O. SEELY.
Door-Spring.

No. 212,272. Patented Feb. 11, 1879.

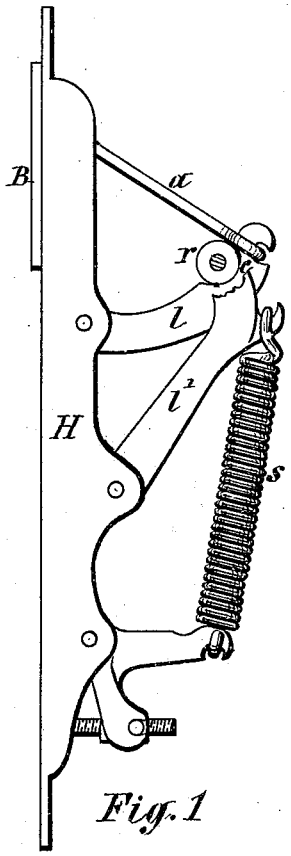

Fig. 1

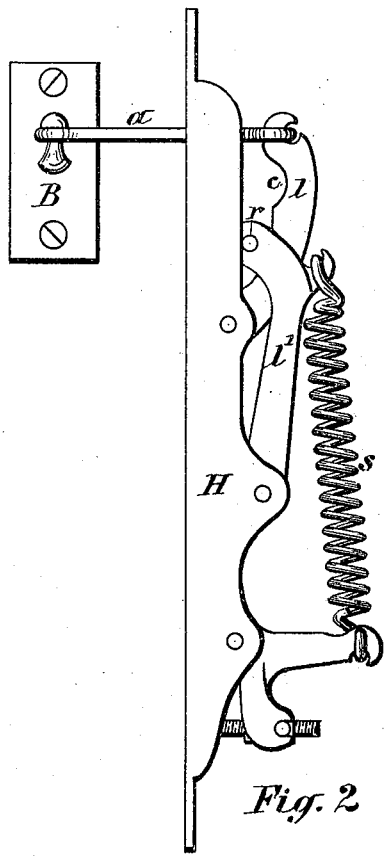

Fig. 2

Witnesses:
E. Bendixen
A.W. Smith

Inventor
Obadiah Seely
per E. Lauss Atty.

UNITED STATES PATENT OFFICE

OBADIAH SEELY, OF SYRACUSE, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILLIAM H. PHELPS, OF SAME PLACE.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **212,272**, dated February 11, 1879; application filed June 27, 1877.

To all whom it may concern:

Be it known that I, OBADIAH SEELY, of the city of Syracuse, in the State of New York, have invented new and useful Improvements in Door-Springs, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to improve the door-spring for which I obtained Letters Patent No. 204,382, May 28, 1878, so as to render it more durable and effective in its operation; experience having proved that the V-shaped cam, constructed and combined with the coupling-lever as described in the said Letters Patent, is unable to resist the strain it is subjected to, and generally breaks at its fulcrum, or junction of its two limbs. To obviate this defect and render the device more effective in its operation, I substitute for the said V-shaped cam a lever, pivoted at one end to the hanger at the rear of the coupling-lever, and having connected to the rear of its opposite end the spring, and to the front of said end a friction-roller, by which it engages the front of the coupling-lever near its connection with the coupling-bar, all constructed and arranged substantially as hereinafter fully described.

In the accompanying drawings, Figure 1 is a side view of my improved door-spring in position when the door is closed, and with a portion of one of the levers broken away to show the friction-roller connected therewith; and Fig. 2 shows the same in position when the door is opened.

Similar letters of reference indicate corresponding parts.

H is the hanger, to which the spring mechanism is attached, and by which it is secured to the door, the apparatus being countersunk in the hinged edge of the door to bring the outer surface of the hanger flush therewith. B is the hook or other fastening, secured in the rabbet of the door-jamb, with which hook the spring mechanism is connected by the bar *a*, coupled at one end with the said hook, and at the opposite end with the end of a lever, *l*, which is pivoted at its opposite extremity to the hanger H. Back of the said lever is a second lever, *l'*, likewise pivoted to the hanger, and connected at the rear of its upper end to a spiral or other form of spring, whereby it receives a rearward force.

In front, and nearly opposite the spring, the lever *l'* is extended forward, and provided at the end with a friction-roller, *r*, with which it engages the front of the lever *l*, and imparts to same the rearward force aforesaid.

The levers *l l'* are arranged in such relative positions that when the door is closed the lever *l* will stand at an angle of less than ninety degrees from the face of the hanger, and the lever *l'* at a still more acute angle, and engage the former at its extremity where connected with the opposing part of the apparatus, thus obtaining the greatest purchase upon the same when the door is closed.

In opening the door the lever *l* is drawn toward the face of the hanger. This, bringing with it the lever *l'*, causes the end of same, with its friction-roller *r*, to traverse toward the pivot of the former, and thus gradually loosens its purchase upon the same.

For the purpose of still better holding the door in its closed position, the lever *l* is provided at the front of its upper end with a recess, *c*, which, when the door is closed, the friction-roller enters.

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

The combination and arrangement of the lever *l*, pivoted at one end to the hanger H, and connected at the opposite end with the coupling *a*, the lever *l'* at the rear of lever *l*, pivoted at one end to aforesaid hanger, and extended at the opposite end to the front of lever *l*, and provided thereat with friction-roller *r*, and the spring *s*, connected with the rear of lever *l'*, substantially in the manner specified and shown, for the purpose set forth.

OBADIAH SEELY.

Witnesses:
E. BENDIXEN,
A. W. SMITH.