(No Model.)

J. MERREDITH.

DOOR CHECK.

No. 359,223. Patented Mar. 8, 1887.

Fig. I

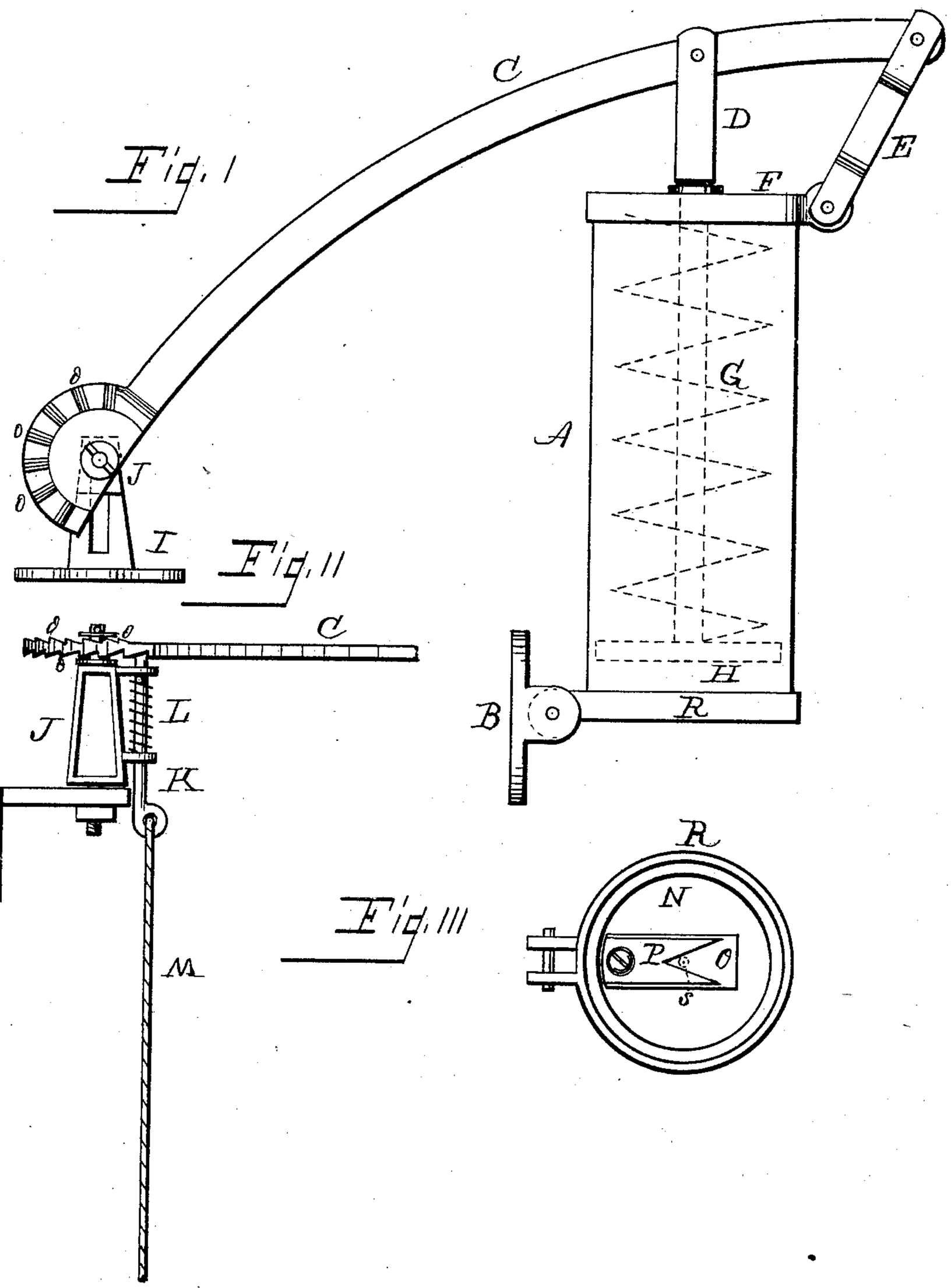

Fig. II

Fig. III

Witnesses
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UNITED STATES PATENT OFFICE.

