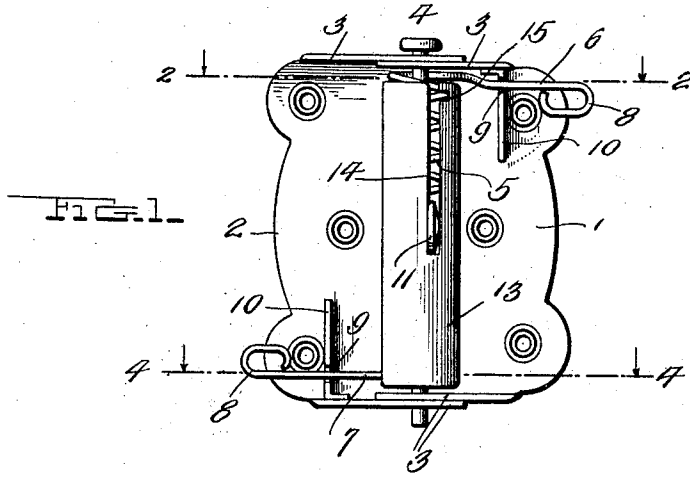
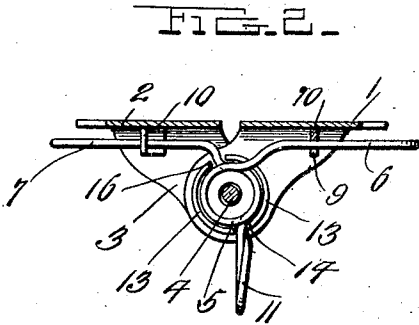
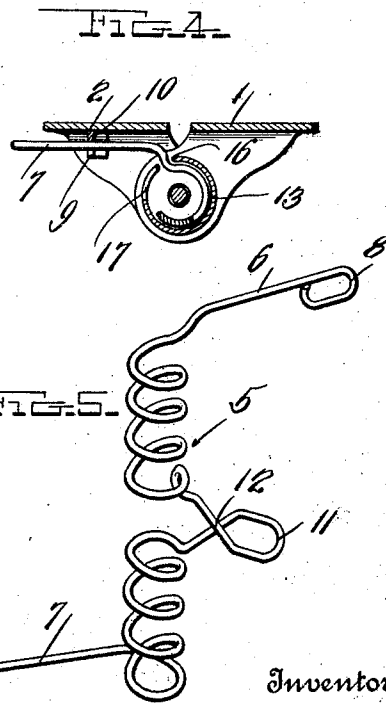
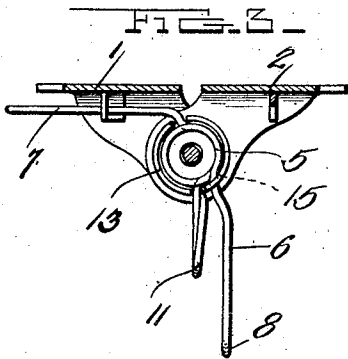
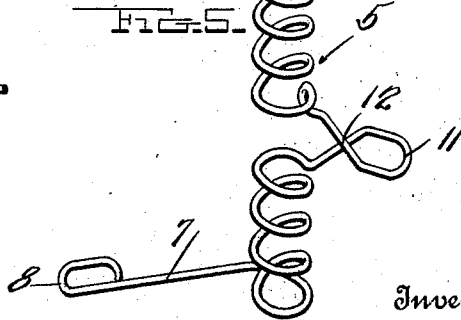


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SCREEN DOOR HINGE.
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1,408,583.

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UNITED STATES PATENT OFFICE.

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SCREEN-DOOR HINGE.

1,408,583.

Specification of Letters Patent.

Patented Mar. 7, 1922.

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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 on screen doors, and the principal object is to provide an improved form of hinge which is of such construction as to permit the spring to be held in an inactive position so that the pintle connecting the door and frame carried leaves of the hinge, may be removed. By this arrangement, one part of the hinge may be left on the door frame when the screen door is to be removed and the other part of said hinge may remain attached to the door and stored therewith until the next season. The inconvenience of driving and removing screws and consequently the danger of mutilating either the door or the frame by repeated repetition of this screw driving and removing operation is averted.

With the foregoing in view, the invention resides in the novel construction and association of parts hereinafter described and claimed, and illustrated in the accompanying drawings.

Figure 1 is a front elevation of a hinge constructed in accordance with my invention.

Figure 2 is a horizontal sectional view as indicated by line 2—2 of Fig. 1.

Figure 3 is a duplicate of Fig. 2 with the exception that it illustrates the hinge held in inactive position, preparatory to disconnecting the two hinge leaves.

Figure 4 is a horizontal sectional view as indicated by line 4—4 of Fig. 1.

Figure 5 is a perspective view of the novel form of spring which is used.

