H. CODY.

Door-Springs.

No. 144,256. Patented Nov. 4, 1873.

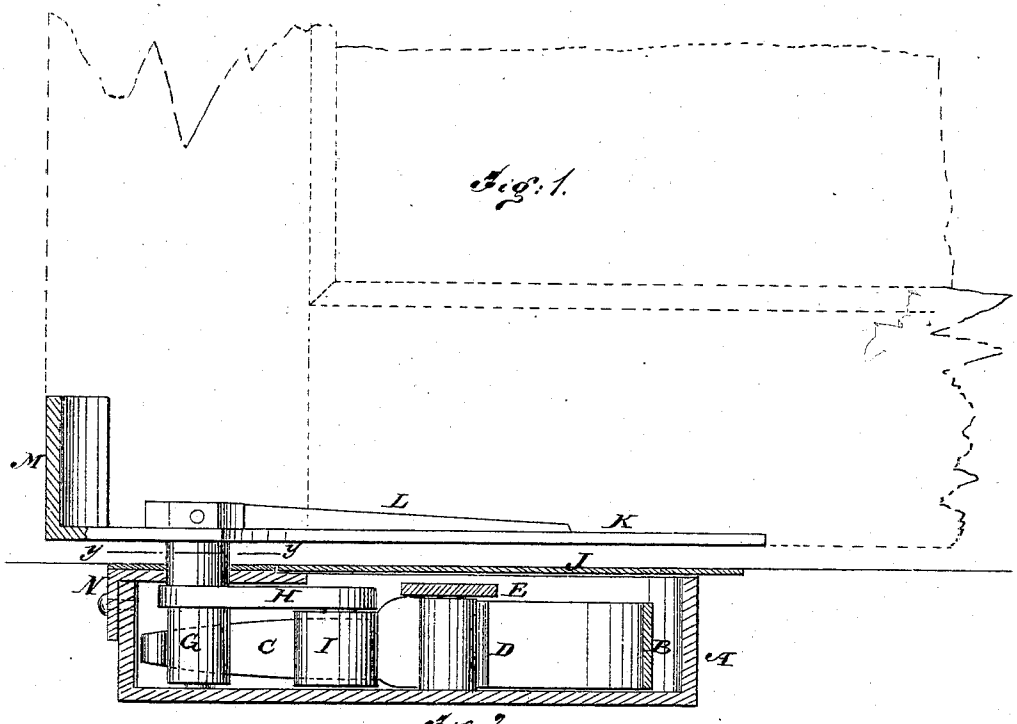


Fig. 1.

Fig. 2.

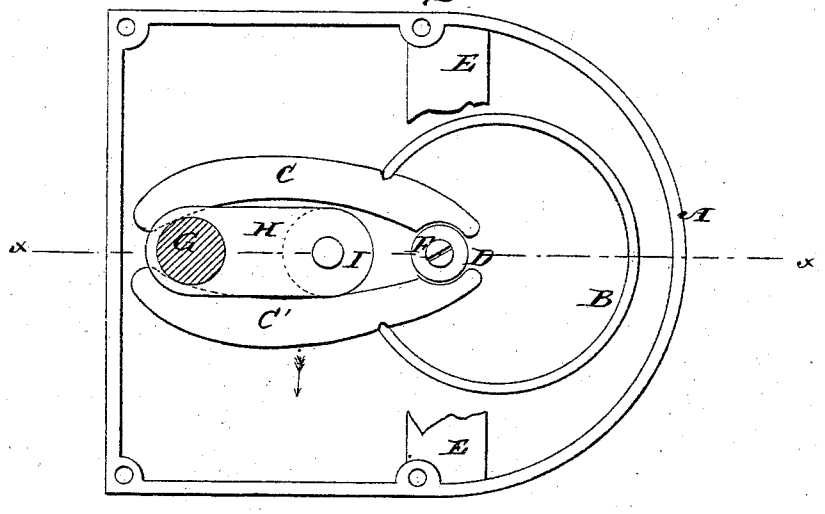
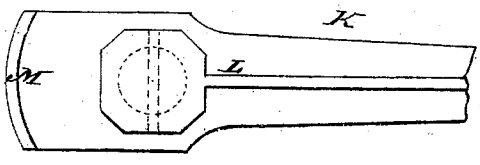


Fig. 3.

