(No Model.)

W. A. PLACE.

SPRING HINGE.

No. 589,854. Patented Sept. 14, 1897.

Fig. 1.

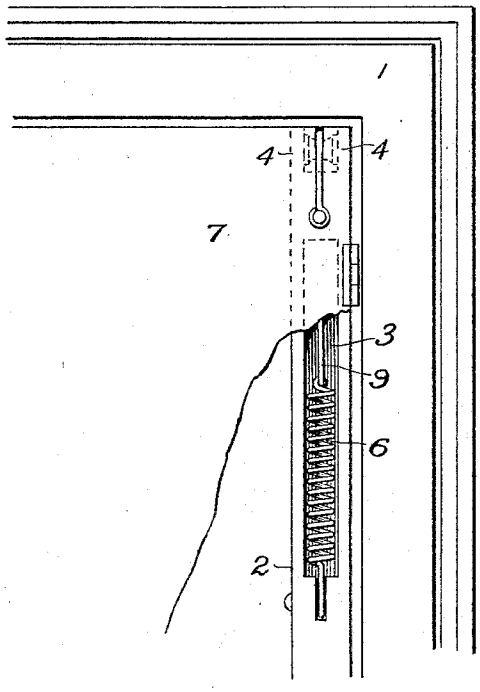


Fig. 2.

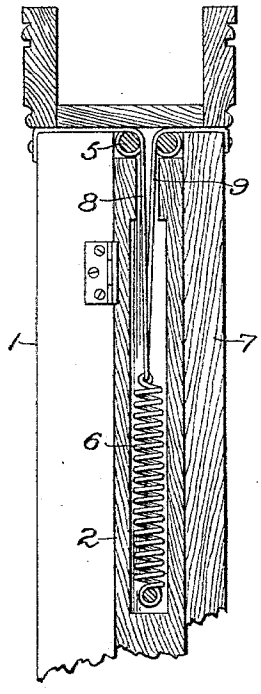


Fig. 3.

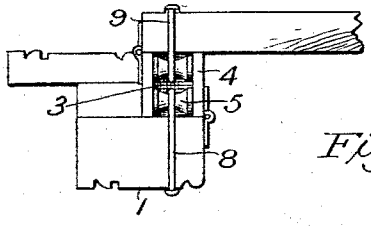


Fig. 4.

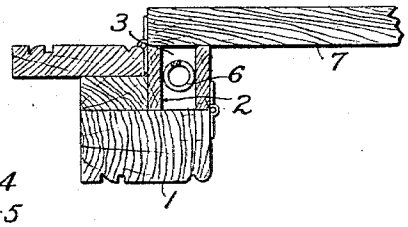
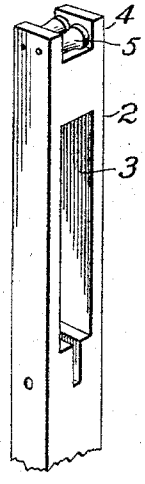


Fig. 5.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLARD ALLEN PLACE, OF KANSAS CITY, KANSAS.

SPRING-HINGE.

SPECIFICATION forming part of Letters Patent No. 589,854, dated September 14, 1897.

Application filed June 12, 1896. Serial No. 595,263. (No model.)

To all whom it may concern:

Be it known that I, WILLARD ALLEN PLACE, a citizen of the United States, residing at Kansas City, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Door-Hinges; and I do hereby 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.

My invention relates to improvements in door-hinges, the object of the same being to provide a simple and cheaply-constructed two-way hinge whereby a door may be opened in either direction and in which a single spring for returning the door to normal position is employed.

The invention consists of a block having an elongated slot therein hinged to the door-frame and extending longitudinally thereof, a spiral spring moving within said slot and secured at its lower end, a door hinged to said block at the corner opposite to the hinged joint between said block and said door-frame, pulleys mounted transversely in said block in the upper end thereof, and a pair of chains or cords secured to the upper end of said spring, passing around said pulleys, and attached, respectively, to the door-frame and the door.

The invention is clearly illustrated in the accompanying drawings, in which—

Figure 1 represents a side elevation of my door-hinge in its normal or closed position. Fig. 2 is an edge view of the same. Fig. 3 is a top plan view. Fig. 4 is a horizontal section. Fig. 5 is a detail perspective view of the block in which the closing-spring is mounted.

Like reference-numerals indicate like parts in the different views.

Hinged to the side of the door-frame 1 is a block 2, having an elongated slot 3 therein formed with side arms 4 4 at its upper end and having a pair of transverse rollers 5 5 pivotally mounted in said arms. Fitting within the slot 3 in the block 2 and secured at its lower end to said block is a spiral spring 6, and hinged to the edge of the block 2, opposite the hinged joint between said block and the door-frame 1, is a door 7. Secured to the upper end of the spring 6 and passing around the pulleys 5 5 are chains or cords 8 9, which are connected, respectively, to the upper edges of the door-frame 1 and the door 7.

As thus constructed, it will be seen that the door 7 is capable of being opened in either direction and that it will be returned to its normal closed position by the action of the spring 6 and the cords 8 9.

The device is extremely simple in construction, can be cheaply made, and can be applied to any door now in use.

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

1. The combination with a door-frame of a block hinged at one corner to said frame, a spring mounted in said block, a door hinged to the opposite corner of said block and cords connected to one end of said spring and attached to said door and frame respectively, substantially as and for the purpose described.

2. The combination with a door-frame of a block having an elongated slot therein, hinged at one corner to said frame, a coiled spring moving within said slot and secured at one end to said block, a pair of rollers pivotally mounted in the upper end of said block, a door hinged to the opposite corner of said block and chains or cords connected to the free end of said spring, passing around said rollers and attached respectively to said door and frame, substantially as and for the purpose described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLARD ALLEN PLACE.

Witnesses:
J. J. SILVER,
J. P. CLARK.