Feb. 7, 1928. 1,658,386

A. C. MAYERS

HINGE

Filed Aug. 9, 1926

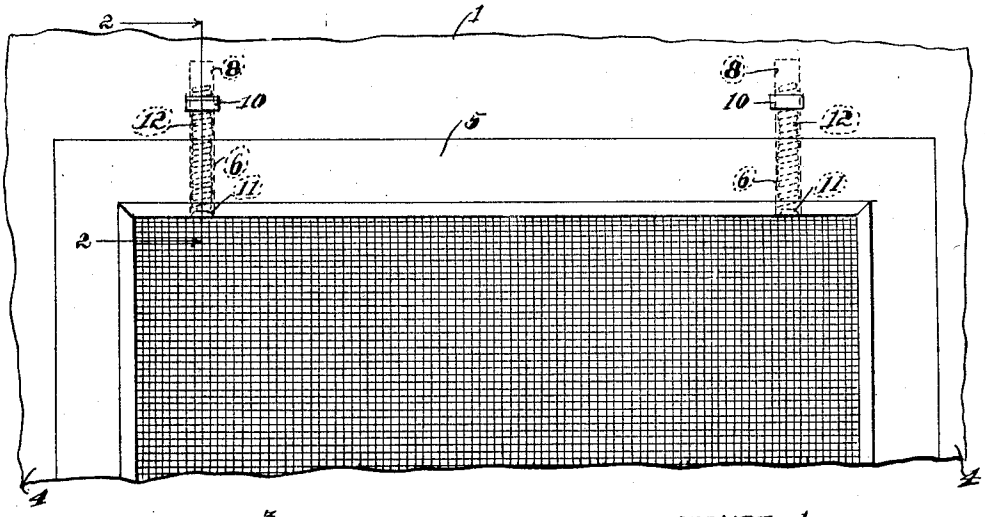


FIGURE 1

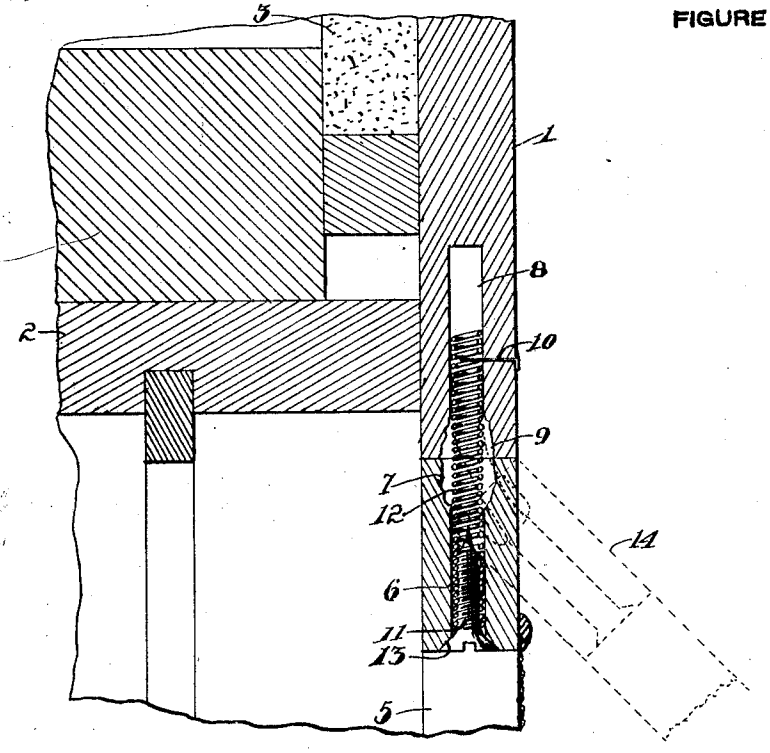


FIGURE 2

INVENTOR

Alfred C. Mayers

John A. Rainsmith

ATTORNEY

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ALFRED C. MAYERS, OF SAN JOSE, CALIFORNIA, ASSIGNOR OF ONE-HALF TO H. W. GARMAN AND ONE-HALF TO B. S. SETTRINI, BOTH OF SAN JOSE, CALIFORNIA.