Witnesses:

Chas. Nida

Geo. Gaquier



Per

Inventor:

H. Cody

Munn & Co

Attorneys.

A.M. PHOTO-LITHOGRAPHIC Co. N.Y. (OSBORNE'S PROCESS)

UNITED STATES PATENT OFFICE.

HENRY CODY, OF NEW YORK, N. Y.

IMPROVEMENT IN DOOR-SPRINGS.

Specification forming part of Letters Patent No. **144,256**, dated November 4, 1873; application filed July 26, 1873.

To all whom it may concern:

Be it known that I, HENRY CODY, of the city, county, and State of New York, have invented a new and useful Improvement in Door-Springs, of which the following is a specification:

The object of this invention is to provide means for hanging doors without butt-hinges, and for holding the door open when desired, and to make the door self-closing. The invention consists in a peculiar mode of combining with a door a circular spring, a pair of jaws, and a vibratory jaw-spreader, as hereinafter described and claimed.

Figure 1 is a vertical section taken on the line *x x* of Fig. 2. Fig. 2 is a top or plan view with the covering-plate off, it being a horizontal section on the line *y y* of Fig. 1. Fig. 3 is a top view of the operating-lever detached.

Similar letters of reference indicate corresponding parts.

A is a casing, of cast-iron or other suitable material, which contains the springs and jaws. B is the spring. C C′ are the jaws. D is a central stud, which the ends of the jaws clasp. E is a transverse plate on top of the stud, which holds the jaws in place. The plate itself is secured on top of the stud by means of a washer and the screw F. G is a shaft having an arm, H. The lower end of this shaft turns on a pivot on the bottom of the case, as seen in Fig. 1. I is a roller on the end of the arm H. The end of the shaft extends up above the top-plate J, and is rigidly attached to the lever K. The end of the shaft is preferably made square and fastened with a pin. The jaws are forced toward each other by the circular spring B, which exerts a constant pressure. The door is seen in Fig. 1 in dotted lines, with its lower edge or bottom resting on the lever K. This lever has a projecting rib, L, which is let into the bottom of the door, and a flange, M, which receives the back edge, and is screwed to the door. The lower end of the door is thus rigidly connected with the lever. The upper end of the door is supported by a small pivot in a short arm or bracket attached to the casing. When the door is swung open it carries the lever and arm H with its friction-roll I, which spreads the jaws one from the other. If the door is opened, as indicated by the arrow, the jaw C becomes a lever of constantly-increasing power, the fulcrum being the stud D, and the spring the resisting point. When the door has made a quarter-circle or is wide open the roller I will be carried to near the outer end of the jaw, and the arm H will be parallel with the door. In this position the spring will bear directly against the axis, and the door will remain stationary. Should the door be left at any intermediate point, it would be closed by the spring. The spring is made double, so that it may be attached to either side of the door. The case A is let into the floor, so as to be level there with the top plate J; or, by being above the surface, this plate is fastened to the case by means of screws, as indicated in the drawing. The upper part of the shaft G is supported from the case A by means of the angle-plate N. (See Fig. 1.) The covering-plate J is slipped under the lever K, and may be put on or taken off at pleasure.

By means of this apparatus the ordinary butt-hinges are dispensed with. The door is held open when desired, and is self-closing at all times when not wide open.

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

The combination described of the circular spring B, jaws C C, and vibratory jaw-spreader H I, whereby the door is held open or closed.

HENRY CODY.

Witnesses:

T. B. MOSHER,

ALEX. F. ROBERTS.