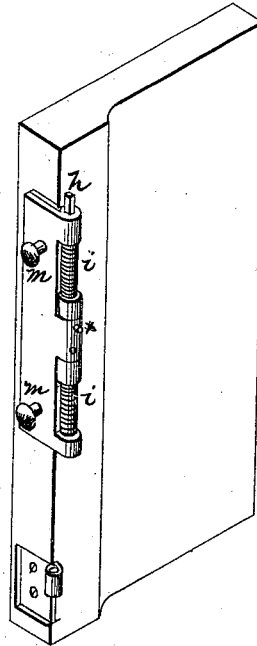
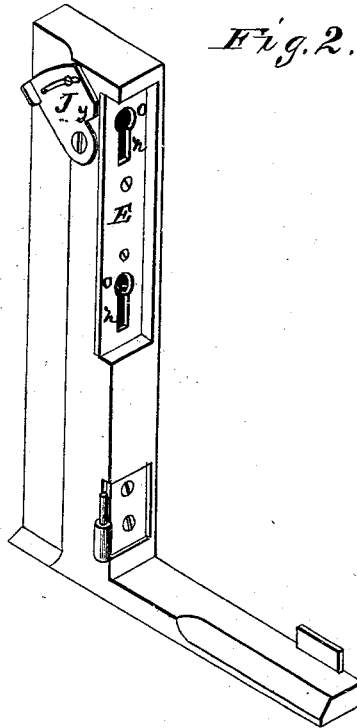
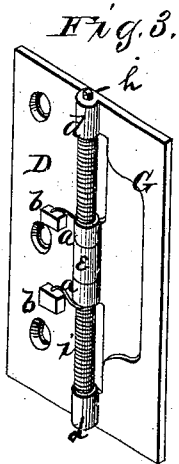
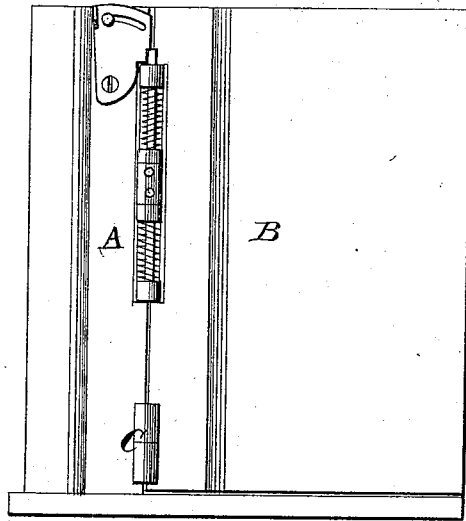


J. PALM.  
SPRING-HINGE.

No. 188,402.

Patented March 13, 1877.

Fig. 1



WITNESSES  
Frank L. Orand  
Henry N. Miller

INVENTOR  
Jeremiah Palm,  
Attorney  
Attorneys

# UNITED STATES PATENT OFFICE.

JEREMIAH PALM, OF SANDWICH, ILLINOIS.

## IMPROVEMENT IN SPRING-HINGES.

Specification forming part of Letters Patent No. 188,402, dated March 13, 1877; application filed September 9, 1876.

*To all whom it may concern:*

Be it known that I, JEREMIAH PALM, of Sandwich, in the county of De Kalb, and in the State of Illinois, have invented certain new and useful Improvements in Spring-Hinges for Doors, Gates, &c.; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention relates to the construction and arrangement of a spring-hinge for doors; and consists, in combination with a metallic plate having slots with enlargements, connected to the door-jamb, of a leaf having knuckles and lugs, combined with a leaf having knuckles, a pintle, two springs, and a pin passing through the central knuckle, for adjusting and holding the pintle to regulate the tension of the springs; also, in a pivoted plate having a shoulder, combined with a slotted face-plate and the spring-hinge leaves, all as will be hereinafter more fully described and definitely claimed.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is an inside view of the door with my hinge attached thereto. Figs. 2 and 3 are detached views of parts thereof.

A represents the jamb of the door-frame, to which the door B is hinged. C is the lower hinge, and is an ordinary butt-hinge. The upper hinge of the door is constructed in the following manner: D is a plate or leaf, let into and fastened firmly to the edge of the door, and provided near the center with two knuckles, *a a*, projecting from the edge of the leaf. This leaf is also provided with two lugs, *b b*, projecting from the face thereof, as shown. G is the other leaf of the hinge, and is at the ends provided with knuckles *d d*, and in the center with a knuckle, *e*, all extending from the edge of the plate, and the knuckle *e* of such size as to fit between the lugs *a a* on the leaf D. Through the various knuckles is passed a pintle, *h*, having two spiral springs, *i i*, passed around the same. One end of each spring is made fast to the

stem, while the other end is made fast to the lug *b*, the tendency of the springs being to close the hinge. The pintle is held in the knuckle *e* by a pin, *x*, as shown, and to increase or diminish the tension of the springs it is only necessary to remove the pin, turn the pintle by a key or wrench, either to the right or left, and then insert the pin again. The inner face of the leaf G is hollowed out, so as to allow for the lugs *b b*, and admit of the hinge closing tightly. On the outer face of the leaf G are two projecting headed pins or screws, *m m*, one near each end, as shown.

In the door-jamb A is made a recess deep enough to receive first a plate, E, which is fastened therein, and then the leaf G of the hinge. In the plate E are slots *n n*, with enlargements *o o* at their upper ends, and in hanging the door the headed pins *m* are passed through said enlargements, and the door then pressed down, care being taken to also engage the two parts of the lower hinge C. At the top of the upper hinge there is left an opening in the door-jamb, which is then closed by means of a pivoted plate, J, which has a shoulder, *y*, to fit over the top edge of the leaf G, and acts, therefore, also as a lock, preventing the door from being lifted off until the said plate is first turned out of the way.

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

1. The combination of the plate E, having slots *n n* and enlargements *o o*, the levers D G, the latter provided with headed pins or buttons *m m*, the pintle *h*, knuckles *a a*, *d d*, and *e*, springs *i*, lugs *b b*, and pins *x x*, all constructed substantially as described and shown, for the purposes set forth.

2. The pivoted plate J, with shoulder *y*, in combination with the plate E and spring-hinge D G, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of July, 1876.

JEREMIAH PALM.

Witnesses:

WESTET W. SEDGWICK,  
A. MUNSON.