

S. JOYCE.
Spring-Hinges.

No. 142,855.

Patented September 16, 1873.

Fig. 1.

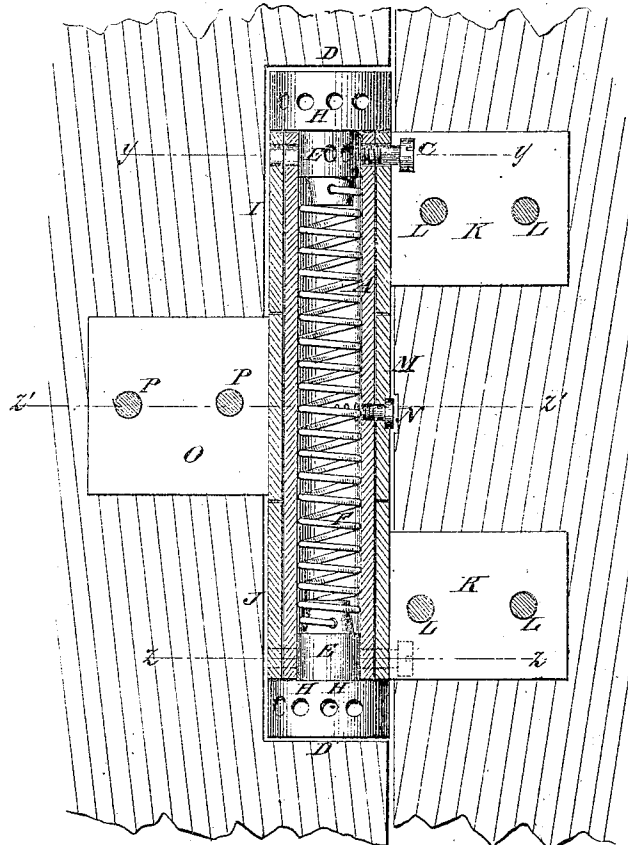


Fig. 2.

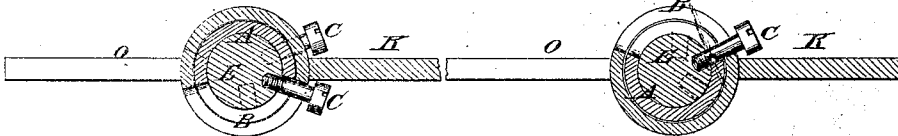


Fig. 3.

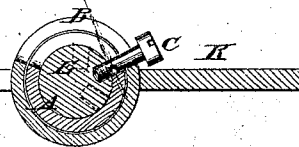


Fig. 4.

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STEPHEN JOYCE, OF NEW YORK, N. Y.

IMPROVEMENT IN SPRING-HINGES.

Specification forming part of Letters Patent No. 142,855, dated September 16, 1873; application filed August 14, 1873.

To all whom it may concern:

Be it known that I, STEPHEN JOYCE, of the city, county, and State of New York, have invented a new and useful Improvement in Spring Butt-Hinges, of which the following is a specification:

My invention is an improvement in the class of hinges specially adapted for use on doors which swing in either direction and are self-closing; and it consists in the construction and arrangement, as hereinafter described, of a tubular pintle provided with heads or plugs connected by a spring, and having a series of holes to adapt them to receive stop-screws for regulating the tension of said spring, and the pintle being inclosed by sleeves having radial wings which form the leaves of the hinge, all as hereinafter described.

In the drawing, Figure 1 is a longitudinal section of the tubular pintle and surrounding bands, showing the heads and spiral spring. Fig. 2 is a horizontal section of Fig. 1 taken on the line *y y*. Fig. 3 is a horizontal section of Fig. 1 on the line *z z*. Fig. 4 is a horizontal section of Fig. 1 on the line *z' z'*.

Similar letters of reference indicate corresponding parts.

A is the tubular pintle having a transverse slot, B, at each end, which cuts the pintle about one-third of its circumference, and is sufficiently broad to admit the stop pins or screws C C. D D are the heads, a portion, E, of which enters the pintle and receives the stop screws or pins C C. These heads are connected together by the spiral spring F, as seen in the drawing. The interior portions of the heads have a series of holes which allow the stop-screws to be adjusted to stop the swing of the door at the desired point. The holes H in the outer portion of the heads are

to hold and give the proper tension to the spring while the stop-screws are being inserted. I and J are the end bands or sleeves around the pintle. These bands have each a slot which corresponds, in position and size, with the slots in the pintle, and each is provided with a leaf, K, which enters the casing or door, and is fastened by means of screws through the holes L. The stop-pins C C strike these leaves when the door is swung, one being on one side and the other on the other side, as indicated in the drawing, the lower one being seen in dotted lines. M is the central band, which is fastened to the pintle by the screw N. O is the leaf of the central band, which is fastened to the door or casing by means of screws in the holes P. These leaves go into mortises in the middle of the casing and door, and the latter is allowed to open in either direction so as to make at least a full opening, and when the hinge is thus attached sufficient tension is given the spring to close the door when swinging from either direction. The swing and closing of the door are regulated by means of the screw N, which is adjusted to the proper one of the series of holes Q, as seen in Fig. 4.

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

A spring butt-hinge, composed of the tubular pintle A, heads D D, spring F, stop-screws C C, and bands or sleeves I, J, and M, with the leaves K, K, and O and screw N, constructed and arranged as shown and described.

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