

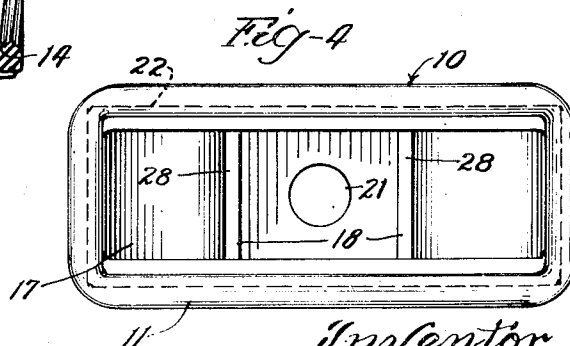
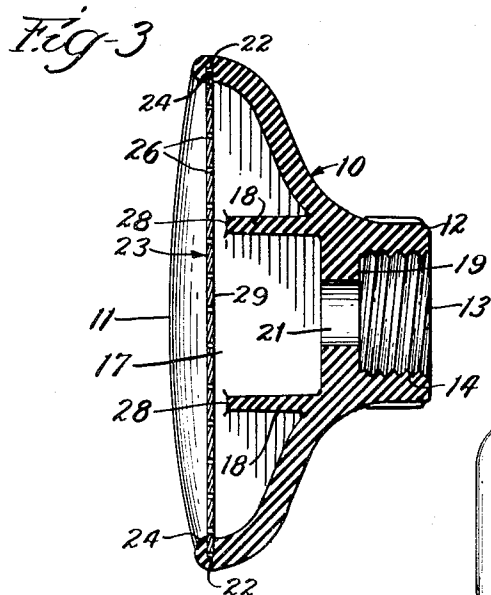
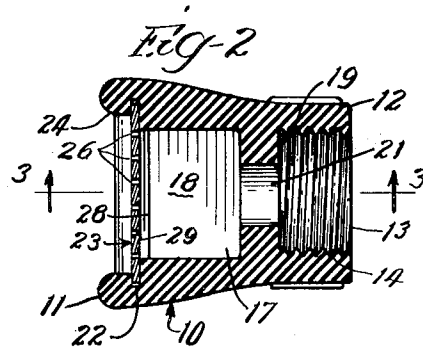
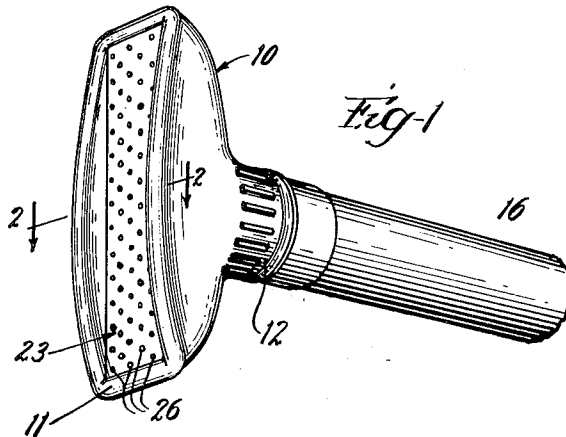
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SPRAY HEAD

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SPRAY HEAD

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1 Claim. (Cl. 299—141)

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My invention relates to a new fluid spray head and is particularly adapted to be attached to a hose for use as a garden spray.

A principal object of my invention is to provide a spray head of a type which does not require the use of gaskets to maintain a pressure-seal between the head and the hose or pipe connection.

Additional objects and advantages of my invention include: a spray head which is so constructed that it is substantially indestructible under the abuse commonly given such articles, a spray head which will not be subject to the deleterious chemical action which lessens the useful life of normal spray heads, and a spray head which is simple to form and assemble with only a nominal expenditure for tools, labor, and materials.

The above and other objects of my invention will be apparent from the following detailed description taken with the accompanying drawings, in which:

Fig. 1 is a perspective view of an embodiment of my spray head affixed to a garden hose;

Fig. 2 is a sectional view taken at lines 2—2 of Fig. 1;

Fig. 3 is a sectional view taken at lines 3—3 of the Fig. 2; and

Fig. 4 is an elevation of the face or front portion of the spray head with the spray plate removed to better illustrate the interior configuration of the head.

