

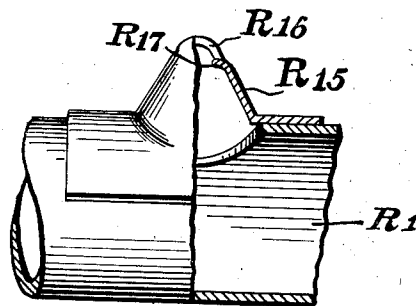
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SPRAY NOZZLE

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UNITED STATES PATENT OFFICE.

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SPRAY NOZZLE.

Original application filed August 17, 1922, Serial No. 582,396. Divided and this application filed July 30, 1923. Serial No. 654,520.

This invention relates to spray nozzles and aims to provide for even distribution over a considerable area of a fluid supplied at a slow rate and under a low pressure. A further object of the invention is to provide such a nozzle in a form that may be constructed at small cost.

In accordance with the invention, a nozzle is provided with a discharge slit and with deflecting means located near the ends of the slit and arranged to cause two streams of the fluid to impinge against each other just inside the slit. It has been found that such a nozzle projects a thin fan-like shaped spray through its discharge slit even when the fluid is supplied in small quantity and under low pressure.

While a nozzle embodying the invention is useful for many purposes, the nature of the invention may be understood from a detailed description of an illustrative nozzle forming part of a dish washing machine which is described and claimed in my co-pending application filed August 17, 1922, Serial No. 582,396, of which this application is a division. Such a nozzle is shown in the accompanying drawing which is an enlarged side view of the nozzle partly sectioned on the plane of its discharge slot.

The nozzle R^{15} , which is mounted on a supply pipe R^1 over a lateral opening therein, has a general conical form and is provided at its upper end with a short diametrical discharge slit R^{16} . The material of the nozzle is pressed in at each end of the slit R^{16} , so as to form an inwardly projecting deflector R^{17} just inside each end of the slit. The fluid flowing outwardly along opposite walls of the nozzle is directed in-

wardly by the deflectors R^{17} so that two streams of the fluid impinge against each other just inside the slit R^{16} . This has been found to result in projecting the fluid through the slit in the form of a very thin, fan-like spray.

The discharge slit R^{16} of the nozzle R^{15} may extend longitudinally of the supply pipe R^1 is shown. The nozzle R^{15} is stamped from a piece of metal and is provided with a cylindrically curved flange which may be sweated or otherwise secured to the pipe R^1 .

What is claimed is:

1. A spray nozzle having a general conical shape and provided with a diametrical slit across its apex and with deflecting surfaces inclined inwardly from its conical wall just inside the ends of the slit.

2. A spray nozzle comprising a hollow body having a discharge slit, and means for causing two streams of fluid to move in opposite directions longitudinal of the slit and to impinge against each other within the hollow body and just inside said slit.

3. A spray nozzle comprising a hollow body which decreases in cross-section toward its outer end, has a transverse slit across its outer end, and deflecting surfaces inclined inwardly from its inner wall just inside the ends of the slit.

4. A spray nozzle, comprising a hollow body which decreases in cross-section toward its outer end, is provided with a transverse slit across its outer end, and has portions bent inwardly from its conical wall at the ends of the slit.

In testimony whereof I have hereunto set my hand.

HENRY R. MERSELES.