

Sept. 8, 1942.

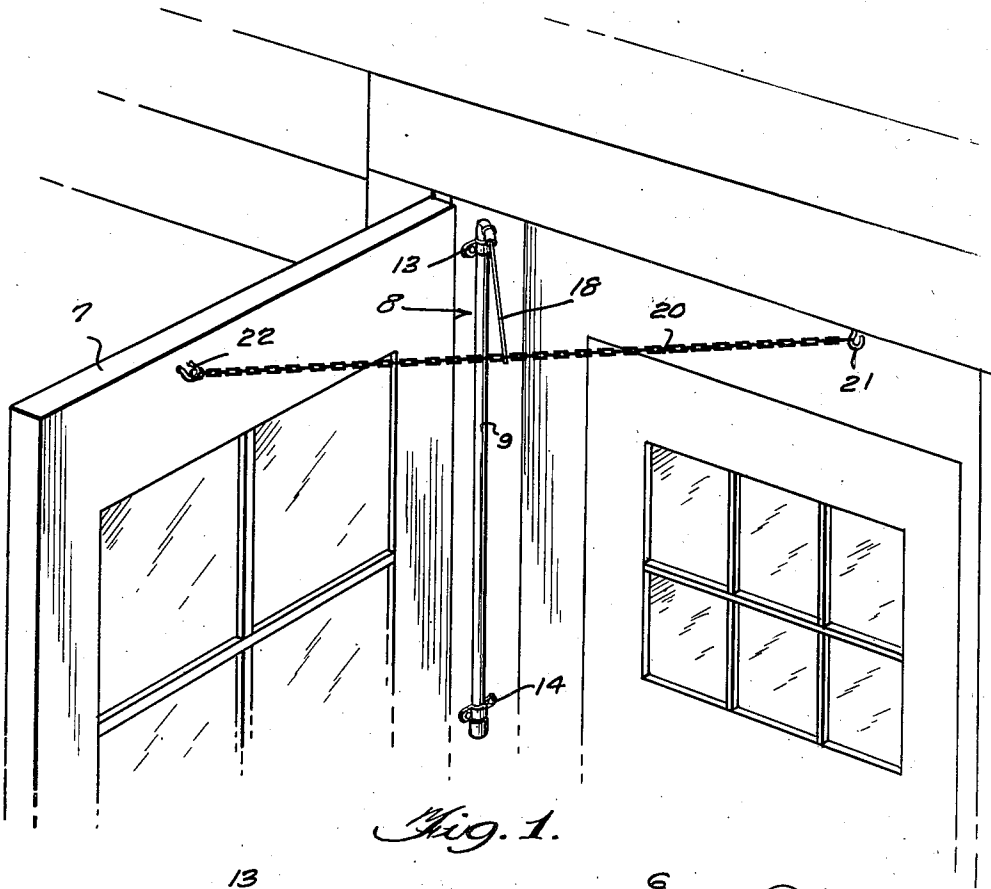
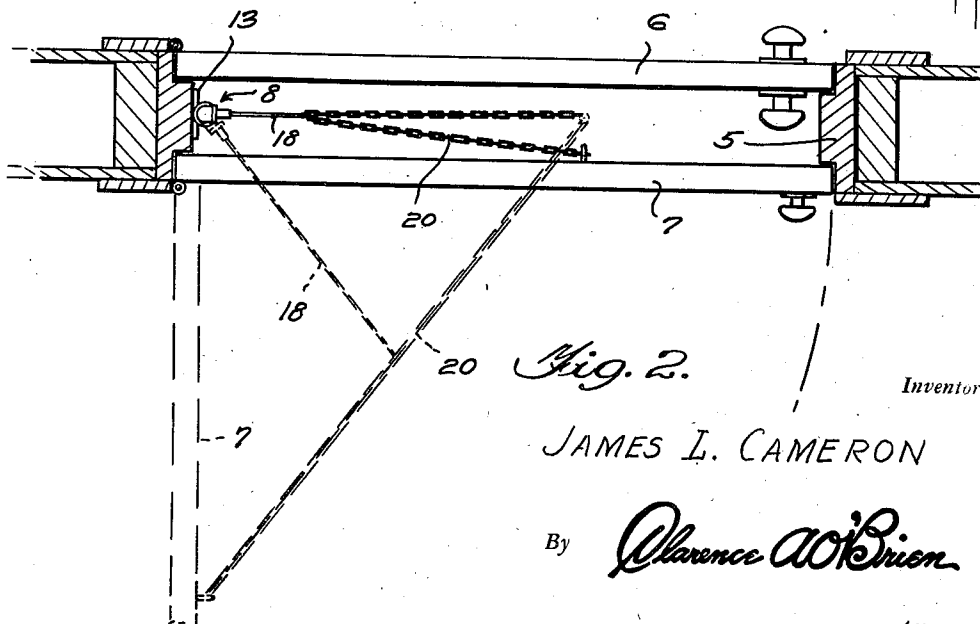
J. L. CAMERON

