Aug. 1, 1939. A. F. PLAYFAIR ET AL 2,168,136

FIRE EXTINGUISHING BOMB AND BRACKET THEREFOR

Filed Sept. 14, 1936

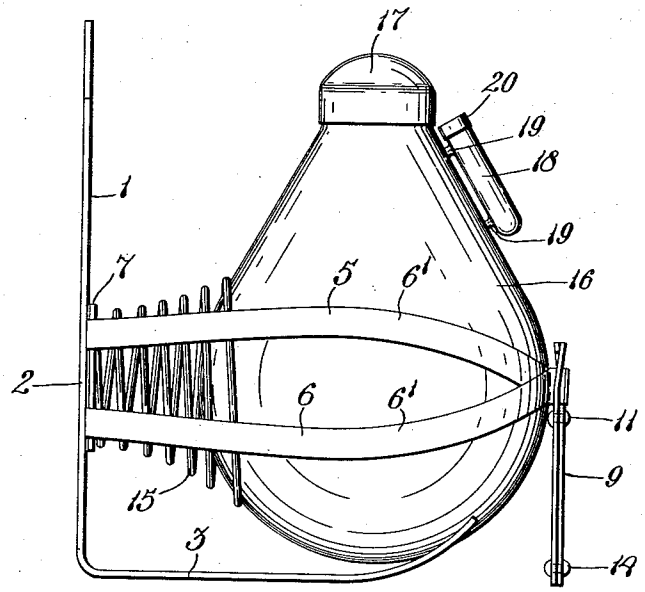


FIG. 1.

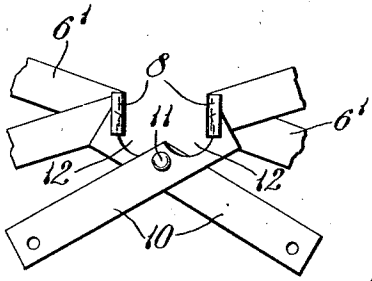


FIG. 3.

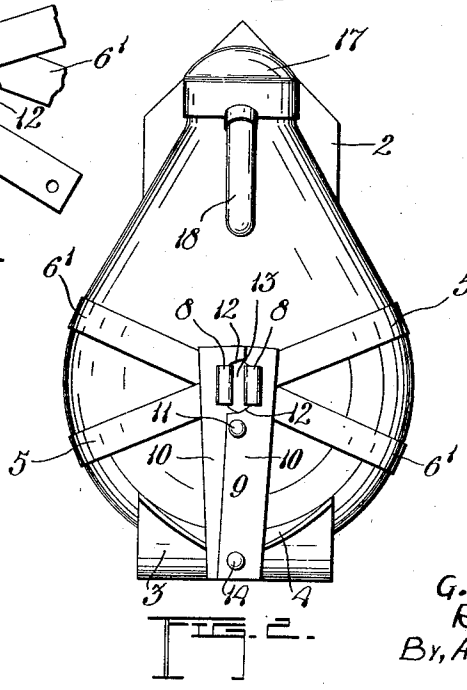


FIG. 2.

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UNITED STATES PATENT OFFICE

2,168,136

FIRE EXTINGUISHING BOMB AND BRACKET THEREFOR

Annie F. Playfair, Winnipeg, Manitoba, George W. F. Brisbin, Dominion City, Manitoba, and Rowland C. Jordan, deceased, late of Winnipeg, Manitoba, Canada, by Alice M. Jordan, executrix, Winnipeg, Manitoba, Canada; said Alice M. Jordan assignor to said George W. F. Brisbin and said Annie F. Playfair

Application September 14, 1936, Serial No. 100,794
In Canada September 13, 1935

3 Claims. (Cl. 169—26)

(Granted under the provisions of sec. 14, act of March 2, 1927; 357 O. G. 5)

This invention relates to improvements in fire extinguishing bombs and brackets therefor, and an object of the invention is to provide a bracket of this type which will release and project a fire extinguishing bomb therefrom, upon a predetermined temperature being reached.

A further object of the invention is to provide a device of this character in which the fire extinguishing bomb is filled with liquid carbon tetrachloride, which when the bomb is shattered, will form into a cloud to effectively smother a fire.

A further object of the invention is to provide a device of this character in which the fire extinguishing bomb is also provided with a small phial filled with liquid ammonia, which has the effect, upon release, of neutralizing any harmful effects which might result from humans inhaling the pure carbon tetrachloride gas.

