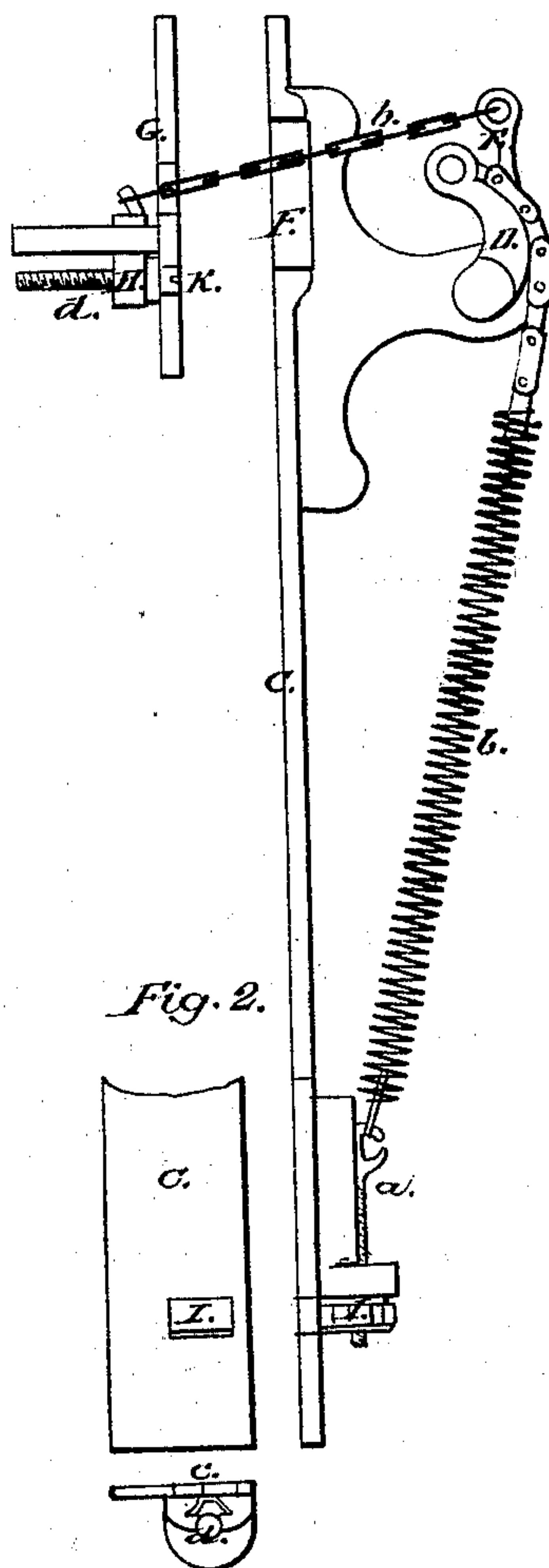
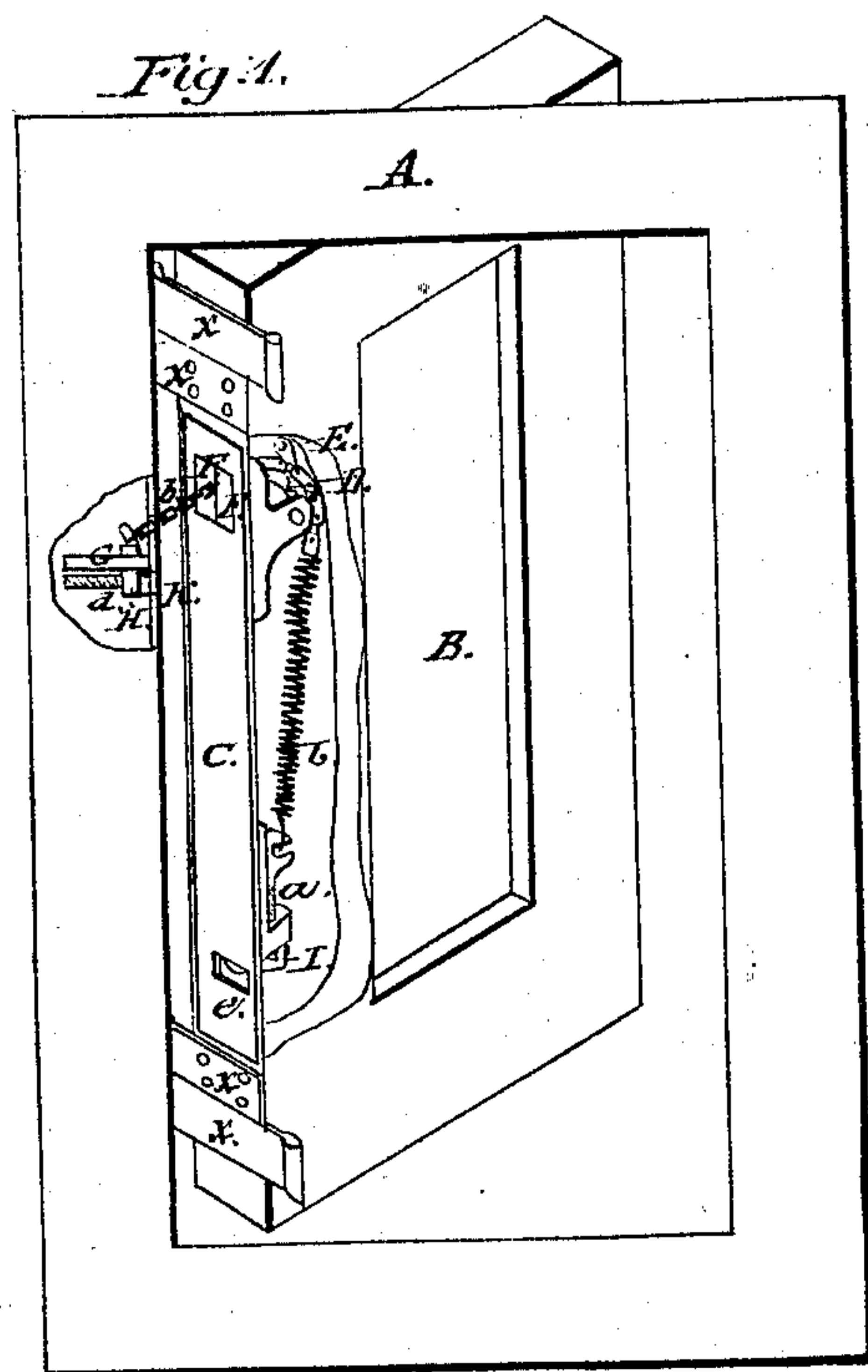