In the drawings above briefly described, the numerals 1 and 2 designate the usual leaves on a screen door hinge, said leaves having ears 3 at their ends which are pivoted together by a removable pintle 4. Surrounding this pintle is a coiled spring 5 whose upper and lower ends are provided with

oppositely extending arms 6 and 7 respectively, which are preferably looped at their outer ends as at 8. These arms could well rest directly against the leaves 1 and 2, but they are preferably received in notches 9 in vertical flanges 10 with which said leaves are provided. The coiled spring 5 is formed of a single length of wire bent upon itself at its center to form an open loop 11, the end portions of the wire being then crossed as indicated at 12 and thereafter coiled to form the two halves of the spring and the arms 6 and 7 which extend therefrom. The loop 11 forms a handle extending laterally from the central portion of the spring and this handle and the loop 8 of the arm 6 are instrumental in moving the spring from the operative position seen in Fig. 2, to the inactive position depicted in Fig. 3, this operation being hereinafter fully explained.

A tubular casing 13 surrounds the spring 5 and is entirely separate from the leaves 1 and 2, the front side of said casing having a vertical slot 14 extending from its intermediate portion to its upper end and provided in one side with a notch 15. The handle or loop 11 extends forwardly through the lower end of the slot 14 and by placing the thumb of the right hand on this loop and engaging the loop 8 of the arm 6 with the forefinger, said arm 6 may be swung forwardly and hooked into the notch 15 as seen in Fig. 3, whereby the spring is held in a tensioned inoperative condition so that the pintle 4 may be removed to detach the two leaves of the hinge from each other. The rear side of the casing 13 is provided with a vertical slot 16 which extends throughout its height and it will be seen by reference more particularly to Figs. 2, 3 and 4, that the lower arm 7 of the spring 5 extends through this slot, one side of which is provided with a notch 17 (Fig. 4) to receive the arm as the hinge is operated in opening the door.

When initially assembling the device, the spring 5 is insertable into the casing 13 through the upper end of the latter and during this operation, the handle or loop 11 moves downwardly in the slot 14 while the arm 7 moves similarly in the slot 16. The handle 11 and the loop 8 of the arm 6 are then grasped in the manner above set forth and said arm 6 is swung forwardly and hooked into the notch 15 as seen in Fig. 3.

The spring 5 is thus held under tension and with the spring in this condition, said spring and its casing 13 are bodily positioned between the ears of the hinge leaves as seen in Fig. 1. The pintle 4 is then inserted through the apertures in said ears and through the center of the spring and casing, and when this is done the arm 6 is unhooked from the notch 15. The arm in question is then allowed to engage its respective seat 9 and the arm 7 is properly positioned in the other seat 9 so as to insure that it shall move into the slot 17 when the hinge is operated. With the several parts in the relation just described, the device operates as an ordinary spring hinge, but whenever required, the leaves may be quickly and easily disconnected from each other so as to permit removal of the door until further use thereof is necessary. Re-hanging of the door may be effected with equal ease and it will be seen that not only has a great deal of trouble and inconvenience been obviated, but the injury caused to the door or door frame by repeatedly inserting and removing the screws, is prevented.

The device is simple and inexpensive, yet is highly efficient and in every way desirable, and since probably the best results may be obtained with the details disclosed, these details may well be followed. I wish it understood however that within the scope of the invention as claimed, numerous minor changes may be made.

I claim:

1. The combination with a pair of hinge leaves and a pintle removably connecting said leaves and spaced forwardly therefrom; of a coiled spring surrounding said pintle and having oppositely extending arms at its ends engaging the aforesaid leaves, a tubular casing surrounding said spring, the front side of said casing having a slot, and a handle rigidly connected with said spring and extending therefrom through said slot, one end of said casing having a hook with

which one of said arms is adapted to be engaged to hold the spring in inactive position and permit removal of the pintle.

2. The combination with a pair of hinge leaves and a pintle removably connecting said leaves and spaced forwardly therefrom; of a coiled spring surrounding said pintle and having oppositely extending arms at its ends engaging the aforesaid leaves, a tubular casing surrounding said spring, the front side of said casing having a vertical slot extending from its intermediate portion to its upper end and provided in one side with a notch adapted to receive the uppermost of the aforesaid arms to hold the spring in inoperative condition, the intermediate portion of said spring being formed with an integral handle extending outwardly through the lower end of said slot to prevent relative rotation of the casing and spring and to assist in moving said upper arm into said notch, the rear side of said casing being provided with a vertical slot through which the lowermost of the aforesaid arms extends.

3. A hinge comprising a pair of leaves, a removable pintle connecting said leaves and spaced forwardly therefrom, a coiled spring loosely surrounding said pintle and having laterally extending leaf engaging arms at its upper and lower ends, and a slotted casing for said spring having a hook with which one of said arms is adapted to engage to hold the spring in inactive condition; said spring being formed of a single length of wire bent upon itself at its center to form a loop whose ends are coiled to form the upper and lower halves of the spring and then extended laterally to provide the aforesaid arms, said loop extending through the slot in the aforesaid casing for the purpose specified.

In testimony whereof I have hereunto set my hand.

PATRICK J. GLANCEY.