Dec. 2, 1930. T. JOHNSON ET AL 1,783,475

HINGE

Filed April 28, 1927

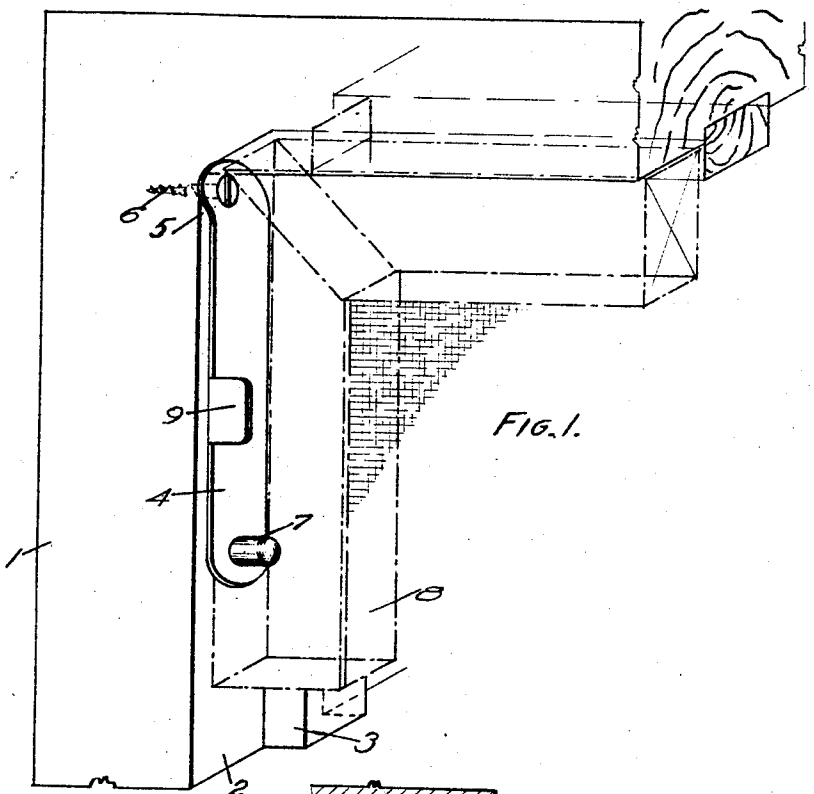


FIG. 1.

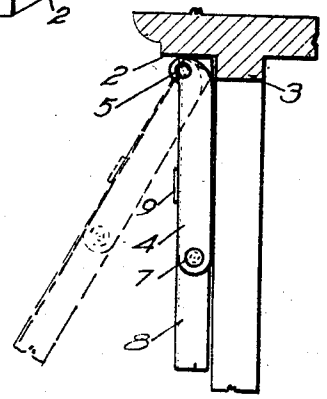


FIG. 2.

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UNITED STATES PATENT OFFICE

THEODORE JOHNSON, OF ERIE, AND PAUL G. JOHNSON, OF WESLEYVILLE, PENNSYLVANIA, ASSIGNORS TO JOHNSON METAL PRODUCTS COMPANY, OF ERIE, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA

HINGE

Application filed April 28, 1927. Serial No. 187,167.

Many devices, as for example, screens are periodically removed and replaced. With such devices it is desirable to have them so arranged that the screen, or other article may be readily detached and attached while at the same time affording a suitable hinge while in use. The present device not only affords a means by which screens and similar devices may be readily detached and rehung but also a device which initially can be readily secured in place. Features and details of the invention will appear from the specification and claims.

A preferred embodiment of the invention is illustrated in the accompanying drawings as follows:—

Fig. 1 shows a perspective view of a corner of a window and screen with the hinge in place.

Fig. 2 a section of a window frame with an edge view of the screen.

1 marks a window frame. This is provided with a guide face 2 and stop 3.

A resilient hinge plate 4 is provided with a perforation 5 at its upper end through which extends a screw 6 to secure the plate to the frame and against the guide face 2.

The lower end of the plate is provided with a pin 7 which is adapted to extend into a perforation in a screen frame 8. A lip 9 extends from the edge of the plate 4 and overlying the face of the screen frame.

With this structure the plate 4 may be secured on the window frame by means of the screws 6. By swinging the plate outwardly from the plate, the frame may be flexed sufficiently to swing the pin sidewise sufficiently to permit its passage over the edge of the screen frame into register with the perforation in the screen frame. The pin then snapping into place in the screen frame permits the screen frame to swing back into place on the window frame. It will be understood that the plates are arranged at each side of the screen. Fig. 1 shows a plate at one side of the screen and Fig. 2 a plate at the opposite edge of the screen. The lip 9 extending over the face of the screen prevents the outward movement of the screen incident to an outward movement of the upper rail of the screen. Thus it will be seen that the screen may be readily swung from the top and when it is desired to detach it, it is only necessary to swing it out a certain distance and flex the plate 4 sufficiently to withdraw the pin 7. It is only necessary to do this on one side, the opposite side readily releasing itself with the release of the one side.

What we claim as new is:—

1. A hinge comprising a resilient plate having means at one end for pivotally securing it to a support; means at the opposite end for securing it to a device to be supported, said means being sufficiently remote from each other to permit the flexing of the intervening plate to detach the plate from the device supported; and a lip at one edge adapted to overlie the face of the device supported.

2. A hinge comprising a resilient plate; means for pivotally securing the plate to a support; a pin at the opposite end of the plate, said pin being sufficiently remote from the means to permit the flexing of the intervening plate to the extension of the length of the pin whereby it may be detached through said flexure from a support and a lip at one edge of the plate overlying a device to be supported.

3. The combination of a main frame; a swinging frame in the main frame; and a hinge at each side of the swinging frame comprising a resilient plate between the main frame and the edge of the swinging frame, said plate being pivotally secured to the main frame and detachably secured to the edge of the swinging frame at a point sufficiently remote from the means of securing to the main frame to permit detachment by a flexing of the plate when the swinging frame is swung out of the plane of the main frame.

4. The combination of a main frame; a swinging frame in the main frame; and a hinge at each side of the swinging frame comprising a resilient plate between the main frame and the edge of the swinging frame, said plate being pivotally secured to the main frame and detachably secured to the edge of the swinging frame at a point sufficiently remote from the means of securing to the main frame to permit detachment by a flexing of

the plate when the swinging frame is swung out of the plane of the main frame and a lip at the edge of each plate overlying the swinging frame.

In testimony whereof we have hereunto set our hands.

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