

L. J. HIGGINS.
Door-Springs.

No. 137,367.

Patented April 1, 1873.

Fig. 1.

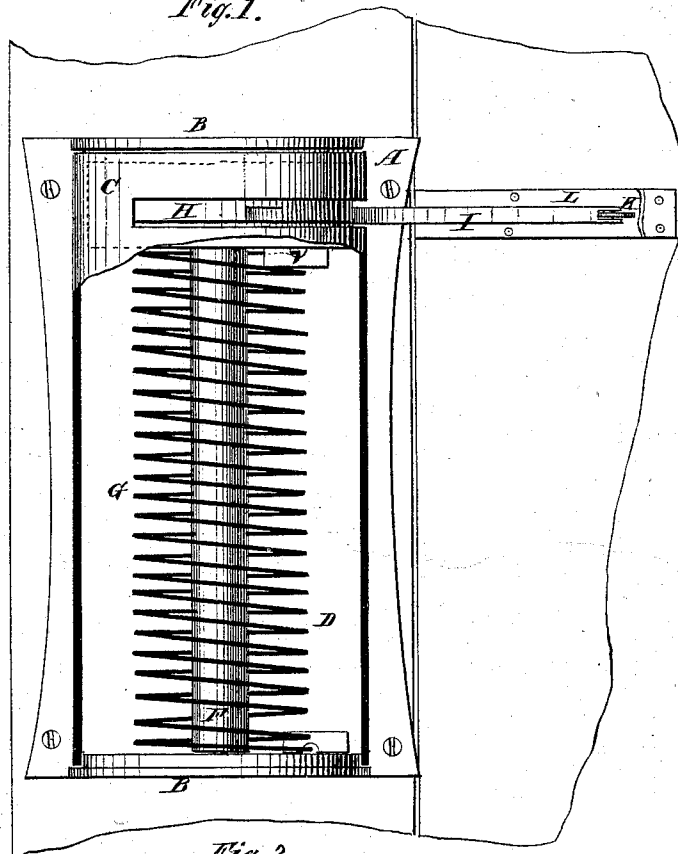
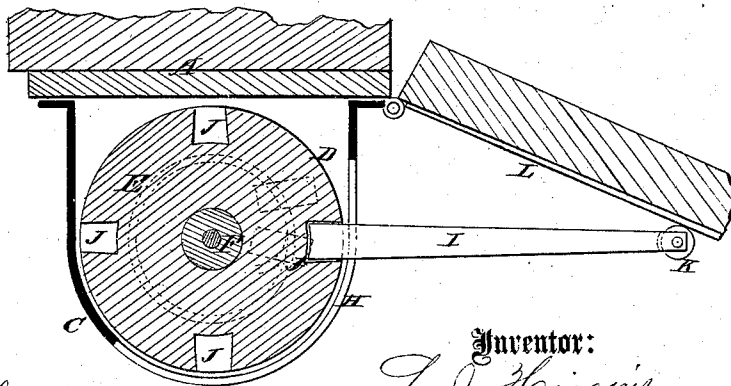


Fig. 2.



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UNITED STATES PATENT OFFICE.

LEONARD J. HIGGINS, OF MOUNT DESERT, MAINE.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **137,367**, dated April 1, 1873; application filed January 11, 1873.

To all whom it may concern:

Be it known that I, LEONARD J. HIGGINS, of Mount Desert, in the county of Hancock and State of Maine, have invented a new and useful Device for Closing Doors and Gates, of which the following is a specification:

The invention relates to springs for closing doors and gates; and consists in the mode of applying the arm or lever which connects the spiral spring-shaft with the door or gate, said arrangement allowing the tension of the spring to be varied to prevent slamming, or to insure an entire closing of the door or gate.

Figure 1 is a top view, with the case broken away to show the spring and lever-wheel. Fig. 2 is a cross-section through the lever-wheel.

Similar letters of reference indicate corresponding parts.

A is the bed-plate, with ends B B and a semicircular case, C, over the ends, thus making a shoulder, D, in which is placed the lever-wheel E, shaft F, and spiral spring G. The shaft is supported between the end B B by means of pins, as indicated in Fig. 2. H is a transverse slot in the case C, in which the lever I works. The lever-wheel E is fastened on the shaft. One end of the spiral spring is attached to the wheel and the other to end B. The lever is connected to the wheel by means of a mortise, J, and for adjusting the tension of the spring to suit the purpose for which it

may be designed. A series of mortises is made in the wheel. In the end of the lever is a friction-roll, K. L is a strip or track of metal attached to the door or gate, against which the friction-roll of the lever bears with a constant pressure.

When the door or gate is opened the wheel is turned and the tension of the spring is increased, and the reaction of the spring closes the door.

The spring is protected from the weather by the case, and from dirt and dust at all times.

The bed-plate is fastened to the casing of the door or gate with screws or nails, and the device presents a compact and workmanlike appearance, and is efficient for the purpose for which it is designed.

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

The lever I, one end carrying friction-roll K, resting against door L, and the other passing through a transversely-slotted case, C H, and supported detachably in one of the mortises J of a wheel, E, as and for the purpose described.

LEONARD J. HIGGINS.

Witnesses:

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