March 18, 1924. 1,487,233

P. J. GLANCEY

SCREEN DOOR HINGE

Filed April 2, 1923

FIG. 1.

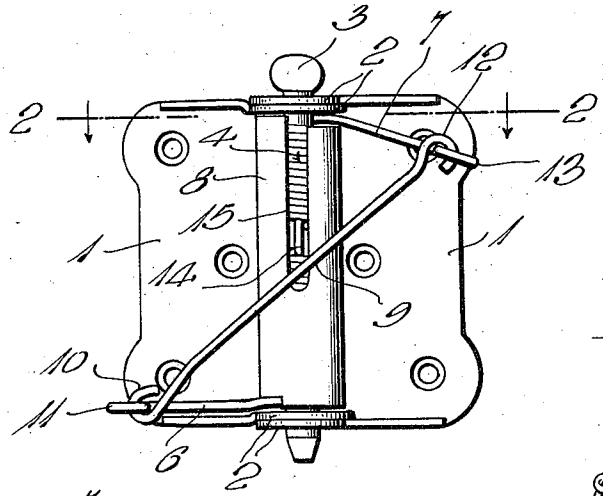


FIG. 5.

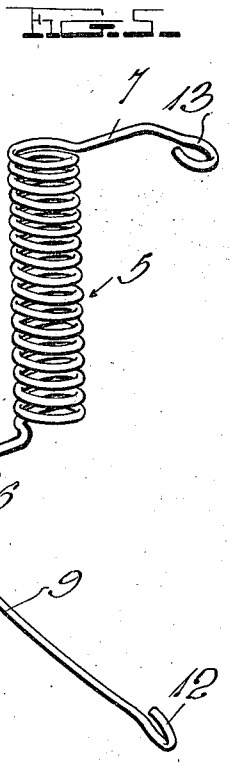


FIG. 4.

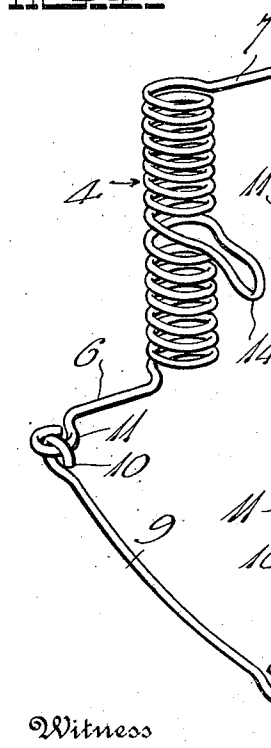


FIG. 2.

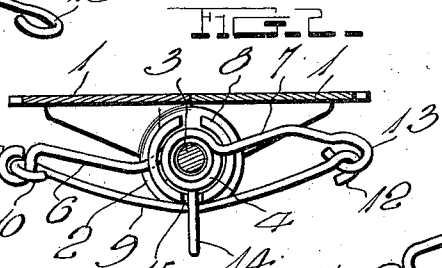
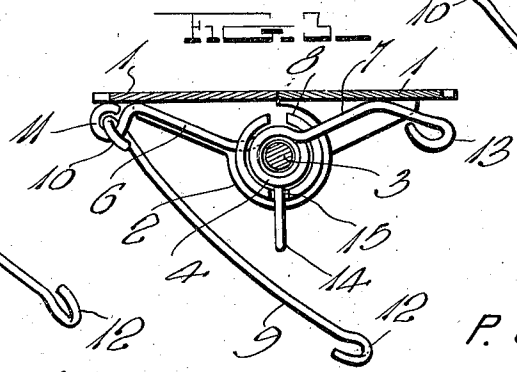


FIG. 3.



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UNITED STATES PATENT OFFICE.

PATRICK JOSEPH GLANCEY, OF SCRANTON, PENNSYLVANIA.

SCREEN-DOOR HINGE.

Application filed April 2, 1923. Serial No. 629,485.

To all whom it may concern:

Be it known that I, PATRICK J. GLANCEY, a citizen of the United States, residing at Scranton, in the county of Lackawanna and State of Pennsylvania, have invented certain new and useful Improvements in Screen-Door 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.

