

July 22, 1930.

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1,771,299

SAFETY SPRING

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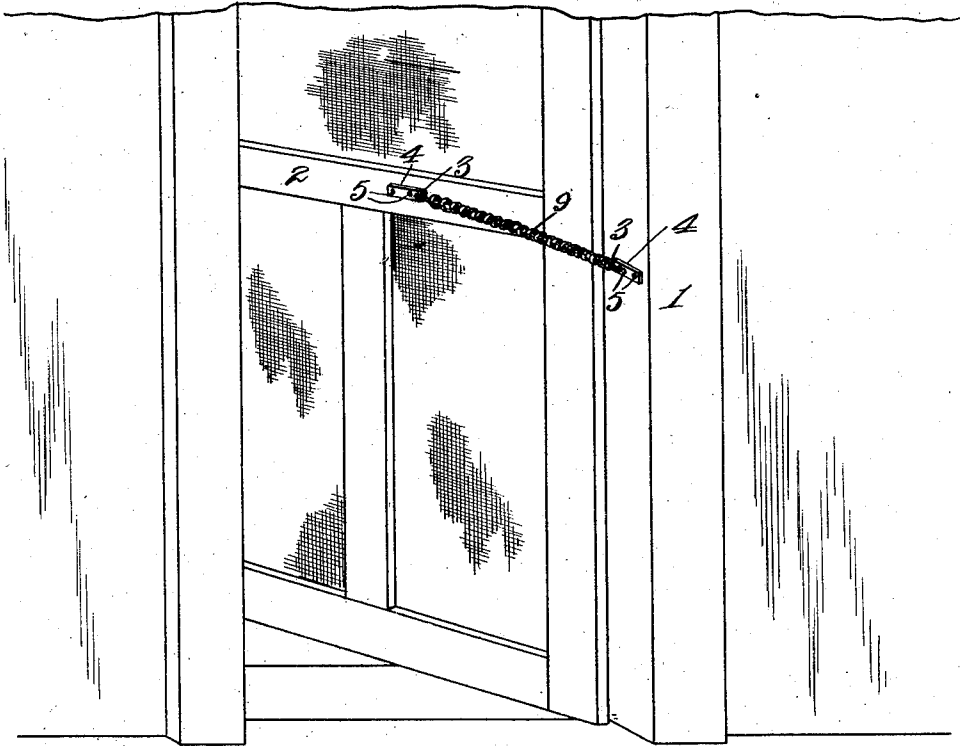


Fig. 1.

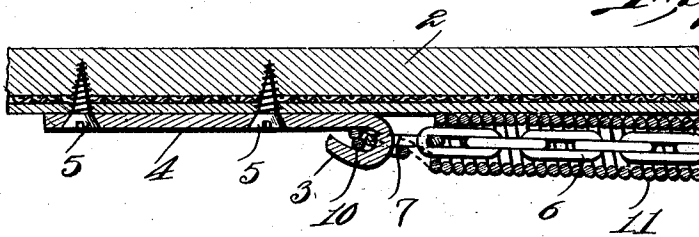
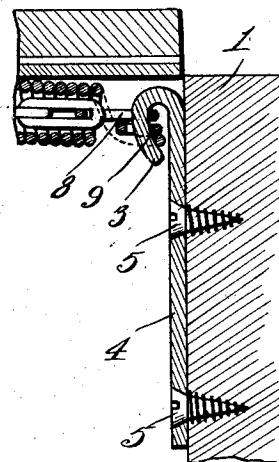
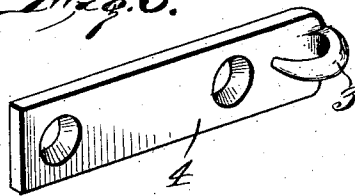


Fig. 2.

Fig. 3.



WITNESS

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SAFETY SPRING

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My invention relates to improvements in door and hinge safety springs, and it consists in the combinations, constructions and arrangements herein described and claimed.

5 An object of the invention is the provision of means for limiting the outward movement of a door or other hinged member, in order to protect the hinges, the said member or anything with which the door might collide.

10 Another object is the provision of a spring door closing device, in which the spring is protected by novel means.

A further object is to provide a device to render unnecessary the use of door buffers, which are unsightly and inconvenient.

15 Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claim.

20 My invention is illustrated in the accompanying drawings, forming part of this application, in which

Figure 1 is a perspective view of part of a door showing my device mounted thereon,

25 Figure 2 is a horizontal sectional view of the door, the jamb and my device mounted thereon, the door being in closed position, and

30 Figure 3 is a perspective view of one of the hooks, hereinafter described.

Referring to the drawings, I have shown therein a door jamb 1 and a door 2, which is suitably hinged thereto, and to each of which a hook 3 having a flat extended base 4, is suitably attached, as by screws 5.

35 To these hooks 3 are connected the extremities of a single link chain 6, as indicated at 7 and 8. Surrounding the chain 6, and virtually covering it is a tightly coiled helical spring 11, the opposite ends of which are also connected with the hooks 3 as indicated at 9 and 10 respectively.

40 I prefer to use a chain composed of long narrow links as shown in Figure 2, which are slidable each on the other but I do not wish to limit myself to this construction, as almost any single link chain is practical.

45 It will be observed that in operation, when the door or other hinged member with which this device is connected, is moved to an open

position, the chain will limit the extent of such opening when drawn taut due to the sliding of the links and that the hooks and chain must bear all undue strain, and when the door or other hinged member is released, the spring by contracting will automatically pull said door or other member to a closed position and at the same time take up the slack of the chain by virtue of the links sliding inwardly on each other.

60 It will also be observed that the chain also limits the expansion or outward movement of the spring, thereby preserving the elasticity of the same and preventing it from breaking.

65 It will be noted, also, that the spring encloses the chain, thereby preventing the chain from rattling, making the device more compact and giving the whole a more pleasing appearance.

70 It will also be noted that the ends of the chain and of the spring are independent of each other and are independently connected with the attaching hooks 3; by this arrangement, if by any chance either the chain or spring should break it can be readily replaced without sacrificing the other part.

75 I claim as new and desire to secure by Letters Patent:—

80 A device of the character described comprising a single link chain, a tightly coiled helical spring enclosing said chain and free therefrom, a pair of elongated plates terminating at one end in rearwardly extending hooks, the opposite ends of the chain and spring respectively being independently anchored in said hooks.

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