

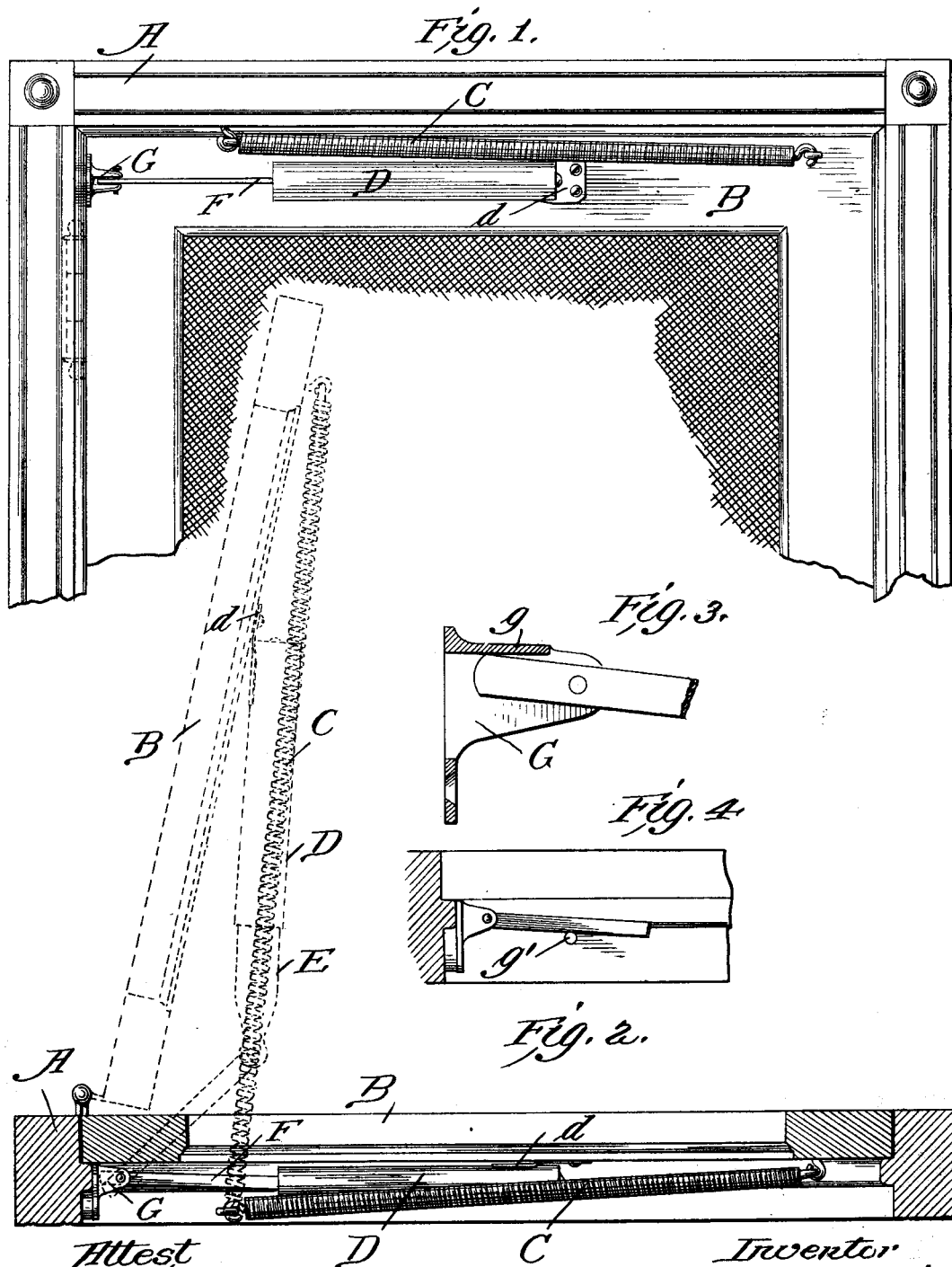
No. 675,903.

Patented June 11, 1901.

S. W. PEREGRINE.  
PNEUMATIC DOOR CHECK.

(Application filed July 18, 1900.)

(No Model.)



