L. H. REAMS.

HOSE NOZZLE.

APPLICATION FILED MAR. 15, 1919.

1,364,141. Patented Jan. 4, 1921.

Fig. 1.

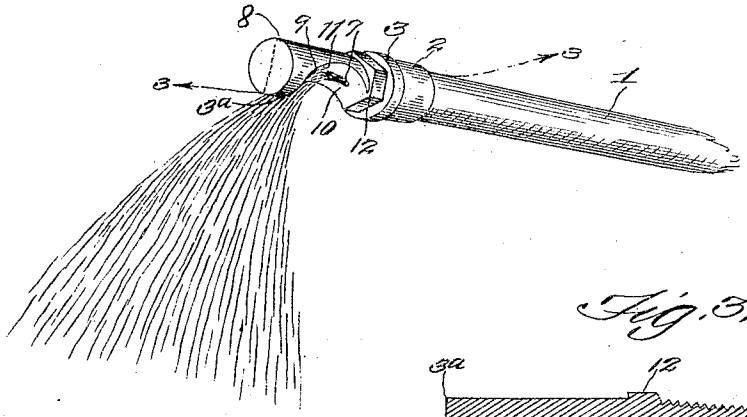
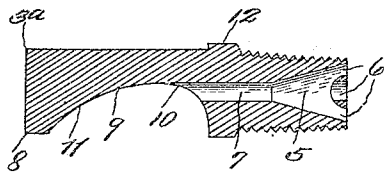


Fig. 3.



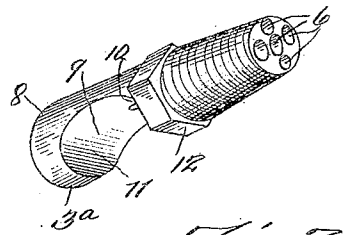


Fig. 2.

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HOSE-NOZZLE.

1,364,141. Specification of Letters Patent. Patented Jan. 4, 1921.

Application filed March 15, 1919. Serial No. 282,842.

To all whom it may concern:

Be it known that I, LEWIS H. REAMS, a citizen of the United States, residing at Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Hose-Nozzles, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to an improved nozzle, particularly adapted for a watering hose, especially used in greenhouses, for spraying young plants and the like.

The invention aims to provide a very simple and inexpensive device of this kind, which is very simple and efficient in operation, may be manufactured for a small cost and sold at a reasonable profit.

The invention further aims to provide a novel construction of device, for distributing water in large quantities, and in such wise as to spread the water over a large area.

The invention further aims to provide a nozzle of this kind, which is unbreakable and may deliver considerable water in less time than heretofore, and thereby cover more ground space.

The invention further aims to provide a nozzle that can be handled in such a manner as to never wet the clothing of the gardener, regardless of how close the nozzle is held to the body.

The invention further aims to provide an improved nozzle, the nozzle end of which is provided with a curved cutaway portion, against which, the water impinges as it leaves the nozzle, spreading the water in a fine misty spray, which will cover a wide area of ground space, the spray being of such a character as not to injure the plants.

The invention further aims to provide a nozzle of such a design and construction, that it cannot become clogged, since the same comprises a single outlet opening or passage, having an enlarged end at the entrance of the nozzle, in combination with a plurality of openings through which the water from the hose passes, and then into the enlarged portion, and then escapes through the single passage, which is so arranged with relation to the cutaway curved portion of the nozzle that the water will impinge against the wall of the cutaway portion and spread into a misty spray.

While the design and construction of the invention as now illustrated and set forth is deemed preferable, it is obvious that it is susceptible to changes, when reducing the invention to a practical form for commercial purposes. The right to these changes is claimed, provided they are comprehended within the scope of what is claimed.

The invention comprises further features and combination of parts as hereinafter set forth, shown in the drawings, and claimed.

In the drawings:

Figure 1 is a perspective view of a nozzle connected to a portion of a hose.

Fig. 2 is an enlarged detail perspective view of a nozzle.

Fig. 3 is a longitudinal sectional view on line 3—3 of Fig. 2.

Referring more especially to the drawings 1 designates a conventional form of hose one end of which is provided with a swiveled threaded coupling member 2. This coupling member has threaded end 3 into which the nozzle 3^a is threaded.

The threaded portion of the nozzle is hollowed out and provided with a conical chamber 5. One wall of this chamber nearest the hose is provided with a plurality of openings or apertures 6, through which the water from the hose passes into the chamber. The other end of the chamber terminates in a single opening or passage 7. By this construction of chamber and the plurality of openings, it is obvious that the nozzle cannot become clogged up. The outer end portion 8 of the nozzle is substantially cylindrical in contour, and one side thereof is provided with a curved cutaway portion 9. This cutaway portion is provided with a short curve, as shown at 10, adjacent which the single opening or passage from the chamber is located. The short curve of the cutaway portion merges into an elongated gradually curved wall 11. It is obvious from the drawings that since the single outlet passage is located as shown with relation to the short curved wall, and at the point where the short curved wall and the long gradual wall merge together, the water as it escapes from the single opening will impinge against the elongated curved wall and spread in a misty spray. Furthermore, this elongated curved wall will deflect or spread downwardly and from the gardener's hand on the tops of the plants, and with such a force as not to injure the plants. Intermediate the outer end portion and the

threaded portion of the nozzle a wrench engaging collar 12 is formed, so as to be engaged by a wrench for attaching the nozzle to the hose end.

The invention having been set forth, what is claimed as new and useful is:

A nozzle, comprising a body formed in one casting and having an integral flange at a point between the ends of the body, said body at one end beyond the flange being tapered and threaded for attachment to a hose, the threaded tapered portion having a conical elongated chamber diverging toward the extremity of the tapered threaded portion, the larger end of said conical chamber being provided with a web having a plurality of apertures, one of which being central of the web, the other being positioned adjacent to the central aperture, thereby acting to break up the force of the stream of water in its flow as it reaches the nozzle, the contracted end of said chamber terminating in a cylindrical passage concentric with the body, said body at its opposite end beyond the flange being provided with a cut-away portion the surface of which being curved in longitudinal direction correspondingly to the longitudinal curvature of an egg, said cut-away portion having its abrupt curved butt end immediately adjacent the outlet of said cylindrical passage, and having its gradually curved end portion merging into the same plane with the inner portion of the wall of said cylindrical passage, whereby as the stream of water leaves the cylindrical passage, the stream will be caused to spread gradually into a wide diverging thin sheet.

In testimony whereof I hereunto affix my signature in the presence of two witneses.

LEWIS H. REAMS.

Witnesses:
J. H. MAYOR,
A. S. HAZELTON.