*Door Spring.*

No. 88,625.

*Patented Apr. 6, 1869.*



Witnesses:  
Egbert Hammon  
George A. Cool

Inventor:  
William Eifillan

# United States Patent Office.

WILLIAM GILFILLAN, OF SYRACUSE, ASSIGNOR TO HIMSELF AND MARTIN T. VAN HORN, OF NEW YORK, N. Y.

*Letters Patent No. 88,625, dated April 6, 1869.*

## IMPROVEMENT IN DOOR-SPRING.

The Schedule referred to in these Letters Patent and making part of the same.

*To all whom it may concern:*

Be it known that I, WILLIAM GILFILLAN, of Syracuse, in the county of Onondaga, and State of New York, have invented a new and useful Improved Door-Spring; and I do hereby declare the following to be a full, clear, and exact description thereof, sufficient to enable those skilled in the art to which my invention appertains to fully understand and use the same, reference being had to the accompanying drawings, forming part of this specification, and in which—

Figure 1 is a perspective view of a door and door-frame, to which my improvements are applied, parts of the door and frame being broken away, to show the mechanism, and

Figure 2 is a side view of the spring and its attachments, apart from the door.

My invention consists in the construction, arrangement, and combination of parts, as hereinafter set forth.

Similar letters of reference in the drawings indicate like parts in the several figures.

A, in the drawings, represents a door-frame, in which the door B is hung, by means of double-action hinges *x x*, which permit the door to open either way.

The door and frame are mortised, to receive the plates C C, with their attachments, composing the door-spring.

On the back of the plate C, near the top, a bracket or brackets are formed, to support the arm E, to which an eccentric-lever, D, is attached.

*l* represents the spring, connected, at its upper end, with a chain, *c*, secured to the lever D.

Near the lower end of the plate C, on the back, is

formed a lug, through which the threaded shank of a hook, *a*, is fitted. The lower end of the spring *l* is connected to this hook *a*.

*I* represents a screw-nut, fitted on to the lower end of the shank of hook *a*. By turning this nut, through an opening in the plate C, as shown, the tension of spring *l* can be regulated.

A chain, *b*, is attached to the end of the arm E, said chain passing between two friction-rollers, F F, placed in an opening in the plate C, and allowing the door to be swung in either direction.

In the casing of the door, and opposite to the friction-rollers F F, I secure a plate, G, provided, on its rear side, with two lugs, or ways, for the purpose of holding the nut H.

To this nut H, the chain, *b*, is attached, said chain being adjusted to the proper length by means of the screw *d*, passing through the nut H, and operated, by means of a screw-driver, through an opening, *k*, in the face of plate C.

Constructed as above described, a simple and effective spring is produced for double-acting doors.

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

The plate C, with eccentric, D, and arm E; the chains, or cords *b c*, the spring *l*, and adjustable hook *a*, and nut H; all combined and arranged to operate substantially as herein described.

WILLIAM GILFILLAN.

Witnesses:

EGBERT HINMAN,  
OBADIAH SEELY.