A further object of the invention is to provide a device of this type which may be hung upon a wall or placed upon a shelf.

A still further object of the invention is to provide a device of this character which is both simple to construct and economical to manufacture.

With the above more important objects in view and such other minor objects as may appear as the specification proceeds, our invention consists essentially in the arrangement and construction of parts all as hereinafter more particularly described reference being had to the accompanying drawing in which—

Fig. 1 illustrates a side elevational view of the device.

Fig. 2 shows a front elevation of the same.

Fig. 3 illustrates the manner in which the bomb restraining yoke is opened, in order that the bomb may be expelled therefrom.

In the drawing like characters of reference indicate corresponding parts in the different figures.

This invention consists of a supporting bracket 1, composed of a vertical wall plate 2, which is turned at the lower end to form a platform 3. The forward end of this platform is upwardly curved and bifurcated to form a central aperture 4.

A bomb restraining yoke 5 consisting of a pair of arms 6, each arm being composed of a pair of arcuately formed resilient strips 6', is securely attached to the outer face of the wall plate 2 beneath a restraining plate 7 which extends across the width of the wall plate. The forward ends of each pair of the yoke strips 5 are joined together and are turned through an angle of 180° as at 8.

The yoke is normally maintained in a closed position by a releasing clip 9 which consists of a pair of legs 10 pivotally attached by a rivet 11 made from steel or other hard metal. The portions of the legs 10 above the rivet 11, are provided with opposed recesses 12 which combine to form an aperture 13 through which the turned ends 8 of the yoke are inserted as clearly shown in Figs. 1 and 2.

The releasing clip is normally kept in a closed position by means of a second rivet 14 positioned adjacent the lower ends of the legs 10. This rivet, it should be mentioned, is composed of a metal which possesses a low fuse point, such as lead or one of the lead-tin alloys.

Secured to the forward face of the restraining plate 7, is a flexed beehive spring 15, the free end of which, is designed to bear against a glass fire extinguishing bomb 16 which is held in position upon the platform 3 by the embracing arms of the yoke 5. It should be noted that the strips 6, which compose the yoke, are so formed that the forward ends thereof fit snugly against the surface of the bomb.

This bomb is filled with a fire extinguishing liquid, carbon tetrachloride having been found admirable for this purpose, and the bomb is then sealed by a cap 17.

The fumes which arise from carbon tetrachloride, due to the chlorine contained therein, have been found to have a harmful effect upon humans and in order to neutralize this effect without impairing the usefulness of the extinguishing liquid in any way, we have attached a small glass phial 18 to the side of the bomb by glass links 19. This phial is filled with a solution of ammonium hydroxide, and is then sealed by a closure 20.

The structure of our device having been set forth, the mode of operation thereof will now be presented.

The bomb 16 is placed within the bracket, the spring 15 being brought to bear against the rear surface thereof to force the bomb against the yoke 5. If now the temperature of the surrounding air should rise, a point will be reached at which the rivet 14 will melt.

When this occurs, the releasing device 9 will open in the manner illustrated in Fig. 3 at which time, the force of the spring 15 will cause this device to completely disengage from the ends of the yoke. The spring 15 will then discharge the bomb from the bracket, where it may fall upon the floor and shatter, thereby releasing the fire extinguishing liquid contained therein, which will

rapidly volatize and form a cloud to smother the fire.

The phial 18 will be broken at the same time, and the ammonia released therefrom will have a tendency to neutralize the harmful effects of the carbon tetrachloride.

From the foregoing, it will be evident that we have designed a highly efficient type of automatic fire extinguishing device which is simple in construction, and consequently economical to manufacture.

Since various modifications can be made in the above invention, and many apparently widely different embodiments of same made within the scope of the claims without departing from the spirit and scope thereof, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense and we desire only such limitations placed thereon as are specifically expressed in the accompanying claims.

What we claim as our invention is:

1. The combination with a vessel containing a fire extinguishing solution from which chlorine may be liberated, of a holder, resilient embracing arms adapted partially to surround said vessel, spring means interposed between said vessel and said holder, means for permitting said arms to part upon the surrounding air reaching a predetermined temperature, and a breakable container in association with said vessel containing a chemical designed to neutralize said chlorine which may be liberated from said fire extinguishing solution.

2. The device as claimed in claim 1 in which the chemical within said container comprises liquid ammonium hydroxide.

3. The device as claimed in claim 1 in which the means for permitting said arms to part comprises a limited quantity of metal possessing a low fuse point.

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GEORGE W. F. BRISBIN.