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A. L. TIMMONS

2,129,338

SCREEN DOOR SPRING

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Fig. 1.

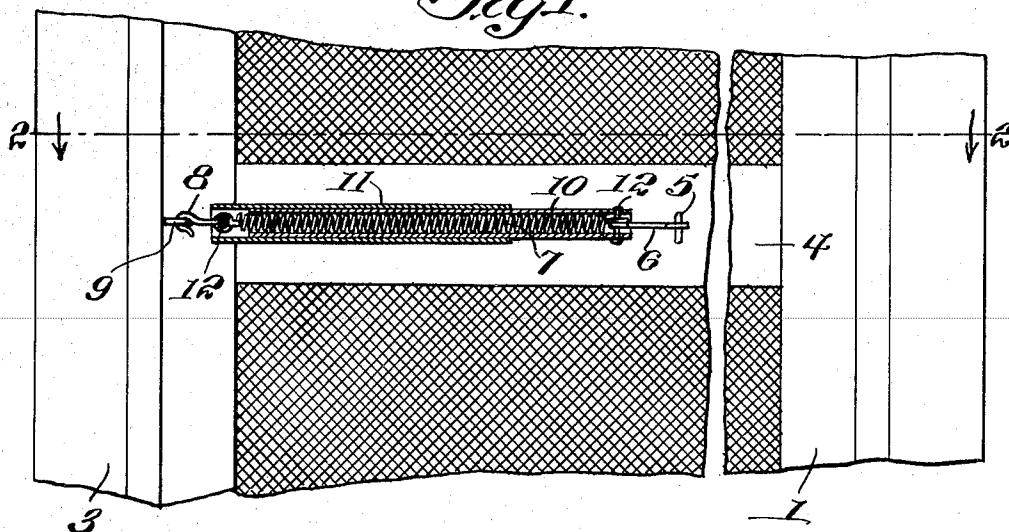


Fig. 2.



Fig. 3.

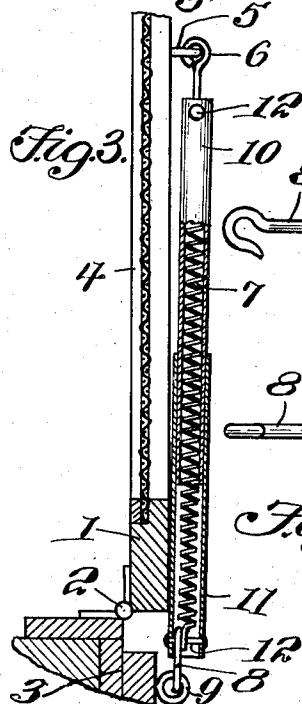


Fig. 4.

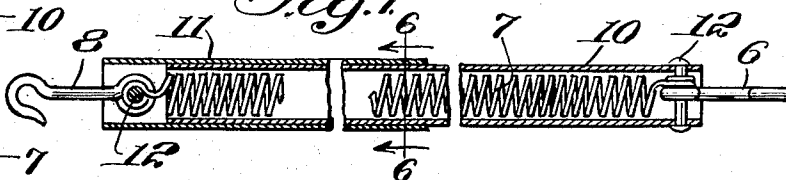


Fig. 5.

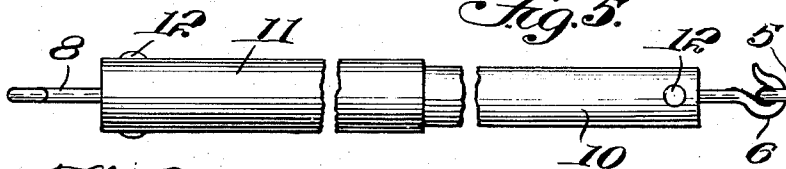
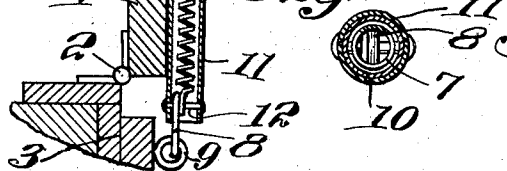


Fig. 6.



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SCREEN DOOR SPRING

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Application January 8, 1935, Serial No. 903

1 Claim. (Cl. 16—72)

Screen doors are generally equipped with retractile springs attached at one end to the door and at the opposite end to the door jamb to which the door is hinged, the opening of the door stretching the spring so that it at once returns the door to closed position when the opening force is released. Owing to the careless or reckless manner in which the doors are frequently opened, the springs are often broken and serious injury has resulted, the flying broken spring ends hitting persons passing or in the vicinity of the door. My invention provides means to avoid injury from broken springs without lessening the normal efficiency of the springs. The invention is illustrated in the accompanying drawing and will be hereinafter fully described, the novel features being particularly defined in the appended claim.

In the drawing:

Figure 1 is an elevation of a portion of a screen door having the invention applied thereto.

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

Figure 3 is a similar view showing the door opened.

Figure 4 is a longitudinal section through the spring and its sheathing showing a modified form of connecting means.

Figure 5 is an elevation of the same.

Figure 6 is a section on the line 6—6 of Figure 4.

The screen door 1 of any approved construction is hinged, as at 2, to the door frame 3. In a cross rail 4 of the door is secured an eye 5 in which is engaged a hook or eye 6 which is connected with one end of the spring 7, the opposite end of the spring being connected with a similar hook 8 which is engaged in an eye 9 secured in the door frame. The spring is housed in a sheath

consisting of telescoping tubes 10, 11 having open distal ends in which are cross pins or rivets 12 which also pass through on the meeting ends of the spring and the attaching hooks 6 and 8, so that these pins or rivets connect the hooks with the spring and both hooks and spring with the telescopic tubes. The hooks may pivot on the pins so that binding or breakage of the parts cannot occur. The tubes are preferably of light metal but they may be of any inexpensive material having the requisite strength and durability.

The spring will operate in the usual manner to close the opened door and is completely housed in the sheath which elongates and shortens with the spring by reason of its ends being connected with the ends of the spring. Should the spring break, its parts would remain in the sheath and no damage to persons or any other parts of the apparatus would result. A new spring may be easily fitted in place as the open ends of the tubes will permit them to be easily separated and engaged over the opposite ends of the spring which ends may be readily hooked about the respective pins or rivets.

Having described my invention, what I claim is:

A screen door spring and housing therefor comprising, a retractile spring having eyes at the ends, a pair of open ended telescoping tubes housing the spring and having their distal ends unobstructed, cross pins extending through the tubes adjacent their distal ends and engaged through said terminal eyes of the spring, and a pair of hooks for connecting the tubes and the spring to a door frame and to a door pivoted to the cross pins and extending freely therefrom through the open unobstructed distal ends of the tubes.

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