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STRAINER FOR GASOLINE DELIVERY NOZZLES

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Fig. 1.

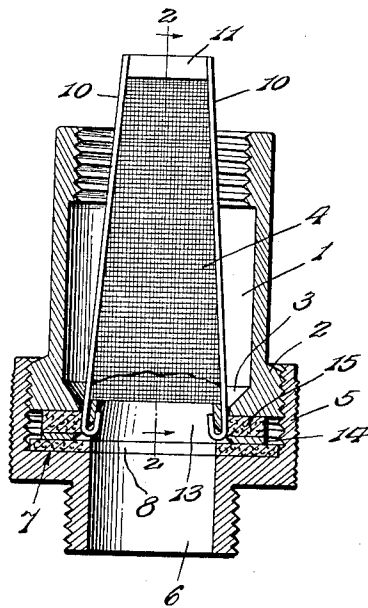


Fig. 2.

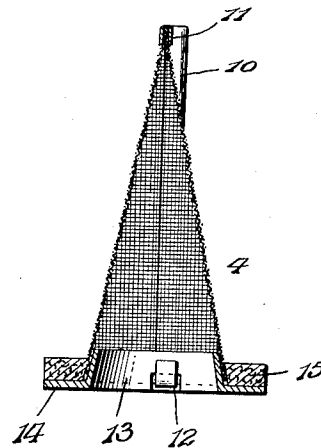


Fig. 3.

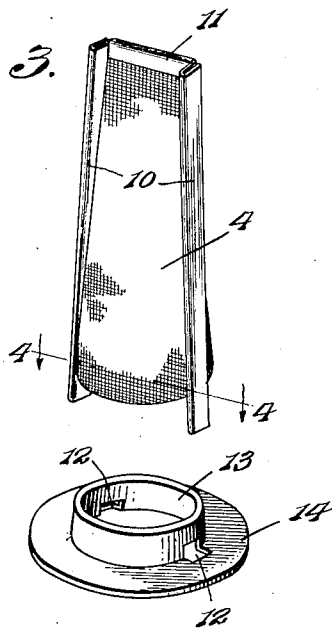
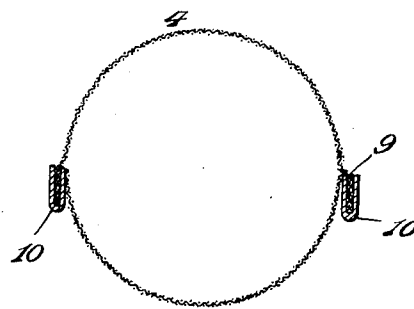


Fig. 4.



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STRAINER FOR GASOLINE DELIVERY
NOZZLES

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5 Claims. (Cl. 210-164)

This invention relates to nozzles for delivering gasoline from measuring pumps and relates especially to the means for coupling the nozzle to the delivery hose. The object of the invention is to provide a novel and efficient coupling whereby a strainer will be securely held within the coupling between the hose and the nozzle so that the gasoline delivered through the nozzle will be thoroughly cleaned and the coupling parts may be easily separated when it is desired to remove any possible accumulation. The invention is illustrated in the accompanying drawing and consists in certain novel features which will be hereinafter first fully described and then more particularly defined in the appended claims.

In the drawing:

Figure 1 is a longitudinal section through a coupling embodying the present invention.

Figure 2 is a section through the strainer removed from the coupling on the line 2-2 of Figure 1.

Figure 3 is a perspective view of the strainer and the supporting ring separated but in their proper relative positions.

Figure 4 is an enlarged detail section on the line 4-4 of Figure 3.

