

G. I. ROCKWOOD.
 STRUT FOR AUTOMATIC SPRINKLERS.
 APPLICATION FILED DEC. 11, 1908.

956,733.

Patented May 3, 1910.

Fig. 1.

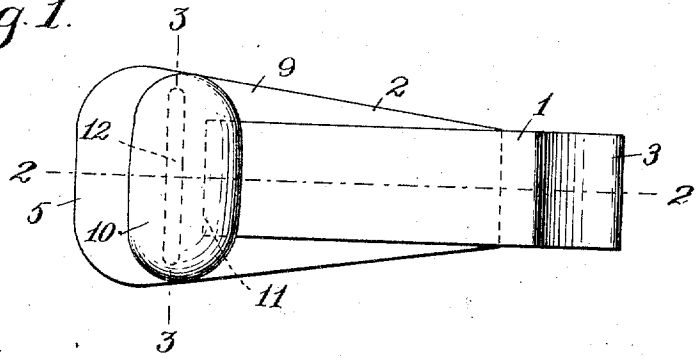


Fig. 2.

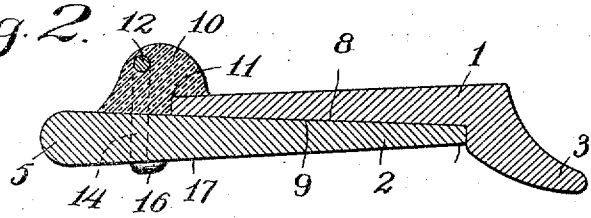


Fig. 3.

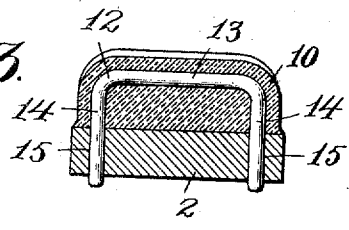
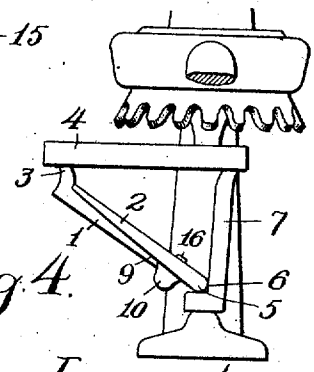


Fig. 4.



Witnesses

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STRUT FOR AUTOMATIC SPRINKLERS.

956,733.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE I. ROCKWOOD, a citizen of the United States, residing at Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented a new and useful Improvement in Struts for Automatic Sprinklers, of which the following is a specification, accompanied by drawings forming a part of the same, in which—

Figure 1 is a top view of my improved strut. Fig. 2 is a longitudinal section on line 2—2, Fig. 1. Fig. 3 is a transverse section on line 3—3, Fig. 1, and Fig. 4 is a side view on a reduced scale of an automatic sprinkler, showing my improved strut in position.

Similar reference figures refer to similar parts in the different views.

My present invention relates to a brace or strut for an automatic sprinkler, comprising two pieces held together by fusible material and arranged to separate at a predetermined degree of heat, and has for one of its objects to provide means for preventing the separation of said pieces before the predetermined degree of heat has been reached, and it consists in the construction and arrangement of parts as hereinafter described and pointed out in the annexed claims.

Referring to the accompanying drawings, 1 and 2 denote the separable pieces of the strut, arranged to form a part of an automatic sprinkler, as shown in Fig. 4, with the end 3 of the piece 1 arranged to engage one end of a horizontal lever 4, and with the end 5 of the piece 2 arranged to engage a shoulder 6 of a vertical post 7, the other end of which post 7 forms a fulcrum for the lever 4, as shown in Fig. 4. This arrangement of post, strut and lever is well known in automatic sprinklers and forms no part of my invention. The pieces 1 and 2 of the strut are held with their surfaces 8 and 9 in contact, by means of a block of fusible material 10 in contact with the end 11 of the piece 1 and with the surface 9 of the piece 2. Embedded in the fusible material is a staple 12, having a portion 13 parallel with and transverse to the surface 9. At either end of the portion 13 of the staple 12 arms 14 extend toward the surface 9, and, passing through openings 15 in the end 5 of the piece 2 are bent into hooks 16, engaging the surface 17 of the piece 2.

