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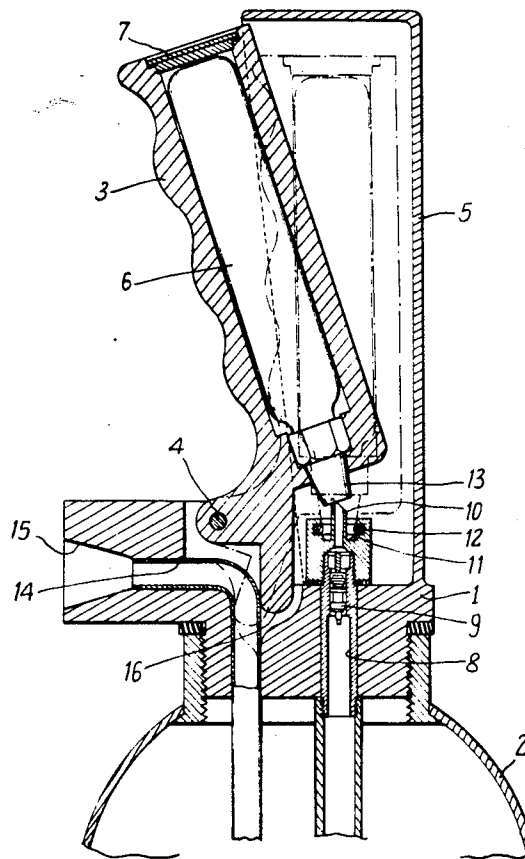
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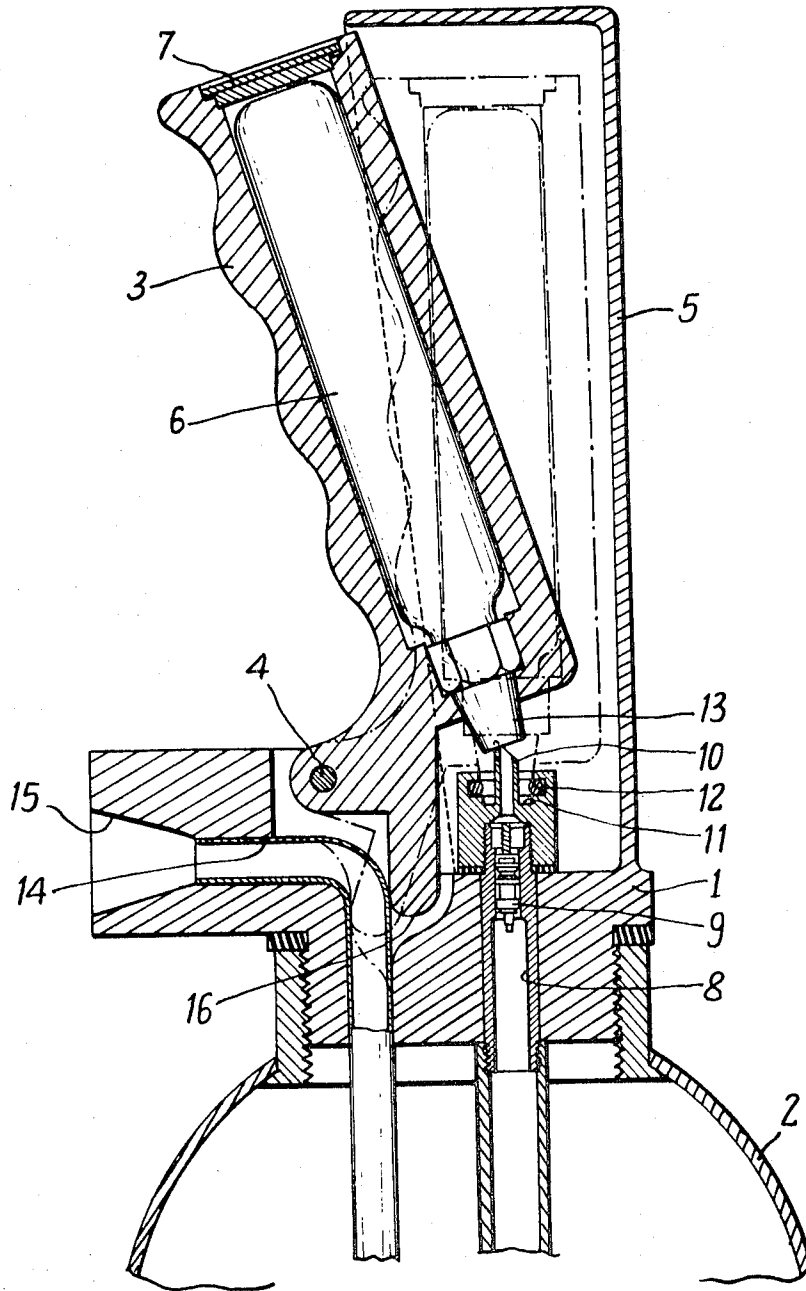
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[54] **APPARATUS FOR CONTROLLING THE FLOW OF EXTINGUISHING MEDIUM FROM A FIRE EXTINGUISHER**
 3 Claims, 1 Drawing Fig.

