June 5, 1934. J. S. NELSON 1,961,567

FIRE EXTINGUISHER

Filed April 7, 1932

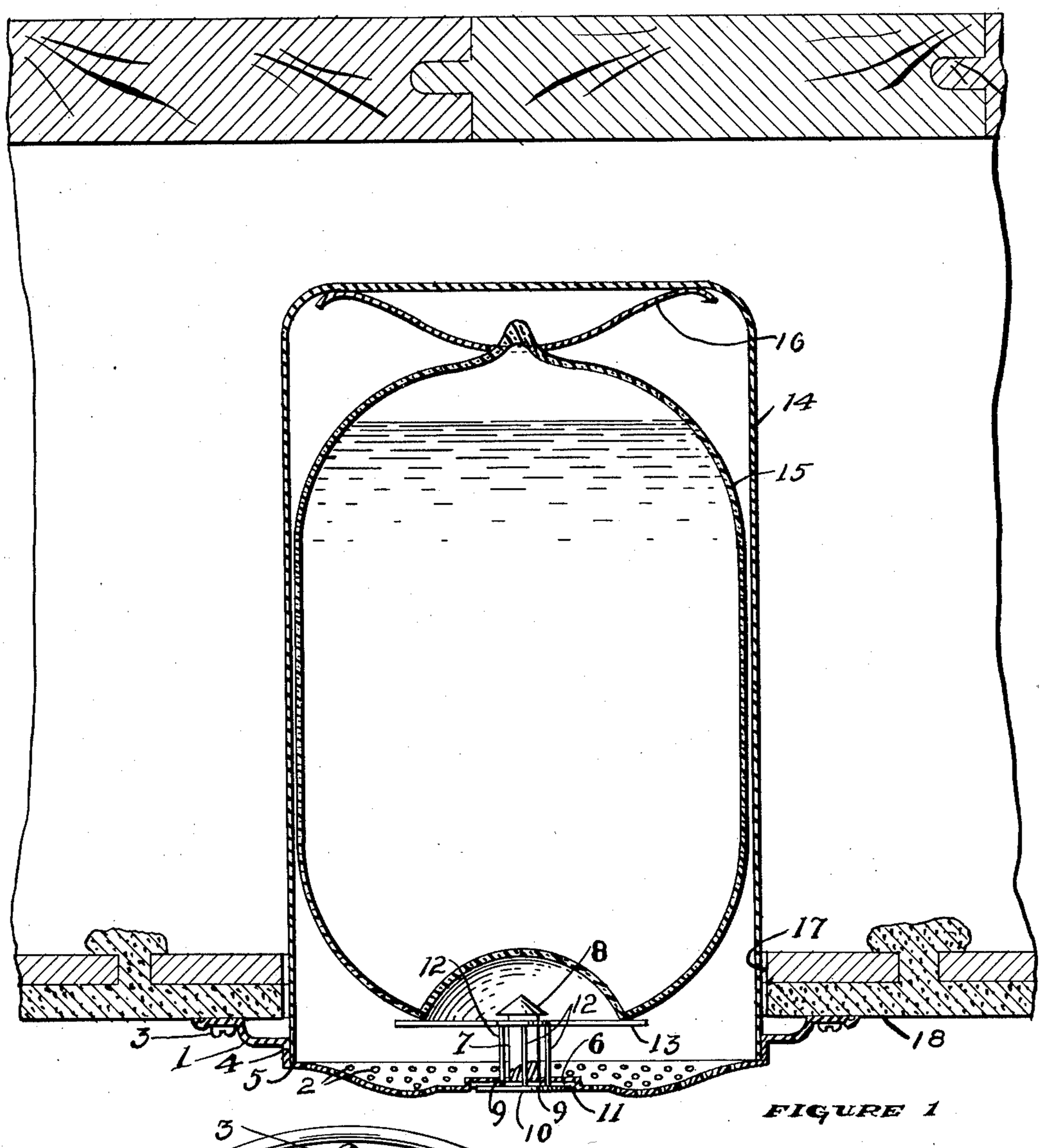

FIGURE 1

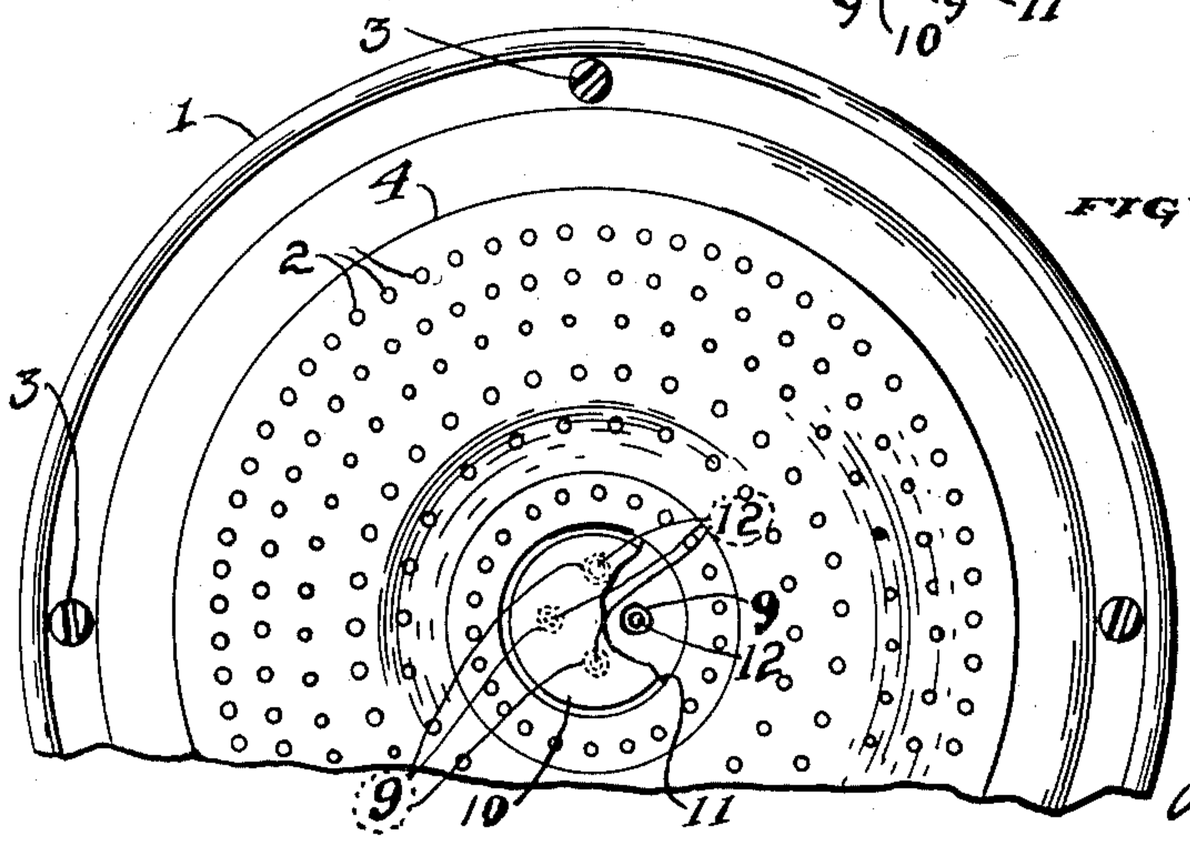

FIGURE 2

INVENTOR
Julius Sig. Nelson
John A. Naismith
ATTORNEY

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FIRE EXTINGUISHER

Julius S. Nelson, San Jose, Calif.

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4 Claims. (Cl. 169—26)

The present invention relates particularly to the grenade type of fire extinguisher wherein the grenade is shattered by means rendered operative by heat generated by the fire to be extinguished.

In known devices of this type the grenades are mounted upon brackets or supports which are in turn mounted upon the wall of the room in which they are to be used, and their use is highly objectionable because they do not lend themselves readily to the furnishing and decorative schemes of the room. And, furthermore, the means for mounting the grenades is of such a nature that they cannot be readily placed where the releasing mechanism will be most quickly acted upon by heat generated by a fire in the room, nor where the liquid released can be sprayed in the most efficient manner.