HINGE.

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This invention relates particularly to spring hinges adapted for use on windows, screens and doors.

It is one object of my invention to provide a spring hinge construction by means of which a closure may be suspended from the head casing of an opening and normally held in closed relation thereto.

It is another object of my invention to provide a device of the character indicated that will not be exposed to the elements when in use, and not normally visible from the exterior of the building on which it is used.

It is also an object of the invention to provide a hinge of the character indicated that will be economical to manufacture, quickly and easily installed, quickly and easily adjustable to secure the desired tension, and highly efficient in its practical application.

In the drawing:—

Figure 1 is an elevation of a portion of a window casing and a portion of a screen mounted therein by means of my improved hinge.

Figure 2 is a section on line 2—2 of Figure 1.

Referring now more particularly to the drawing, I show at 1 a portion of a window casing mounted on the exterior of a building and on the head jamb 2 and exterior stucco finish 3, the side portions of the casing being shown at 4.

At 5 is shown an ordinary screen set in the casing 1 and 4.

In installing this hinge the screen 5 is carefully fitted into the opening and then the upper end thereof is bored through at two points as shown at 6—6, the holes thus made being preferably somewhat enlarged at their outer ends as at 7.

Similar holes are bored upwardly into the head casing 1 as shown at 8 and in axial alignment with the holes 6 in the screen 5, and these holes are also preferably somewhat enlarged at their outer ends as at 9. A pin or plate or other suitable element is now driven into the head casing 1 in such a manner as to enter the hole 8 a distance as shown at 10. It is essential that this element 10 does not close the hole entirely but leaves sufficient space between it and the wall of the hole to permit a spring to wind therethrough.

At 11 I show a screw of somewhat less diameter than the hole 6 and having a coiled spring 12 securely mounted thereon.

If the screw and spring is inserted through the hole 6 and into hole 8 after the screen has been placed in position, then the entrance of the spring into hole 8 is barred by element 10. If the screw 11 is now turned in the usual way the end of the spring will engage the element 10 and thread its way past the same. This threading of the spring may be continued until the head of the screw engages the seat 13 in the screen 5 and sufficient tension has been secured in the spring itself.

With two springs mounted in the head casing and screen as described the said screen may be swung outwardly from the bottom as desired, swinging through the position 14. Upon being released the screen will automatically assume its normal closed position, and with proper tensioning on the spring the screen will be securely held against rattling. To remove the screen entirely it is only necessary to unscrew the spring from the element 10.

It may be readily seen from the foregoing that I have provided a hinge that may be applied to many different types of closures, its application to a screen being for the purpose of illustration only. The device is positive in its action, simple in form and construction, economical to manufacture and install, and highly efficient in its practical application.

It is to be understood, of course, that while I have herein shown and described but one specific embodiment of the invention, changes in form, construction, and method of assembly and operation may be made within the scope of the appended claims.

I claim:—

1. In combination with a supporting member and a supported member, a coiled spring unsupported against bending relative to its longitudinal axis mounted on said members whereby to normally support one member in the plane of the other member but flexing to permit the one member to swing relative to the other, means for rotating the spring mounted on one end thereof.

and means mounted on the member remote from said last mentioned end for engaging the coils of the spring to advance or retract the same relative to the member when turned on its longitudinal axis.

2. In combination with a supporting member and a supported member, a coiled spring unsupported against bending relative to its longitudinal axis mounted on one member and held against longitudinal movement therein, and mounted on the other member whereby to normally support the two members in the same plane but flexing to permit one member to swing relative to the other, means for rotating the spring mounted on the end thereof engaging the first mentioned member, and means mounted on the second mentioned member for engaging the coils of the spring to advance or retract the same relative to the member when turned on its longitudinal axis.

ALFRED C. MAYERS.