June 12, 1945. P. C. WHARFF 2,378,345

INDICATOR AND DETECTOR FOR FIRE EXTINGUISHERS

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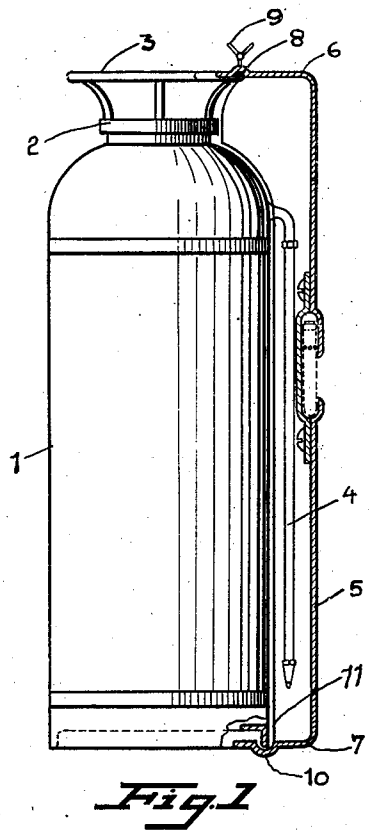



Fig. 1

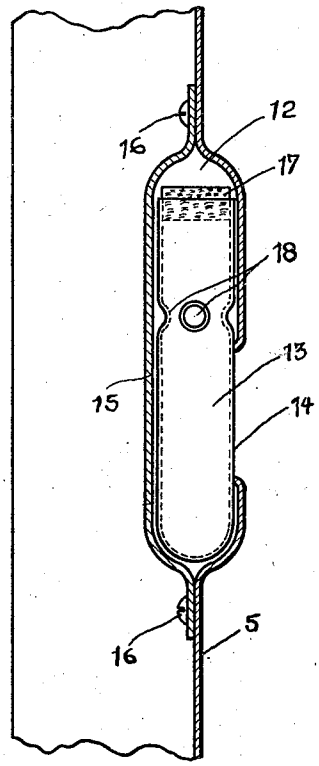



Fig. 2

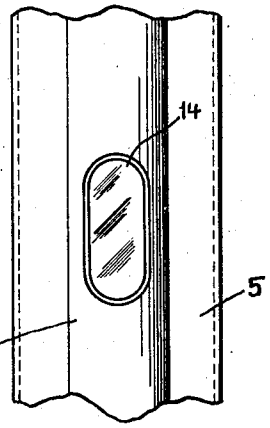



Fig. 3

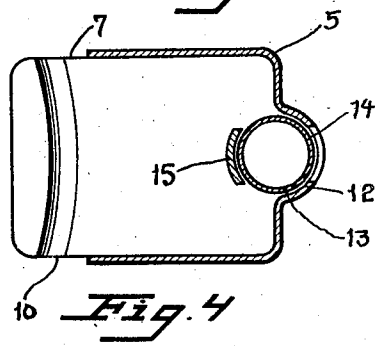



Fig. 4

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## INDICATOR AND DETECTOR FOR FIRE EXTINGUISHERS

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4 Claims. (Cl. 116—114)

This invention relates to hand fire extinguishers such as are commonly installed in factories, warehouses and the like as an emergency safeguard. Such extinguishers are normally hung in a fixed upright position and when operated, are taken down and usually inverted or otherwise moved about.

After use, the extinguishers must be refilled or recharged, but at present there is no way for an inspector or service man to determine the condition of an extinguisher by a casual inspection. As a result, it sometimes occurs that an extinguisher is empty when an occasion arises to use it; or in the case of sabotage, that the extinguisher has been filled with an inflammable rather than an extinguishing fluid.

It is therefore the principal object of the present invention to provide a tell-tale or indicator detector device, adapted to be mounted on an extinguisher, and by means of which an inspector can instantly determine whether or not the extinguisher has been disturbed since a previous inspection, either by actual use or by a sabotaging operation. Proper inspection is therefore facilitated with corresponding better safeguarding of the premises against damage from fires.