My invention relates to improvements in door hinges and more particularly to those which are designed primarily for use upon screen doors and are formed of separably connected spring-actuated leaves adapted to be disconnected from each other when removing the door and storing it until further use is required.

It is the object of the present invention to provide novel means whereby the actuating spring for the two leaves may be held in an inoperative condition to permit the hinge pintle to be easily removed, whereupon the two leaves of the hinge may be readily disconnected, the one remaining on the door while the other will remain secured to the door-frame.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, the description being supplemented by the accompanying drawings.

Figure 1 is a front elevation of a hinge constructed in accordance with my invention showing its spring held against operation.

Figure 2 is a horizontal sectional view on line 2—2 of Fig. 1.

Figure 3 is a view similar to Fig. 2 but illustrating the spring in an operative condition.

Figures 4 and 5 are perspective views of two forms of hinges which may be used.

In the drawing above briefly described, the numerals 1 designate a pair of hinge leaves having overlapping ears 2 formed with alined openings to receive a removable pintle 3. A spring surrounds the pintle 3 and may be of the form indicated by the reference numeral 4 or of the simpler type referred to by the numeral 5 in Fig. 5. In either instance, the opposite ends of the spring are provided with oppositely extending arms 6 and 7 which bear against the leaves 1 and serve to close the door to which the hinge is connected. A suitable tubular casing 8 is preferably provided for the spring, but this casing is not altogether essential in all cases, although it is advisable for the purpose of holding the spring against possible bowing or buckling.

For the purpose of holding the arms 6 and 7 against acting on the hinge leaves 1, when said arms have been moved to a predetermined angular relation, I provide an arm-holding member which is preferably in the form of a length of wire 9 engageable with the aforesaid arms. In the preferred form of construction, one end of the wire 9 is formed with an eye 10 engaged with a similar eye 11 at one end of one of the arms, while the other end of said wire is bent to form a hook 12 engageable with another eye 13 at the free end of the other arm. The wire 9 will extend obliquely across the spring and the casing 8 (if the latter is used) when engaged with the two arms 6 and 7 and consequently will hold them against operation. The result is that the leaves 1 are free of spring action and the pintle 3 may be easily removed. Then, the two leaves may be separated and the pintle re-inserted through the ears 2 of one leaf and through the spring, to prevent loss of the latter. The spring and its casing, if the latter is used, preferably remain upon the door-carried leaf of the hinge and consequently may be stored out of the weather when the door is stored for the winter months. Whenever the use of the door is again necessary, it is a simple matter to hang the same. When this is done, the wire 9 is released from the eye 13 and consequently the two arms 6 and 7 may again function to effect closing of the door.

In the form of construction shown in Figs. 1 to 4, the spring 4 is shaped between its ends to provide an outwardly extending handle 14 which passes through a slot 15 in the casing 8. By placing the thumb of one hand on this handle and engaging the upper arm 7 with the forefinger of the same hand, it will be seen that this arm 7 may be sprung downwardly and inwardly to permit the hook 12 to be engaged with the eye 13. However, it will be clear that by simply opening the door to the required extent, the arms 6 and 7 will be moved into the necessary angular relation to permit the hook to be engaged with the eye and

hence it is to be understood that the handle 14 is not an essential part of the invention. For this reason, I have shown in Fig. 5 a form of spring which is not equipped with the handle, yet will be equally as efficient as the other spring.

As excellent results may be obtained from the details disclosed, these details are preferably followed, but within the scope of the invention as claimed, numerous minor changes may be made.

I claim:

1. A hinge comprising a pair of leaves having overlapping ears and a removable pintle passing therethrough, a coiled spring surrounding said pintle and having oppositely extending arms at its ends acting on said leaves, and an arm holding member adapted to extend across said spring and designed for connection with said arms to hold the spring against action when said arms have been moved into angular relation with each other, permitting easy removal of the pintle.

2. A structure as specified in claim 1; said arm-holding member being in the form of a length of wire having an eye at one end and a hook at its other end, said arms having eyes co-acting with said hook and eye to connect said arms and said length of wire.

In testimony whereof I have hereunto affixed my signature.

PATRICK JOSEPH GLANCEY,