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# UNITED STATES PATENT OFFICE.

SEYMOUR WILSON PEREGRINE, OF PORTLAND, MAINE.

## PNEUMATIC DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 675,903, dated June 11, 1901.

Application filed July 18, 1900. Serial No. 24,067. (No model.)

*To all whom it may concern:*

Be it known that I, SEYMOUR WILSON PEREGRINE, a citizen of the United States, residing at Portland, Maine, have invented certain new and useful Improvements in Pneumatic Door-Checks, of which the following is a specification.

My invention relates to improvements in pneumatic door-checks; and the object of the invention is to provide an extremely simple form of check capable of being produced at an extremely low cost and which will occupy but little space, whereby it is especially adapted for application to screen-doors. There is ordinarily but little space between a screen-door and the main door, which prevents the use of most of the checks on the market unless they are applied to the outside of the door, which is very undesirable. My improved check, on the contrary, occupies such little space that it can always be applied to the door-frame between the main door and screen-door. While especially adapted for screen-doors, it is of course equally adapted for doors of all kinds.

I have illustrated the invention in the accompanying drawings, in which—

Figure 1 is a front view of the portion of a door-frame and door, showing the check and spring attached. Fig. 2 is a bottom plan view of the same. Fig. 3 is a detail of the stop, and Fig. 4 is a modification thereof.

In the figures, A represents the door-frame, and B the door to which the check is applied.

C is a helical spring, one end of which is suitably attached to the door near the free edge thereof, while the other end is attached to the frame or a bracket G, as in Fig. 4, near the hinge, whereby on the opening of the door the spring is strained in the ordinary manner. This spring is merely representative of any desired form of spring and forms no part of the present invention.

D represents a cylinder which has its closed end pivotally connected to the door, and E is a piston sliding therein and adapted to have a free outward movement, but to be resisted by the air within the cylinder, so as to prevent the sudden closing of the door.

F represents a link which is at one end pivotally connected to the piston-rod, while the

other end is pivotally connected to a bracket G on the door-frame, the link when the door is closed extending in a line with the cylinder and piston, whereby the only space required by the parts is a space equal to the diameter of the cylinder, which need not be more than an inch and three-eighths. By reason of this link connection the door is permitted to swing beyond a right angle, the parts when the door is open occupying the position shown in dotted lines in Fig. 2. In the open position of the door it will be seen that the link and piston-rod lie at an angle to each other, and in order to check the link before the door is closed and insure the proper return of the piston and of the cylinder I preferably provide a stop to limit the movement of the link. This may be in the form of an abutment *g* on the bracket, as shown in Fig. 3, or instead may be a projection from the door-frame, as shown at *g'* in Fig. 4.

I prefer to connect the cylinder to the door by means of a sheet-metal plate *d*, one end of which is soldered or brazed to the cylinder, while the other end is secured by screws or the like to the door, the plate having sufficient elasticity to permit the necessary hinging of the cylinder.

Preferably the hinge connection of the cylinder to the door is such that there is a tendency for the cylinder to swing outward from the door, as shown in dotted lines. The result of this is that as the door closes the link swings freely on its pivot, permitting the door to swing freely and quickly until the link is brought to rest by its stop, when the door is checked and closed gradually by the piston slowly entering the cylinder.

Having thus described my invention, what I claim is—

1. In combination with the door and door-frame, a cylinder connected to the door, a piston and piston-rod therein, a single link pivotally connecting the piston-rod with the door-frame and a stop for limiting the transverse movement of the link with relation to the door-frame, substantially as described.

2. In combination, the door-frame and spring-pressed door, a cylinder having one end hinged to the door, the piston and rod, a bracket secured to the door-frame, a single

link connecting the piston-rod and bracket and a stop on the bracket for limiting the movement of the link, substantially as described.

- 5 3. In combination with the door-frame and spring-pressed door, a cylinder having a sheet-metal plate secured to the end thereof with means for fastening said plate to the door, the piston and piston-rod and a link connecting

the rod and door-frame, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SEYMOUR WILSON PEREGRINE.

Witnesses:

THOMAS L. TALBOT,  
LENA B. DECELLE.