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FLEXIBLE HANDLE LARGE CAPACITY HORN

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Fig. 1.

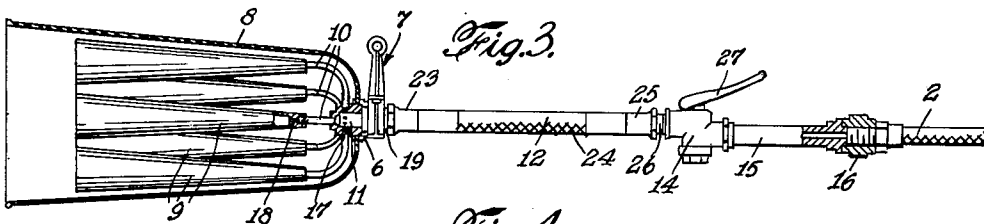
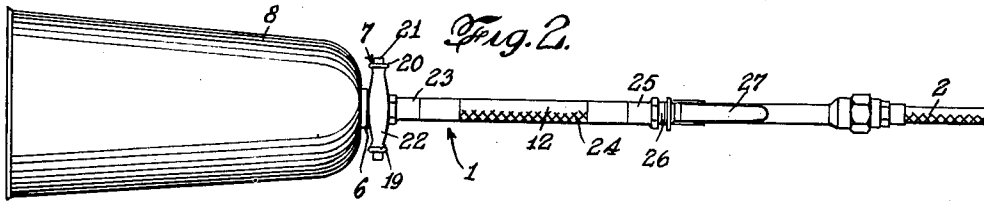
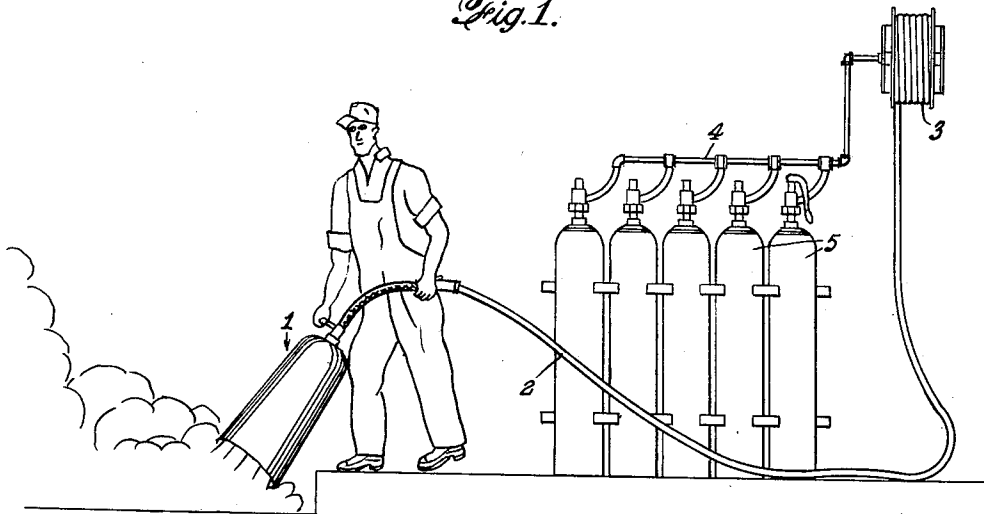
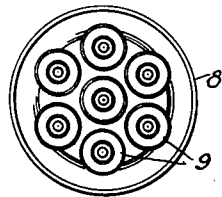


Fig. 4.



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FLEXIBLE HANDLE LARGE CAPACITY HORN

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2 Claims. (Cl. 169—11)

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This invention relates to fire extinguishers and is particularly suitable for incorporation in large capacity discharge nozzles for projecting an extinguishing fluid such as carbon dioxide. The discharge nozzle assembly generally used with fire extinguishers for such fluid is comparatively large and cumbersome as compared to the discharge nozzle used with water extinguishers.

In using the large discharge nozzles, in many cases difficulty has been had in maneuvering the nozzle into the most effective position for the discharge of the fire extinguishing fluid upon the fire.

The present invention aims to overcome the foregoing difficulty by providing a fire extinguisher discharge nozzle assembly having a shield and a control valve arranged for movement of one of these parts with respect to the other.

Another object of the invention is to provide a fire extinguishing nozzle assembly which is simple and economical in manufacture, efficient in operation and durable in use.

In accordance with the invention the foregoing objects are accomplished by providing a fire extinguishing nozzle assembly having a carrying handle attached to the body supporting the shield. The assembly is made with a reinforced flexible member interposed between the shield and the control valve. This construction is advantageous not only in permitting ease in the use of the nozzle assembly in congested spaces, but also because there is less hazard from accidentally entangling the nozzle or its handle in machinery or the like.

In the drawings:

Figure 1 is a view of a fire extinguishing nozzle assembly in accordance with the invention connected to a hose reel and a bank of fire extinguisher containers, the shield being shown positioned in a downwardly turned direction such as when in use in extinguishing a fire in a pit or the like.

Figure 2 is a top view of the nozzle assembly shown in Figure 1.

