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2,305,204

FIRE EXTINGUISHER

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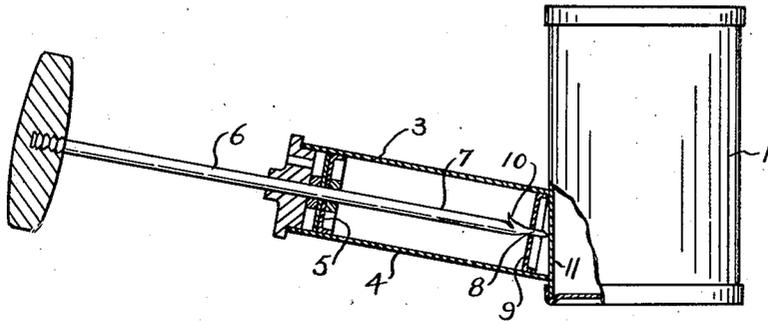


Fig. 1.

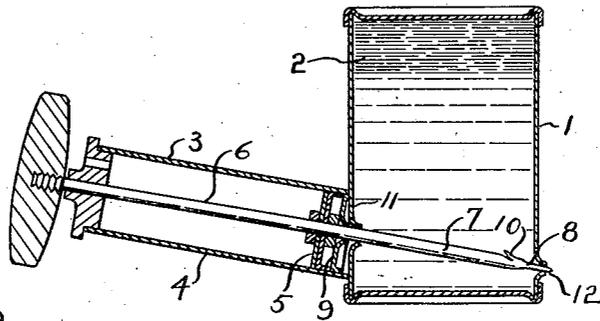


Fig. 2.

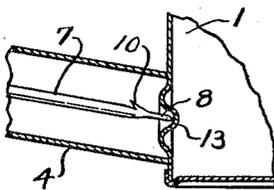


Fig. 3.

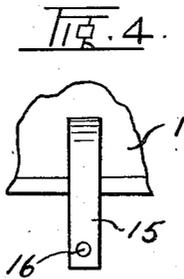


Fig. 4.

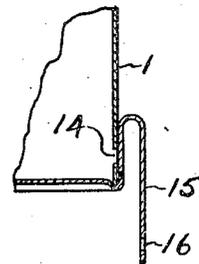


Fig. 5.

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FIRE EXTINGUISHER

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2 Claims. (Cl. 299—96)

My invention relates to improvements in fire extinguishers. The object of the present invention is to provide a fire extinguisher which is of such low cost as to warrant its installation in boats, cars, homes and in any place where there is a fire hazard; to provide a fire extinguisher which is incapable of drying out or becoming defective prior to use, so that the full value of its contents is available if and when required. Further objects are to provide an extinguisher which is convenient in form and easy to manipulate, and one which is capable of throwing a stream of extinguishing fluid a suitable distance for all practical purposes.

The invention consists essentially of a hermetically sealed container and a pump normally out of communication with the interior of the container and means connecting the pump to the container to discharge its contents under pressure, as will be more fully described in the following specification and shown in the accompanying drawing, in which:

Fig. 1 is a sectional view of the invention prior to use.

Fig. 2 is a sectional view of the invention showing the container punctured ready for use.

Fig. 3 is a sectional view showing a modification of the container wall to support the free end of the pump plunger in alignment.

Figs. 4 and 5 are respectively elevation and transverse sectional views of a hanging tab and discharge orifice closure for the container.

In the drawing like characters of reference indicate corresponding parts in each figure.

The numeral 1 indicates a sealed container of light material which is suitably filled with a fire deterring or extinguishing liquid 2. Mounted upon the container is a pump 3 consisting of a cylinder 4, a plunger 5 and a handled plunger rod 6 having a forward extension 7. The forward extension 7 of the plunger rod 6 is provided with an elongated point 8 which is cylindrical for the major portion of its length. This point is primarily projected through a light disc 9 of soft material such as lead which holds the forward extension in axial alignment with the cylinder 4. The forward extension 7 of the plunger rod 6 is provided with a barb 10, which serves to prevent said extension from being withdrawn from the side wall 11 of the container once it has been pierced as shown in Figure 2.

When it is required to use the device the handled plunger rod is forced inwardly to position as shown in Figure 2, the point 8 first pierces the wall 11 and subsequently pierces the opposite wall to provide a discharge orifice 12, the point having parallel sides provides an orifice of predetermined size which is not likely to be

increased by undue vigour being exerted in operating the pump. Subsequent to piercing the container as at 11 and forming the orifice 12, the reciprocation of the plunger 5 will cause air under pressure to enter the container from the cylinder 4 and to discharge the contents through the discharge orifice.

As an alternate means of aligning the forward extension 7 of the plunger rod 6 and supporting its point 8 I form in the container wall 11 a detent 13, see Figure 3, which is obviously punctured by the point 8 when bringing the device into use.

An alternate means of providing a discharge orifice is shown in Figures 4 and 5, wherein an orifice 14 is preformed in the wall of the container 1 which is covered and sealed with a light strip of tin 15 which would be bent back over the container rim to project as shown and form a tab for the purpose of suspending the device in inverted position from a convenient wall or support. The strip would preferably be apertured as at 16 to facilitate its being nailed up in place, so that when the device is wanted for emergency work it is wrenched away from the strip 15, thus leaving the discharge orifice 14 open for use and making it necessary to puncture only one wall of the container instead of two. Such construction would obviously permit of a shorter plunger rod extension than that required in the device as shown in Figures 1 and 2.

What I claim as my invention is:

1. A fire extinguisher comprising a sealed container, a hand operated pump attached at its delivery end to said container, said pump having a plunger and means thereon for piercing the container to form an opening to admit air pumped to enter the container to eject the contents from the container and a barb on the piercing means to prevent the total withdrawal of said means from the opening.

2. A hand pump adapted for attachment to a sealed container, said pump comprising a cylinder, a plunger rod, a plunger and an elongated forward extension to said rod, said forward extension being of smaller dimension than the rod and being provided with a piercing point at its free end adapted when initially thrust forwardly to pierce one side wall of the container to establish communication between the pressure side of the pump cylinder and the container and to pierce the opposite side wall of the container to produce a discharge orifice therefor and means to prevent the forward extension of the rod from being withdrawn from the interior of the container back into the pump cylinder.

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