

W. ALLEN.
DOOR SPRING.

No. 105,025.

Patented July 5, 1870.

Fig. 1.

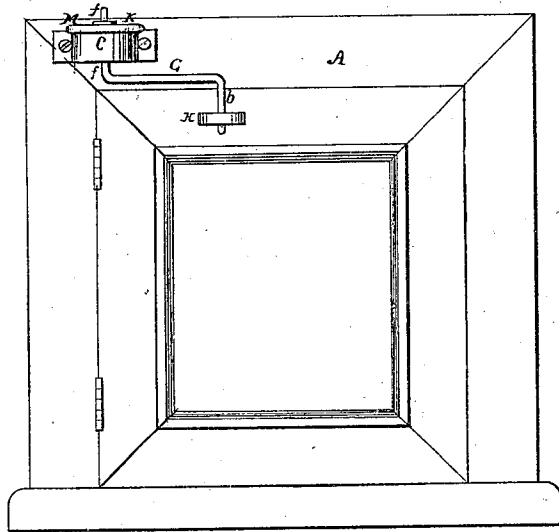
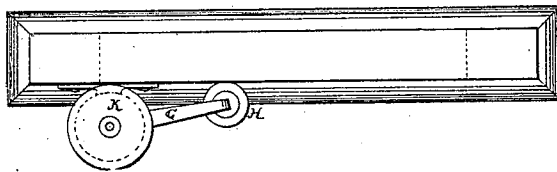


Fig. 2.



Witnesses:
N. A. Finckel
James L. Norris

Inventor:
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Attys

UNITED STATES PATENT OFFICE.

WARREN ALLEN, OF OSWEGO, NEW YORK.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **105,025**, dated July 5, 1870.

To all whom it may concern:

Be it known that I, WARREN ALLEN, of Oswego, in the county of Oswego and State of New York, have invented a new and useful Improvement in Door-Springs; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of my improved door-spring as attached to a door. Fig. 2 is a top or plan view of the same.

This invention relates to certain parts hereinafter to be described, and is designed as an improvement upon the patent of Charles A. Peck, dated December 29, 1857, of which patent I am now sole owner; and it consists in the use of a rubber roller attached to one arm of a double-armed lever in such a manner as to operate directly upon the surface of the door, as will hereinafter be described.

A in the drawings may represent the frame of the door; B, the door; C, the case or box containing the coiled spring; G, the lever, formed with arms on its opposite sides at angles to each other; H, roller provided with rubber.

A is the frame-work of a door, to which is secured the case or box C, containing a coiled spring. This case or box C is provided or otherwise formed with a metallic plate, *a*, through which the case or box is connected to the said frame-work by screws or bolts.

K is a coiled spring, inclosed within the case or box, attached at one end to a plate on the inner circumference, or to the case or box itself, the other end passing through a slot or otherwise adjustably secured to the arm *b* of the angled lever G, so as to increase the tension of the spring as it loses its elasticity from long usage.

G is the lever, formed with arms *f* *b*, arranged at angles on its opposite sides, the arm *f* designed as an axis for the coiled spring K, inclosed within the case or box C, while the arm *b* is intended to close the door, being provided with a roller covered with elastic or other suitable material to prevent in its path the marring of the door.

M is the cap of the box or case, retained firmly in its proper position by means of a nut or pin passing through the angled arm *f* of the lever G. The construction of the lever G, provided with its roller in the form shown and described, allows all slots, plates, and levers on the door to be dispensed with.

It will be thus seen that I have constructed a neat, substantial, and effective device for closing doors, cheap in its construction, and readily applied to the frame-work or casing of any door by the mere use of two or three screws. By the employment of the lever formed in one piece with the arms *f* and *b*, the former serving as an axis for the support of the spring, while the other carries a rubber roller in such a manner that the rubber roller in its path, acting directly on the door, does not deface or injure its surface, and at the same time dispensing with all guides, rails, or plates on the door.

It will also be distinctly understood that I do not claim to have invented a coiled spring inclosed within a box or case for closing doors, as such has heretofore been accomplished, and is shown in the patent of Chas. A. Peck, of which I am sole owner by assignment.

I am aware that the general arrangement of the parts in themselves is not new. Such I do not claim; but,

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

The single double-armed lever formed in one piece, one arm of which serves as an axis for the coiled spring arranged within a case, the other forming a journal for the wheel provided with a rubber band, which operates directly upon the surface of the door, all arranged and operating as herein described.

To the above I have signed my name this 31st day of March, 1870.

WARREN ALLEN.

Witnesses:

HIRAM HUBBELL,
MANNISTER WORTS.