It is, therefore, an object of the invention to provide a device of the character indicated so constructed that it may be readily positioned in any room without noticeably interfering with its decorative scheme, and capable of being worked in and utilized as an element in said scheme.

It is another object of the invention to provide a device of the character indicated so placed as to be promptly acted upon when the temperature of the air in the room rises beyond a predetermined point, and so disposed as to spray the fire extinguishing liquid most effectively.

It is still another object to provide a device of the character indicated so constructed and arranged as to obviate the necessity of providing hinged parts such as hammers etc., and one that will be economical to manufacture, of few parts, simple in form and construction, light in weight, strong, durable, and highly efficient in its practical application.

In the drawing:

Figure 1 is a sectional view through a device embodying my invention in an operative position.

Figure 2 is a bottom plan view of the same, partly broken away.

In the particular embodiment of the invention herein disclosed, I show at 1 an ornamental plate perforated as at 2 and rigidly mounted on the ceiling of a room as at 3. This plate has an annular offset 4 formed therein to form a seat 5, and the perforations 2 are disposed within the field defined by the said offset. In the center of the plate is formed a shallow recess 6, and upon the center of the part 6 is disposed an upstanding pin 7 with a conical head as 8. Surrounding the pin 7 and passing through the plate 1 are holes 9.

At 10 is shown a disc of fusible metal set in recess 6 and secured in position by low temperature solder at 11. Mounted upon the upper side of the disc 10 are rods 12, one passing through each hole 9, the several rods supporting a horizontally disposed bar as 13.

A metal housing is shown at 14, this housing being open at its lower end where it seats upon the seat 5 formed in plate 1. Within the container or housing is a glass grenade 15 resting upon the bar 13 and supported in a vertical position by the walls of the housing. A leaf spring is shown at 16 bearing against the grenade and the top of the housing 14.

In positioning this device the parts are first assembled as above described, and the housing 14 is then thrust upwardly through an opening as 17 formed in the ceiling 18 of the room, in which position it is held securely by fastenings 3.

If a fire occurs in the room in which the device is placed the excessive heat generated thereby first becomes manifest along the ceiling level, and consequently it will act almost immediately upon the solder 11, melting the same and permitting the bar 13 to drop. When the supporting bar 13 is released the spring 16 throws the grenade down suddenly, causing it to break upon the pin 7, whereupon its contents is released and sprayed out into the room through the perforations 2.

It may be readily understood from the foregoing that I have provided a highly efficient and practical device, and the sole evidence of its presence in a room is the ornamental plate 1. It occupies otherwise unused space between the ceiling joists, has no swinging parts to get out of order, and is positive in action.

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, an apertured plate, an upstanding breaker element mounted on the plate, container supporting means disposed in an elevated position relative to the plate and having parts extending downwardly through the plate, low temperature fusible means for securing the support to the plate, a frangible container of fire extinguishing fluid mounted on the supporting means, and means for throwing the con-

tainer upon the breaker element upon the breaking down of the fusible means.

2. In a device of the character described, an apertured plate having an upstanding pin mounted thereon, an element mounted upon the under side thereof and secured thereto by means fusible at a low temperature, said element having parts extending upwardly through certain apertures in the plate, supporting means mounted on said plate and disposed in elevated relation to the plate, a frangible container of fire extinguishing fluid mounted on said supporting means, and means for throwing the container forcibly against the pin to break the same upon breaking down of the fusible means.

3. In a device of the character described, a housing having an apertured end, an inwardly directed breaker element mounted on said end, a frangible container of fire extinguishing fluid disposed in the housing, releasable supporting means for the container disposed in the housing and passing through said end and secured to the outer side thereof by means fusible at a given low temperature, and resilient means inserted between the other end of the housing and the container whereby to throw the container against the breaker element when the supporting element is released.

4. In a device of the class described, an annular plate having apertures therein and provided with spaced peripherally disposed means for securing the same to a horizontal support, heat releasable means for normally supporting a frangible container of fire extinguishing material in elevated relation to the top of said plate, a breaker element carried by said plate, and means for throwing said container upon the breaker element to break the same when released to permit the passage of the fire extinguishing material through the openings.

JULIUS SIG. NELSON.