigid against moving longitudinally on the lever. The edges of the said
80 flange are inclined upwardly to said notch. Hence when the door swings open and the loop moves longitudinally on the lever it slides up the inclined edge of said stop and drops into the notch thereof, thereby holding
85 the door open in the desired position. To accomplish this the loop is formed of sufficient length to permit a limited movement on the lever within the loop and from the door so that when it is desired to close the door the
90 operator has merely to press the lever in toward the door against tensions of the spring and thereby press the catch in and out of engagement with the notch and then when the loop has passed from engagement with the
95 notch the lever can be released and the door continued in its movement until closed and locked.

This invention is of great utility and capable of many uses, particularly in fire engine
100 houses where it can be employed to hold the door open while the horses or the fire engine

pass out. The operator has merely to release the door and it will automatically fly open and lock in the open position. This mechanism can also be employed for barn doors, gates or in other connections.

It is evident that various changes might be made in the forms, constructions and arrangements of the parts described without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the exact construction shown but consider myself entitled to all such changes that fall within the spirit and scope of my invention.

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

1. A door opening device comprising a loop on the door, a lever fulcrumed to the door frame and passing loosely through said loop, a spring constantly tending to throw said le-

ver outwardly, and a longitudinally adjustable catch on the lever, substantially as described.

2. A door opening device comprising the loop rigid on the door, the vertical rod supported on the door frame, the lever fulcrumed on said rod and extending along the door through said loop, the coiled spring on said rod and constant pressure on said lever to throw the same to open the door, and the adjustable catch on said lever comprising the tube having the clamping means and the notched inclined flange.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WILLIAM J. WEYMOUTH.

Witnesses:

WALKER WATTS,
E. S. JONES.