2,295,496

STORM DOOR PROTECTING AND CLOSING MECHANISM

Filed May 27, 1941

2 Sheets-Sheet 1



Inventor

JAMES L. CAMERON

By

Clarence A. O'Brien

Attorney

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J. L. CAMERON

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2 Sheets-Sheet 2

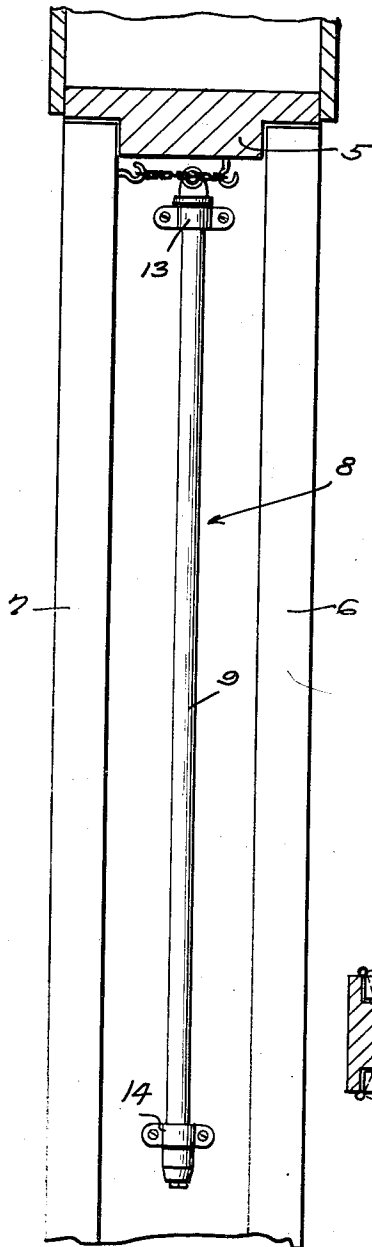


Fig. 3.

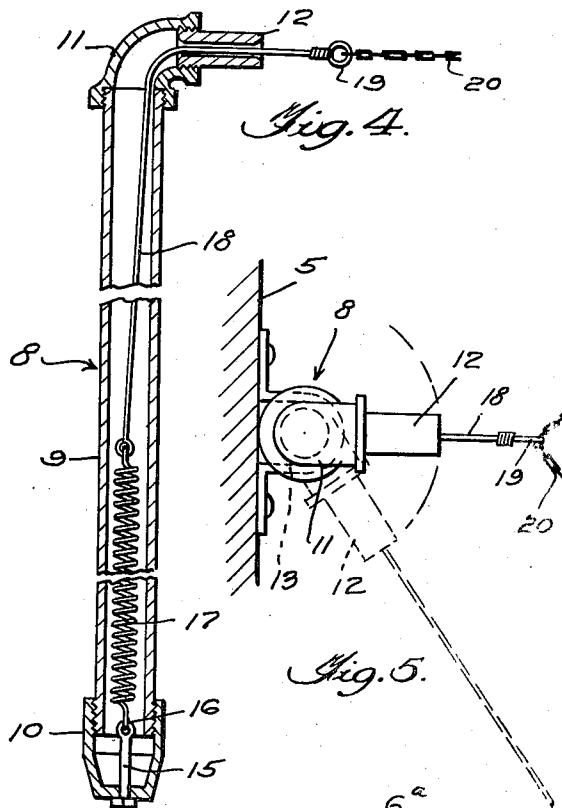


Fig. 4.

Fig. 5.