The body of the spray head, generally designated 10, has somewhat the appearance of a funnel with the face or front portion 11 being of rectangular shape and having one of the face dimensions elongated with respect to the other dimension. The neck or stem 12 of the funnel is formed with an internal opening 13 with suitable threads 14 for attachment to the male coupling of a garden hose 16.

In the particular embodiment of the invention illustrated in Figs. 1 to 4, the front portion of the spray head 10 is formed with a chamber 17 therein, and the chamber is divided into intercommunicating compartments by stiffening ribs 18. Between the neck opening 13 and the chamber 17 is an annular seat portion 19 having a reduced inlet passage 21 therethrough to allow the fluid to pass from the supply hose to the interior chamber 17 of the spray head body.

A groove 22 is formed in the wall of the spray head adjacent to the face 11 thereof, and is of a suitable thickness to receive a spray plate, 55

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generally designated 23, which is of a slightly greater dimension than that of the chamber 17, in order that when the spray plate has been inserted into the groove, the outer lips 24 of the face portion of the body will securely retain the spray plate to the body. The spray plate 23 has a plurality of small openings 25 therethrough to permit the passage and diffusion of the fluid.

The body 10 is formed of molded rubber having a durometer hardness of preferably from 65 to 70, although other substances having similar properties of resiliency and imperviousness to water, might be substituted therefor. The use of such material has several distinctive advantages. The transverse seat 19 will act as a gasket, and for this reason no separate gasket is required to prevent the fluid from leaking about the male hose coupling. To assist in this gasket action, the threads 14 which retain the male coupling are formed so as to be a tight fit with the threads of the hose coupling, and thus serve as additional sealing means against the passage of water about the coupling. With the sealing which the threads provide, it is possible to dispense with the valve seat 19 in some practices of the invention.

In view of the resiliency of the body 10 there is provided a means for stiffening the elongated faces of the body 10. In the embodiment illustrated two stiffening ribs 18 are positioned normal to the elongated face. The outer end 28 of these ribs end at a point sufficiently behind the inner face 29 of spray plate 23 to provide a passage whereby the fluid may enter all portions of the chamber 17. The opposite parallel bordering portions of the perimeter which defines the mouth of the funnel-shaped body are arched so as to provide reinforcements co-extensive with the long dimension of the body part.

It will be readily apparent to those skilled in the art that the spray head 10 is of such a type that it may be readily molded with the use of substantially inexpensive dies. The spray plate 23 may be a strip of aluminum or other metal having the holes 26 drilled or punched therein. As an alternative, the spray plate 23 may be a molded sheet of plastic material having sufficient rigidity to maintain its shape. In any event, after the spray plate and head have been formed, they may be readily assembled by spreading the outer face 11 of the body 10 sufficiently to allow the spray plate 23 to slip into the grooves 22 of the spray head 10. Once this is done and the face portion 11 allowed to return to its normal position, the spray plate will

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be securely retained in the spray head.

The stiffening members 18 act as tension members in preventing water pressure in the spray head from expanding the side walls of the head and thereby dislodging the spray plate 23 5 from its seat in the groove 22.

One particular advantage of the spray head of the invention is its indestructibility, and its ability to stand rough usage without harm.

The description of selected forms of my invention in specific detail for the purpose of disclosure, and to illustrate the principles involved, will suggest various changes and substitutions that may be made in practice, and I reserve the right to all such departures from my descriptions that lie within the scope of my appended claim.

I claim:

A spray head formed of moldable material to provide an elongated hollow body part tapering toward an annular stem formed with an internal thread to receive a male threaded hose fitting and communicating with said hollow body part through a reduced inlet the perimetrical portion of which provides a seat for the abutting end of a hose fitting, the perimetrical portion of said body part which defines the mouth being grooved around the entire inner face thereof and being arched along the opposite parallel bordering portions to form reinforcements coextensive with the long dimension of said mouth, said body part having integral internal reinforcing ribs formed

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on opposite sides of said reduced inlet disposed transversely to the long dimension of said body part and normal to and terminating short of the plane of said perimetrical groove, and a rigid perforate plate seated in said groove, said perforated plate being held within said grooved perimetrical portion of the elongated sides of said mouth by said internal reinforcing ribs, and in the grooved perimetrical portion of the ends of said mouth by said arched portions.

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