The staple 12 is of relatively non-fusible

material, and in the operation of the device forms a secure attachment of the block 10 to the surface 9 of the piece 5, as long as the fusible material remains intact and preserves its stiffness. Inasmuch as the strain upon the strut is in a direction tending to separate the end 11 from the surface 9, and is resisted by the block 10 in contact with the end 11 and attached to the surface 9 by the staple 12, as long as the block 10 is unaffected by the temperature, the separation of the end 11 from the surface 9 is prevented. As soon as the degree of heat required to melt the block 10 is reached, the block 10 no longer offers resistance to the end 11 in its movement of separation from the surface 9, and it is no longer held in firm contact with the surface 9 by the staple 12, and the end 11 quickly flies away from the surface 9. It is, therefore, immaterial with regard to the separation of the pieces 1 and 2 whether the surfaces 8 and 9 are united by fusible material or not; the pieces cannot separate until the proper degree of heat to fuse the block 10 is reached, when the fusible solder would also be melted. The strut is thereby completely held from separating by the block 10 alone before said predetermined degree of heat is reached. In no case is the adhesive quality of the solder, or of any fusible material composing the block 10, relied upon to prevent the separation of the pieces 1 and 2, but the stiffness or strength of the material 10 alone holds the end 11 of the piece 1 in contact with the surface 9 of the piece 2, and the end 11 is not released until the resisting quality of the block 10 is destroyed by the rising temperature. When this happens, either the connection by the staple 12 with the piece 2 is loosened, so as to release the end 11, or the shape of the block 10 is otherwise changed by the force tending to separate the end 11 and the piece 2, with the same result.

I claim,

1. A brace for an automatic sprinkler, comprising members arranged to separate by a rocking movement of one member around the end of the other member, but held from such separation by a block of fusible material attached to the fulcrum member by a nonfusible means of attachment beyond the swinging end of the rocking member, said block of fusible material arranged to inclose said swinging end.

2. A brace for an automatic sprinkler,

comprising members arranged to separate by a rocking movement of one member around the end of the other member, and a block of fusible material attached by a non-fusible means of attachment to said fulcrum member and arranged to contact with the swinging end of the rocking member to prevent the separation of said members, said nonfusible means arranged beyond said swinging end in order to exert no direct force against its movement.

3. A brace for an automatic sprinkler, comprising separate members having surfaces in contact and arranged to separate by a rocking movement of one member around the end of the other member, a block of fusible material capable of being softened by a predetermined degree of heat in contact with the outer side of the swinging end of said rocking member opposite to said contacting surfaces, and nonfusible means of attaching said block to said fulcrum member beyond said swinging end.

4. A brace for an automatic sprinkler, comprising members arranged to be separated by strain upon said brace, a block of fusible material arranged to contact with the outer side of the swinging member, and a staple of nonfusible material inclosed in said block with its ends attached to the stationary member.

5. A brace for an automatic sprinkler comprising separate members having surfaces in contact parallel with the line of strain upon said brace, a block of fusible material in contact with the contacting surface of one member and arranged to contact with the outer side of the other member parallel with said contacting surfaces, and a

staple of nonfusible material passing through said block with its ends attached to said first member.

6. A brace for an automatic sprinkler, comprising members arranged to be separated by the strain on said brace, but held from such separation by a block of fusible material arranged to contact with the outer side of one member and attached to the other member by nonfusible means, said nonfusible means entirely inclosed in said fusible block, whereby said nonfusible means is protected from corrosion.

7. A brace for an automatic sprinkler, comprising members arranged to be separated by the strain on said brace, but held from such separation by a block of fusible material arranged to contact with the outer side of the end of one member and attached to the plane surface of the other member beyond said end by nonfusible means, said means entirely embedded in said block to prevent corrosion.

8. A brace for an automatic sprinkler, comprising members arranged to be separated by the strain on said brace, but held from such separation by a block of fusible material attached to the plane surface of one member by nonfusible means of attachment approximately corresponding in width to said member, said block inclosing the end of the other member and approximately semi-globular in shape to inclose said means of attachment.

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Witnesses:

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