

(No Model.)

P. CHANDLER.
SPRING HINGE.

No. 539,724.

Patented May 21, 1895.

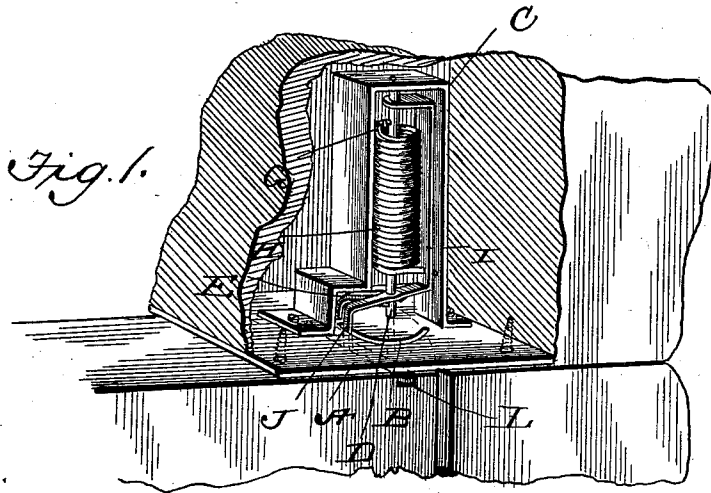


Fig. 3.



Fig. 4.

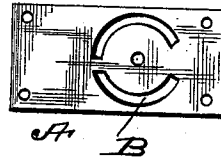
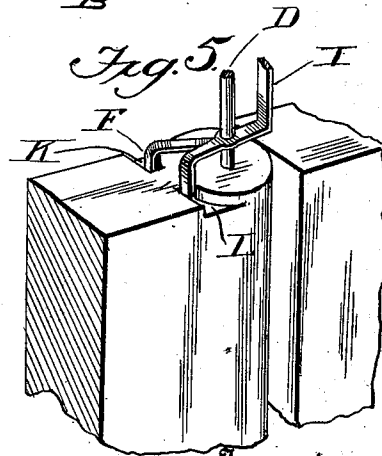
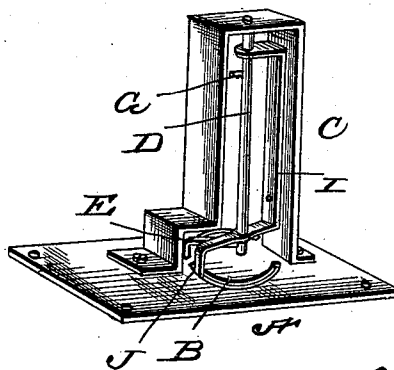


Fig. 2.



Witnesses

Johnamine
W. Bishop

Inventor
Perley Chandler
by *Tracy L. Jeffords*
Attorney

UNITED STATES PATENT OFFICE.

PERLEY CHANDLER, OF BARRE, VERMONT.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 539,724, dated May 21, 1895.

Application filed January 18, 1895. Serial No. 535,407. (No model.)

To all whom it may concern:

Be it known that I, PERLEY CHANDLER, a citizen of the United States, residing at Barre, in the county of Washington and State of Vermont, have invented certain new and useful Improvements in Spring-Hinges; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to improvements in spring hinges and it consists in certain novel features hereinafter described and claimed.

In the accompanying drawings, Figure 1 is a perspective view of a spring-hinge constructed in accordance with my invention. Fig. 2 is a view of the hinge with the spring removed. Fig. 3 is a detail view of the arbor. Fig. 4 is a detail view of the bed-plate. Fig. 5 is a detail perspective view showing the upper corner of the door and the lower ends of the swinging bracket and the arbor.

In carrying out my invention, I employ a bed plate A which is secured to the door sill or the top of the door frame and is provided with the curved slots B having a common center. A stationary bracket C is secured to the bed plate and fits within a recess in the door frame prepared for the hinge. An arbor D is journaled in the end of this stationary bracket and the bed plate at the common center of the curved slots and said arbor is provided with a lateral arm E having a lip F which plays in one of the curved slots and near its opposite end the said arbor is provided with a pin G to which I secure one end of a spiral spring H which is coiled around the arbor as clearly shown. A swinging bracket I is mounted on the arbor and adapted to rotate thereon and is provided with a lip J which swings in the curved slot B other than the one in which the lip of the arbor swings, the free end of the spiral spring engaging an opening in the side of the swinging bracket, as clearly shown. The end of the arbor is ex-

tended downward and enters the corner of the door to form a pivot for the same, and the lips F J enter and play in the notches K L formed in the top edge of the door.

It is thought that the operation and advantages of my hinge will be readily understood from the foregoing description taken in connection with the accompanying drawings. The lips of the arbor and the swinging bracket, when at rest, press toward the front ends of the curved slots and bear against inner end walls of the notches K L formed in the opposite sides of the door at the top edge of the same as shown most clearly in Fig. 5.

The hinge is secured in the door frame above or below the door and the opposite end of the door is supported by a pivot so that the door may freely swing in either direction. Now then, if the door be pushed to one side, it will bear against the lip on that side and push the same around in the curved slot so as to increase the tension of the spring which will immediately and automatically close the door as soon as the pressure thereon is removed. It will be obvious that the action is the same should the door be swung in either direction, as when the door is swung in one direction it rotates the arbor and increases the tension of the spring through the upper end of the same and when the door is swung in the other direction, it rotates the swinging bracket and consequently increases the tension of the spring through the opposite end of the same.

Although I have shown and described a spiral spring, it will be readily understood that a flat volute spring may be employed instead and in some cases it may be preferable, as a more compact arrangement can be then effected.

The device is very simple in its construction, occupies very little room and is efficient in operation.

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

The combination with an arbor forming a pivot for the door and having a depending lip adapted to bear against the side of the door,

and a swinging bracket mounted on said arbor and adapted to rotate thereon and having a depending lip bearing against the opposite side of the door, of a spring coiled around the arbor within the bracket and having its opposite ends secured to the bracket and the arbor respectively.

In testimony whereof I affix my signature in the presence of two witnesses.

PERLEY CHANDLER.

Witnesses:

W. A. BOYCE,
O. B. BOYCE.