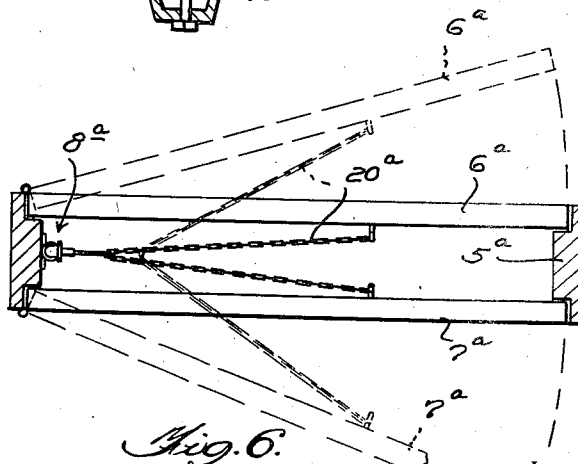


Fig. 6.

Inventor

JAMES I. CAMERON,

By

Clarence A. O'Brien

Attorney

UNITED STATES PATENT OFFICE

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STORM DOOR PROTECTING AND CLOSING
MECHANISM

James L. Cameron, Eldora, Iowa

Application May 27, 1941, Serial No. 395,468

2 Claims. (Cl. 16—78)

This invention appertains to new and useful improvements in attachment for storm doors to prevent the same from blowing open in windy weather and damaging the fastening means thereof.

Another important object of the invention is to provide protecting means for storm doors which will only permit the door to be opened a certain amount sufficient for passage of a person and which will automatically close the door upon being released by the person opening the same.

Other objects and advantages of the invention will become apparent to the reader of the following specification.

In the drawings:

Figure 1 represents a fragmentary perspective view showing the mechanism with the associated storm door in open position.

Figure 2 is a horizontal sectional view showing the mechanism associated with a storm door.

Figure 3 is a fragmentary vertical sectional view through a doorway showing the storm door in closed position and in association with the closing mechanism.

Figure 4 is a fragmentary longitudinal sectional view through the closing mechanism.

Figure 5 is a fragmentary sectional view showing the mechanism in plan view.

Figure 6 is a horizontal sectional view showing a slightly modified arrangement of the closing means.

Referring to the drawings wherein like numerals designate like parts, it can be seen that numeral 5 denotes a door frame in which is mounted an ordinary door 6 and a storm door 7. Numeral 8 generally refers to the protecting and closing mechanism for the storm door 7.

This mechanism 8 consists of an elongated barrel 9 externally threaded at its lower end for disposition into an internally threaded cap 10. The upper end of the barrel 9 is externally threaded for disposition into one end of an elbow 11, the other end of the elbow 11 receiving the threaded end of a tubular guide 12.

Loop defining brackets 13, 14 are secured to one side member of the door frame 5 after the barrel 9 has been properly positioned, the bracket 13 adjacent the elbow 11 while the bracket 14 is located adjacent the cap 10. There is sufficient play between the barrel 9 and the brackets 13 and 14 to permit rotation of the barrel 9.

A headed member 15 extends through the bottom of the cap 10 and has an eye 16 at its inner end, and to this eye 16 connects the lower end

of the tension spring 17. A flexible line 18 connects to the other end of the spring 17 and extends upwardly, through the elbow 11 and through the tubular guide 12. The upper end of this line 18 terminates in an eye 19 through which extends a chain 20. This chain 20 extends from an eye or hook 21 on the upper portion of the frame 5 to an eye or hook 22 located on the storm door 7.

It can now be seen that when the storm door 7 is opened and the chain 20 straightened out as shown in Figure 1, a pull is exerted by the flexible line 18 on the spring 17. As soon as the door 7 is released, the spring 17 will pull the line 18 into the barrel 9 and, of course, cause lapping of the chain 20 as shown in Figure 2, causing the storm door 7 to close.

As shown in Figure 6, reference character 5a denotes a door frame while reference characters 6a and 7a denote the usual door and storm door, respectively. The present invention is generally referred to by reference character 8a and the only difference is that the chain 20a extends from anchoring points on the doors 6a, 7a instead of from the frame 5a to the door 7a. In other words, after a person has opened the ordinary door 6a, he then opens the storm door 7a and as he goes outdoors the ordinary door 6a will automatically close without he or she taking the hands off of the storm door 7a.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and materials may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

1. In combination, a door frame, an ordinary door, a storm door, a flexible line connection between the doors, a vertically disposed barrel having a tension spring therein, and a second flexible line extending from the spring out of the barrel and to the intermediate portion of the first-mentioned flexible line.

2. A closure for doors comprising a tube having a longitudinally disposed tension spring therein anchored at its lower end to the lower end portion of the tube, a flexible line extending from the upper end of the spring and through the upper end of the tube, and attached to a door, said barrel being rotatably mounted on the frame for swinging in accordance with the opening and closing movement of the door.

JAMES L. CAMERON,