A further object of my invention is to produce a simple and inexpensive device, and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structures and relative arrangements of parts as will fully appear in the following specification.

Figure 1 is a side elevation of a fire extinguisher provided with the indicator, partly in section.

Figure 2 is a fragmentary enlarged vertical section through the indicating device.

Figure 3 is a fragmentary enlarged front view of the device showing the opening in the housing through which the indicator is visible.

Figure 4 is a fragmentary sectional plan view on line 4—4 of Figure 2.

In the drawing, the numeral 1 denotes the body of a conventional hand fire extinguisher, provided on top with a cap 2 surmounted by a circular ring-like handle 3, and having the usual depending flexible nozzle-hose 4.

The indicating or tell-tale device, arranged as an attachment readily applicable to such an extinguisher comprises a vertical housing 5 of substantially rectangular form in cross section, and open at the back. This housing is as long as the height of the extinguisher from ring 3 to the base, and at top and bottom is formed with horizontal intwined flanges 6 and 7 respectively.

The upper flange 6 is grooved as at 8 to engage over a portion of ring 3, and when so engaged is prevented from unauthorized detachment by a seal 9. The lower flange 7 is similarly grooved as at 10 to engage a portion of the circular depending base skirt or flange 11 of the extinguisher body.

Intermediate its ends, the housing is formed with a vertical outwardly pressed recess 12 forming a locating seat or socket for a transparent vial 13 of glass or the like. Intermediate the ends of the recess, the front of the housing is provided with a vertical window 14 so that a portion of the vial is exposed. The vial is removably held in the socket by a vertical closure member or strap 15 engaging the back of the vial and detachably secured to the housing above and below the socket by screws 16, which can only be withdrawn from within the housing, and hence only when the housing is detached from the extinguisher.

The vial 18 may be of any preferred construction, but for purposes of illustration it is shown as comprising a tubular body having an open top and a closed bottom. Said open top is normally closed by a stopper 17, and a constricted passageway is provided by means of indentations 18 located a short distance below the open end. No claim is herein made for the use of any particular pigment and a solvent therefor, because these substances are well known in the art. In the construction shown, however, a liquid solvent is poured into the vial so as to approximately fill the portion of the space below the indentations 18. The upper portion of the vial is filled with a pigment material capable of reacting with the solvent. The pigment, however, is sufficiently bulky in character as to prevent it from passing through the passage produced by the indentations 18. Thus, it will be noted that upon inversion of the fire extinguisher, the solvent liquid will pass through said passage and into contact with the pigment and become colored. When the extinguisher is again brought to its proper upright position the permanently colored liquid will flow back into the bottom portion of the vial.

Since the solution is presumed to be replenished when the extinguisher is refilled after use, an inspector, upon noting the solution through the window, will instantly know whether the extinguisher is in proper working condition, or is empty or has otherwise been disturbed since the previous inspection.

Having thus described my invention what I claim is:

1. An indicating attachment for hand fire extinguishers having in combination a housing provided with means at its ends for releasably engaging the fire extinguisher, said housing having an opening in one wall, means connected with the housing for removably supporting an indicating vial back of said opening.

2. An indicating attachment for hand fire extinguishers having in combination a housing provided with a front wall and means at its ends for releasably engaging the fire extinguisher, said front wall having an outwardly pressed recess having an opening therein, said recess being shaped to seat an indicating vial back of said opening, and means for releasably holding said vial within said recess.

3. An indicating attachment for hand fire extinguishers having in combination a housing provided at its ends with flanges for releasably engaging the upper and lower ends of the fire extinguisher, said housing having an opening in one wall therein, and means connected with the housing for removably supporting an indicating vial back of said opening.

4. An indicating attachment for hand fire extinguishers having in combination a housing provided with side walls joined by a front wall, said housing having fingers for releasably engaging said fire extinguisher, said front wall having an outwardly pressed recess provided with an opening therein, said recess being shaped to seat an indicating vial, and a removable closure member carried by said front wall at a location back of said opening and positioned to engage said vial.

PRENTICE C. WHARFF.