Figure 3 is a side view of the nozzle assembly in accordance with the invention with the outer shield broken away to show multiple inner shields preferably used in the construction of large capacity nozzles.

Figure 4 is an end view of the shield of the nozzle assembly.

Referring to the drawings, there is shown a fire extinguishing nozzle assembly 1 connected to a hose line 2 which may be coiled on a reel 3 and connected through a manifold 4 to a plurality

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of fire extinguishers 5 suitable for the storage of carbon dioxide or other fire extinguishing fluid.

The nozzle assembly 1 comprises a shield supporting member 6 made of any suitable material such as brass or aluminum and having rigidly attached thereto a carrying handle 7. An outer shield 8 is attached to one end of the shield supporting member 6 and may have positioned therein a plurality of smaller shields 9 each of which are connected by a discharge pipe 10 with a fluid passage 11 extending through the shield supporting member 6 and in fluid communication with the hose 2 and cylinder 5 through a flexible member 12 terminating at its inner end in a squeeze type shut-off valve 14. The outer shield 8 with the plurality of inner shields 9 is disclosed and claimed in a co-pending application owned by the assignee herein, Serial No. 167,219, filed June 9, 1950.

The shut-off squeeze valve 14 has incorporated therewith a rigid gripping or manipulating means 15 removably connected by suitable connection means 16 to the supply hose 2.

The shield supporting member 6 has its fluid passage 11 extending therethrough and terminating on its outer end in a plurality of threaded openings 17 for engagement by each of the ends of the discharge pipes 10. The outer ends of the discharge pipes 10 are threaded for the attachment of the inner shields 9 which have orifice plugs 18 molded or otherwise secured in the shields 9 as an integral unit therewith.

The carrying handle 7 is formed of a pair of handle supporting clamping members 19 and 20 which are secured together by a bolt 21 or the like for clamped engagement about the nozzle body 6 and fitted with a transversely extending hand conforming grip 22. The inner end of the shield supporting member 6 is exteriorly threaded for engagement with a connection nipple 23 of the flexible handle portion 12. While any suitable construction may be provided for the handle portion 12 providing the desired flexibility, it is preferred that the usual flexible hose is covered with a reinforcing means such as an armored coating 24 permitting the required flexibility but tending to maintain itself in any position in which it is placed. As may be seen in Figure 1, the flexible handle portion 12 is of a length so that the carrying handle 7 may be held in one hand of an operator while the valve member 14 may be held in the other hand.

The inner end of the flexible handle 12 is provided with a second nipple 25 of the same size and construction as nipple 23 for threaded en-

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gement with an outer threaded end 26 of the squeeze grip shut-off valve 14.

The valve member 14 may be of any conventional internal construction and is preferably actuated by a squeeze-grip type handle 27 adapted to be pressed by the palm of the hand of the operator while the operator's fingers engage the gripping means. This handle construction is advantageous in that the gripping means 15 may be readily manipulated and the valve operated merely by a squeezing action. In using a fire extinguishing assembly having a nozzle assembly in accordance with the invention, the shield is directed to the base of the fire by means of the carrying handle 7, assistance being given to the manipulation of the shield by engagement of the other hand of the operator with the gripping means 15 whereby the hose is pulled from the reel and dragged into a convenient working position. By reason of the flexible construction of the member 12, the valve and the shield may be moved with respect to each other so as to permit the use of the nozzle assembly in confined quarters.

While the invention has been described and illustrated to specific embodiments thereof, it is to be understood that other constructions may be resorted to without departing from the invention, therefore, the form of the invention set out above should be considered as illustrative and not as limiting the scope of the following claim.

I claim:

1. A large capacity discharge nozzle assembly for fire extinguishing fluid comprising a body member, a discharge shield having an inlet and an outlet and supported at its inlet end by the body member, a hand grip carrying handle for the shield positioned adjacent the inlet end of the shield, a squeeze grip valve member, a flexible hose member extending from the body member to the valve member and of a length such that the hand grip carrying handle may be pivotably held in one hand of an operator while the valve member is held in the other hand, and reinforcing means for the portion of the flexible member adapted to be held between the hands of the operator to cause the hose member to

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resist movement of the shield to the extent that when the assembly is held by the operator, the reinforced flexible member will maintain itself in any position in which it is placed to counterbalance the weight of the outlet end of the shield.

2. A large capacity discharge nozzle assembly for carbon dioxide fire extinguishing fluid comprising a tubular body member, a transversely positioned hand grip carrying handle extending from the body member, a discharge shield having a length greater than its diameter and supported at one end by the body member, a squeeze grip valve member, a flexible hose connecting the body and valve members and of a length such that the hand grip carrying handle may be carried by one hand of an operator while the valve member is carried by the other hand of the operator, and an armored coating for the flexible hose member, the armored coating adapted to resist movement of the flexible hose to the extent that when the assembly is held by an operator and the shield is pointed in a desired direction, the armored coating will maintain the flexible hose member in any position in which it is placed to counterbalance the weight of the shield so as to minimize fatigue of the operator.

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