JOHN MERREDITH, OF DAYTON, OHIO, ASSIGNOR TO JOHN G. SPENGLER, OF SAME PLACE.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 359,223, dated March 8, 1887.

Application filed June 28, 1886. Serial No. 206,557. (No model.)

To all whom it may concern:

Be it known that I, JOHN MERREDITH, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a certain new and useful Improvement in Door-Checks; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable 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 form a part of this specification.

My invention relates to improvements in door-checks, the several features of which will be fully hereinafter set forth.

The objects are to produce as nearly as possible a uniform pressure against the door, and by an adjusting device hold the door at different positions. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure I is a top view or plan of the door-check. Fig. II is a side view of the adjusting device. Fig. III is an inner view of the lower cap.

Like letters designate like parts throughout the several views.

The door-check in many features is like those in use.

A is a tube, to the top of which is screwed the cap F and to the bottom the cap R. In the center of the top cap is an orifice for the piston-rod D, and on the edge of the same is an ear, to which the link E is attached.

To the upper end of the piston-rod is pivoted the arm C, and the piston-head H is attached to the lower end. To make the piston work tightly, it is packed with leather in the usual manner. The dotted lines at G show the position of a spiral spring, which bears against the piston-head and the cap. The link E connects the arm C to the cap. The fastening-plate B is pivoted to ears of the lower cap. This plate is fastened by wood-screws to the facing over the door, and on said plate the cylinder freely moves. The fastening-plate I is attached to the door. To the face of this fastening is attached the stud J, the lower threaded end occupying a slot of the fastening-plate, and is secured by a nut. Projections of this stud support the dog K. The upper end of this stud is pivoted in the arm C, and the pivot is secured by a pin over a washer. The end of the arm C is provided on its upper and lower surfaces with a series of notches, *o*, which are engaged by the aforesaid dog. The spiral spring L holds the dog in engagement with the circular notched end of arm C. This holds the arm in a fixed relation to the fastening I. This device serves to hold the door open in different positions. The object of the two series of notches *o o* is the provision for doors opening right and left, in which case the stud is reversed on the arm.

Fig. III is an inner view of the lower cap, exhibiting the air-valve. In the center is a small orifice, *s*, indicated by a circular dotted line. Over this is placed a piece of leather, O, and on this leather is placed the notched brass plate, and these parts are attached to the cap by a screw. The use of this valve is to admit air to the cylinder when the piston is moved, and the admitted air serves as a cushion in the movement of the piston as directed by the spiral spring or inwardly.

The fastening-plates supporting the arresting device are attached as aforesaid, and the operation is thus: The door is held open by the arm, and if the door is closed by the hand or by the wind, a rapid movement is prevented by the action of the spiral spring, which arrests the movement of the arm, and consequently the door, and a slamming is thereby prevented, and injury to the door or glass is thereby prevented. The relation of the arm is such to the link and piston-rod that when the door is closed the arm and link are brought so near on a line that the force of the spring exerted on the arm is slight compared with the resistance of the spring, and in this manner the force of the spring as affecting the arm is somewhat equalized. The relative position of the stud to the operative arm is effected by the dog carried by said stud engaging one of the series of notches on the end of the arm. The dog is drawn out of engagement by the cord M when it is desirable to change the position of the door. This device does not admit of much change of position as

to the door, but serves for a limited adjustment of the position thereof.

What I claim, and desire to secure by Letters Patent, is—

1. In a door-check, the combination of the hollow cylinder A, the spring-actuated piston with the arm C, pivotally attached to said cylinder-cap, link E, piston-rod D, fastening I, and adjustable stud J, with spring-actuated dog K, substantially as set forth.

2. The combination of the arm C, having a series of notches, *o*, on the upper and lower faces of the outer end thereof, the stud J, carrying the dog K, and fastening I, to hold the door open in different positions, substantially as set forth.

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

JOHN MERREDITH.

Witnesses:
B. PICKERING,
B. A. PICKERING.