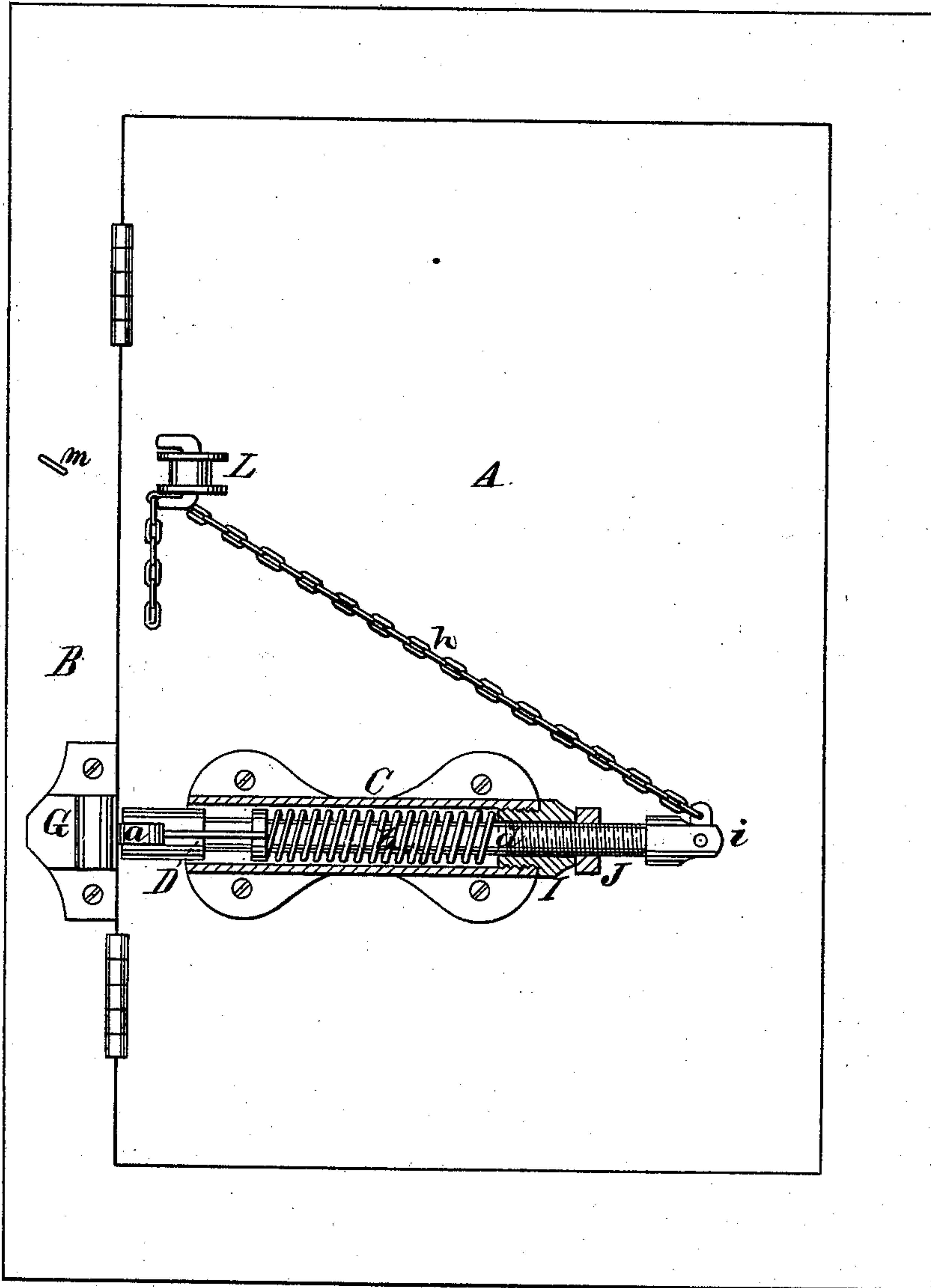


J. G. EDGELL.

DOOR-SPRING.

No. 176,940.

Patented May 2, 1876.



WITNESSES

Mary P. Utley  
C. R. Searle

INVENTOR,

James G. Edgell.  
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ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES GEORGE EDGELL, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF HIS RIGHT TO GEORGE W. EVANS.

## IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **176,940**, dated May 2, 1876; application filed March 25, 1876.

*To all whom it may concern:*

Be it known that I, JAMES GEORGE EDGELL, of Brooklyn, in the county of Kings and State of New York, have invented a new and valuable Improvement in Reversible Door-Springs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

The figure of the drawings represents a longitudinal central sectional view of my reversible door-spring as applied.

The nature of my invention consists in the novel construction, combination, and arrangement of parts in a reversible door-spring, as will be hereinafter more fully set forth and definitely claimed.

In the annexed drawing, A represents a door, hinged in any ordinary manner to the frame B. On the door A is secured, in a horizontal position, a cylinder, C, which carries within it a plunger, D, feathered in the cylinder, so that it cannot rotate or turn therein. The cylinder C is arranged with one end near the hinged side of the door, and through this end the plunger D is made to project by means of a spring, *b*, surrounding a rod, *d*, projecting from the plunger through the opposite end of the cylinder. The outer end of the plunger D is forked, and has a roller, *a*, mounted thereon, which rides against and over a casting, G, secured to the frame B. The spring *b* bears against the inner end of the plunger, and against a hollow screw-plug, I, inserted in the end of the cylinder, the rod *d* passing through said plug. By means of this screw-plug the tension of the spring is easily regulated. On the end of the rod *d*, against the screw-plug, is screwed a jam-nut, J, as shown.

In opening the door, the roller *a* rides over the convex casting or plate G, and has a tendency to close the door as soon as the pressure thereon is removed, except if the door is opened outward at right angles, when the roller will have passed around the casting, and has a tendency to hold the door open. As soon, however, as the door is turned away from this point, the tendency is to close the door.

On doors that have projecting hinges, the cylinder C is reversed, and a chain, *h*, attached by means of a screw-cap, *i*, to the end of the rod *d*, and this chain passed under a pulley, L, mounted near the inner end of the door, and the chain hooked to a hook, *m*, on the door-frame for the same purpose.

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

1. The cylinder C, with interior feathered plunger D, having the roller *a* and rod *d*, in combination with the spring *b*, regulating-screw I, jam-nut J, and convex casting or plate G, substantially as described, and for the purpose set forth.

2. The cylinder C, spring-plunger D, regulating-screw I, jamb-nut J, and convex casting or plate G, constructed as set forth, in combination with the screw-cap *i*, chain *h*, pulley L, and hook *m*, substantially as described, and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES GEORGE EDGELL.

Witnesses:

S. W. LAIDLER,  
A. I. HEATH.