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R. M. WILSON

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DISPENSING NOZZLE OR FAUCET

Filed June 20, 1944

FIG. 1

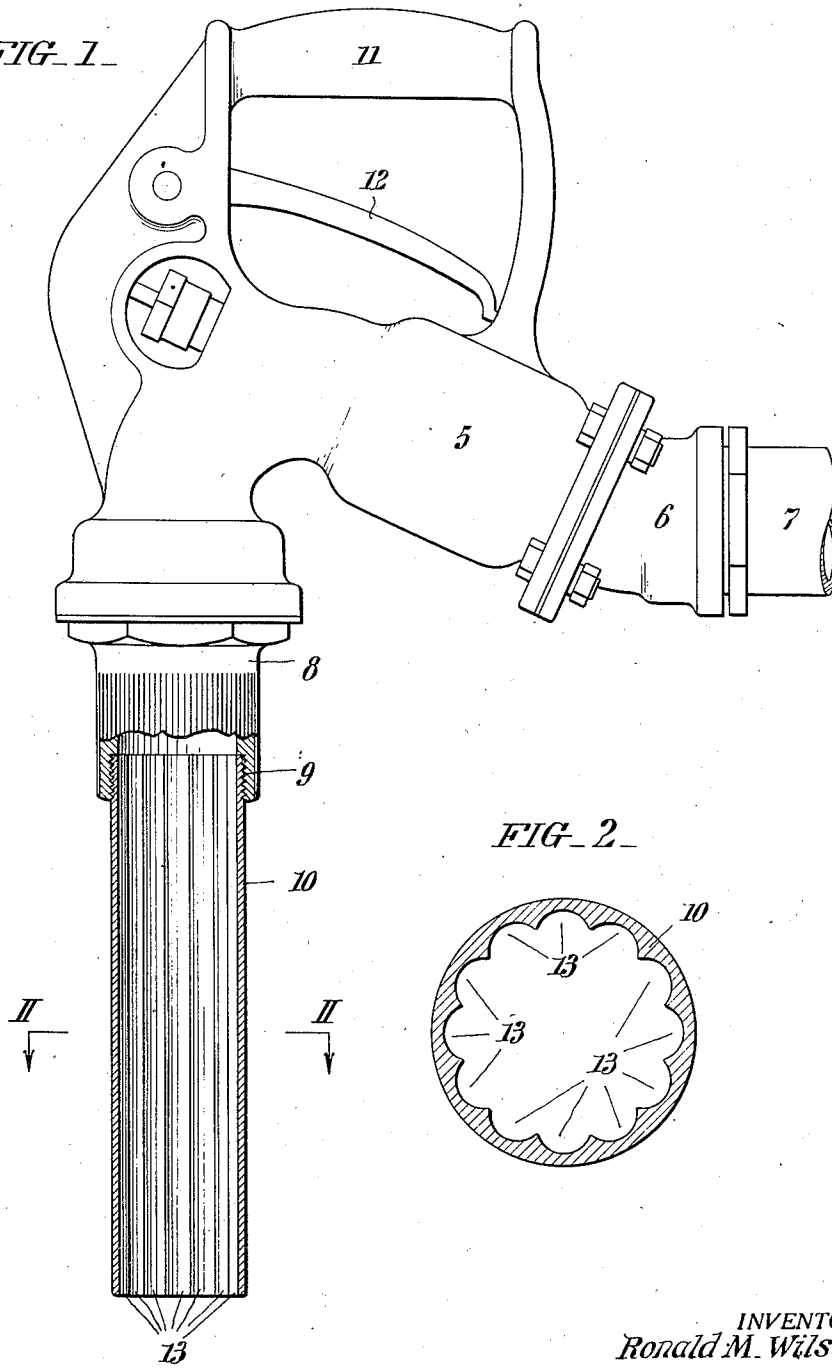
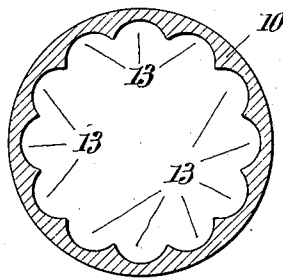


FIG. 2



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UNITED STATES PATENT OFFICE

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DISPENSING NOZZLE OR FAUCET

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mesne assignments, to William M. Wilson's
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Application June 20, 1944, Serial No. 541,215

2 Claims. (Cl. 222—567)

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This invention relates to dispensing nozzles or faucets, particularly to valve controlled nozzles of the type ordinarily used in filling the fuel tanks of automobiles, air craft, motor boats, etc. Discharge from nozzles of the kind referred to is invariably attended by violent swirling and turbulence of the liquids, which disturbance not only acts to retard the flow, but, in case of highly volatile fuels such as gasoline, has the tendency to accelerate evaporation with resultant loss of a considerable amount of the liquids during each dispensing or filling operation.

My invention has for its purpose to obviate the above drawbacks, that is to say, to prevent swirling and turbulence in the liquid discharge from the nozzles with a view toward promoting freer flow of the liquids and at the same time minimizing the losses through accelerated evaporation due to the agitation of the liquids.

How this desiderata can be readily realized in practice will appear from the description which follows of the attached drawings, whereof

Fig. 1 is a view, partly in side elevation and partly in longitudinal section, of a liquid dispensing nozzle suitably embodying the present improvement; and

Fig. 2 is a detail cross sectional view drawn to a larger scale and taken as indicated by the angled arrows II—II in Fig. 1.

The dispensing nozzle herein illustrated for convenience of exemplifying my invention is, generally speaking, of well known design and construction in that it has a body 5, with a coupling 6 at its horizontal inlet end for connection of a supply hose 7, and a coupling 8 at its pendant outlet end which is internally threaded as at 9 for removable connection of a tubular discharge tip 10. The nozzle is further provided as usual with a supporting handle 11 and a grasp lever 12 for actuating a control valve (not shown) within the body 5 in a well known way.

Instead of having a plain interior as ordinarily, the nozzle tip 10 is provided, in accordance with my invention, with longitudinal flutings 13 which, in the illustrated instance are evenly spaced cir-

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cumferentially, of uniform width and depth, and defined by grooves of smooth concavely-curved cross sectional configuration with sharp edged intervening ridges. Preferably the flutings extend throughout the length of the tip but this is not necessarily essential.

In the use of the nozzle it will be evident that the fluting within the tip will be effective in checking swirling and turbulence set up in the liquid in its passage through the nozzle body 5 past the valve therein. As a consequence, the discharge from the tip will be quiet and direct so that evaporation losses are substantially eliminated with promotion of freer and more rapid liquid flow.

If desired or found desirable in practice, the nozzle tip 10 may be tapered instead of being cylindric as shown herein by way of example, and the character and cross sectional configuration of the flutings varied to suit any special requirements which may arise. The immediately foregoing and other modifications I consider to be within the scope of the appended claims and have therefore deemed it unnecessary to separately illustrate them.

Having thus described my invention, I claim:
1. A nozzle for use with faucets and the like, in the form of a non-tapering cylindric tube with longitudinal internal flutings defined by circumferentially-arranged grooves of concavely rounded cross section, and separated by sharp-edged ridges.

2. An integrally-formed nozzle according to claim 1, having a solid wall and a smooth external surface.

RONALD M. WILSON.

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The following references are of record in the file of this patent:

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