[52] U.S. Cl. **169/31, 239/309**
 [51] Int. Cl. **A62c 11/00**
 [50] Field of Search **169/30, 31, 33; 239/309, 576**

ABSTRACT: The head of the fire extinguisher carries a pivoting handle enclosing a sparklet adapted to be shifted first into an operative position for which the sparklet engages a hollow striker opening with a container enclosing the extinguishing medium. At the same time a projection on said handle crushes the yielding pipe connecting the container with the projecting nozzle. This subjects the container to the pressure of the sparklet gas and any further rocking of the sparklet in the opposite direction releases the yielding pipe so as to allow the projection of the extinguishing medium at the desired rhythm.





APPARATUS FOR CONTROLLING THE FLOW OF EXTINGUISHING MEDIUM FROM A FIRE EXTINGUISHER

The present invention has for its object improvements in fire extinguishers of the type wherein a sparklet containing a compressed gas is perforated when the extinguisher is to be used so as to ensure the desired projection of the extinguishing reagent. Said projection is controlled by a handle adapted to release and close instantaneously the sparklet, if required several times repeatedly until the load of the extinguisher is completely exhausted.

The present invention has for its object a particularly simple appliance the operation of which is an easy matter and to this end it provides an extinguisher head including a conventional sparklet enclosing a compressed gas and wherein the stationary body of said head compresses a hollow striker, a valve fitted between said hollow striker and the container of an extinguishing reagent and a yielding pipe connecting said container with the projecting nozzle, the pivoting handle carried by said head being provided with a housing for the sparklet and with a projection adapted to squash the yielding pipe in a manner such that a rocking of the handle closes on the one hand said yielding pipe and actuates on the other hand the reagent so as to subject the extinguishing reagent to the pressure of the gas in the sparklet whereby the projection of said reagent is started upon release of the handle and stopped upon further rocking of the handle.

There is illustrated by way of example in the accompanying drawing a cross-sectional view of a preferred embodiment of an extinguisher head according to the invention.

The extinguisher head includes a body 1 secured to the container 2 carrying an extinguishing reagent while a hollow handle is adapted to pivot with reference to said body 1 around a spindle 4 so that it may be telescoped within the flanged extension 5 of the body 1. A plug 7 closes the hollow handle 3 so as to hold fast the sparklet 6 in the latter. The body 1 of the head encloses furthermore a tube 8 adapted to feed the compressed gas out of the sparklet 6 into the container 2. A valve 9 is provided in said tube and above it a hollow striker or piercing element 10 is screwed into the tube. Said striker extends through a frustoconical recess 11 formed at the upper end of the tube while a tore-shaped packing 12 is inserted in an annular groove surrounding said recess. This packing cooperates with the frustoconical lower end of the sparklet in order to ensure fluidtightness during the pivotal movements of the handle 3 with reference to the flanged extension 5.

The body 1 of the head is provided furthermore with a yielding pipe 14 connecting the reagent container 2 with the projecting nozzle 15.

The operation of the arrangement is as follows:

Assuming the extinguisher is in the position illustrated and the sparklet is completely filled with compressed gas, the operator rocks the hollow handle 3 with his hand, so that it pivots into the extension 5, the position then assumed by the sparklet being drawn in dot-and-dash lines. During the rocking

movement, the frustoconical lower end of the sparklet 6 engages the annular packing 12 after which the striker 10 perforates the closure of the sparklet, the contents of which flow into the container 2 through the hollow striker and the open valve 9 while the projection 16 extending beyond the lower end of the handle squashes the yielding pipe. The extinguisher is thus set under pressure and is ready for operation.

If the handle is now released and is urged outwardly by elastic means which are not illustrated, the projection 16 releases the yielding pipe 14 which allows the extinguishing reagent carried in the container 2 to be urged out of the nozzle 15 under the action of the compressed gas. The valve 9 prevents any return projection through the hollow striker 10. It is an easy matter to control the output of the extinguisher through actuation of the handle 3 in order to crush the yielding pipe 14 to a varying extent. It is also possible to stop transiently the projection of the reagent and to release it thereafter repeatedly according to the desired rhythm of operation until the load of reagent is exhausted.

The improved extinguisher head described may be used with all water and powder projecting, preferably portable appliances, possibly of the type which is to be turned upside down.

Obviously the invention is not limited to the embodiment described and illustrated and covers all the modifications thereof falling within the scope of the accompanying claims.

1. A fire extinguisher comprising a container for an extinguishing medium, an outlet pipe therefor, at least a portion of said outlet pipe being formed of a collapsible, flexible material, a sparklet containing a compressed fluid, a body member mounted on said container, a hollow piercing element mounted on said body for piercing the sparklet to permit the compressed fluid to enter said container, a nonreturn valve adjacent said piercing elements for preventing return of the fluid from said container, a support element pivotally mounted on said body member for supporting said sparklet, said support element, when pivoted, causing said sparklet to be pierced by said piercing element to release the compressed fluid through said nonreturn valve into said container, means fixed to an pivotable with said support element for collapsing the flexible portion of said outlet pipe when said support element is pivoted, whereby said support element, when pivoted, causes said sparklet to be pierced by said piercing element and said outlet pipe to be closed by said means and whereby said support element may be subsequently pivoted in one direction or the other to vary the flow of extinguishing medium through said outlet pipe.

2. A fire extinguisher as claimed in claim 1, and further comprising flanged extensions mounted on said body member and wherein said support element is elongated and, when pivoted, telescopes between said flanged extensions.

3. A fire extinguisher as claimed in claim 1, wherein said body member is provided with an outwardly flaring recess in which said piercing element is mounted and further comprising an annular packing mounted in said recess to form a fluid-tight seal with the sparklet when it is pierced.

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