In the drawing, the reference numeral 1 indicates a coupling sleeve which is internally threaded at one end or otherwise constructed to be attached to the end of the hose or pipe leading from the measuring pump. This coupling sleeve is exteriorly enlarged at the end remote from the delivery pipe or hose, as shown at 2, and the bore of the sleeve is tapered or beveled, as shown at 3, whereby the liquid flowing through the sleeve will be confined between the wall of the sleeve and the side of the strainer 4 and will be unable to escape except through the strainer so that any foreign matter which may be in the gasoline will be positively caught and retained in the sleeve. The enlarged portion or flange 2 is externally threaded, as clearly shown in Figure 1, to be engaged in the coupling head 5 of a nipple 6 which is threaded or otherwise fitted into the end of the delivery nozzle. The formation of the coupling head presents an internal annular shoulder 7 upon which a washer 8 of fiber or other material which will form a tight packing, is placed.

The strainer is of tapered or conical formation, as clearly shown in Figures 2 and 3, and consists of two similar sections which have their side edges crimped together, as shown at 9, and held in the crimped engagement by a metal strip 10 which is doubled thereover, as clearly shown

in Figure 4. The end of the strainer is also formed by compressing the ends of the two sections so that they present a flat edge to the inflowing gasoline and these edges are held together by a clip 11 of metal compressed over the edges, as will be understood and as clearly shown. The side strips 10 are extended beyond the basal or open end of the strainer and thereby present terminal tongues which are adapted to pass through diametrically opposite openings 12 in the supporting ring 13 and then doubled upon themselves so as to engage the inner surface of the ring, as clearly shown in Figure 1. The basal end of the strainer encircles the ring 13 and extends preferably to the annular flange 14 on the ring. The flange 14 rests upon or against the washer 7 and a second washer or gasket 15 of fiber or rubber rests upon the flange 14, as clearly shown in Figures 1 and 2. When the parts of the strainer and the supporting ring have been assembled and connected, as shown and described, they are disposed within the coupling head against the washer or packing 8 and the coupling sleeve 1 is then engaged in the coupling head and turned home against the washer 15 so that the two washers and the flange 14 will be firmly clamped between the end of the coupling sleeve and the annular shoulder within the coupling head.

This coupling is very simple and easily manipulated and, when the parts are properly assembled, the strainer will be very firmly held in place and will be presented to the oncoming stream of gasoline so that the gasoline will be forced to pass through the strainer and be thoroughly cleansed of all minute impurities, it being noted that the strainer is formed of very fine mesh wire. Whenever renewal of the strainer is necessary the coupling sleeve may be very readily withdrawn from the coupling head so that the strainer and its supporting ring may be easily lifted therefrom. The terminal tongues of the strainer-clamping strips may then be readily straightened so as to be withdrawn through the openings in the supporting ring and its flange to permit removal of the broken strainer and the substitution of a new strainer. The supporting ring will fit closely within the open end of the strainer and the washer 15 will fit closely around the end of the strainer so that leakage of the gasoline around the end of the strainer instead of passing through it will be avoided.

Having thus described the invention, what is claimed as new is:

1. A device for the purpose set forth comprising a coupling sleeve having its bore reduced in

diameter at one end and being provided at said end with an annular enlargement, a coupling head engaged around the enlargement of the coupling sleeve and having an internal shoulder presented to the end of the sleeve, washers interposed between the end of the sleeve and said shoulder, a supporting ring having an annular flange fitted between the washers and provided with diametrically opposite openings, a tapered strainer consisting of longitudinal sections having their edges crimped together and their ends flattened, a clip compressed over the flattened ends of the strainer sections, securing strips clamped upon the crimped side edges of the strainer sections and extending beyond the larger end of the strainer, the extended ends of said strips passing through the openings in the supporting ring and extending inwardly to bear against the inner side of the ring and the washer resting upon the flange of said ring fitting closely around the end of the strainer, said washer, the annular flange on the supporting ring and the washer bearing against the shoulder of the coupling head being clamped by and between said shoulder and the end of the coupling sleeve.

2. A device for the purpose set forth comprising a coupling sleeve, a coupling head engaged around an end of the sleeve, a strainer, a supporting ring engaging one end of the strainer and provided with spaced openings, and holding strips on the sides of the strainer provided with terminal tongues extending through the openings in the ring and against the adjacent face of said ring.

3. A strainer comprising a supporting ring having oppositely disposed openings therein and provided with a base flange, a tapered strainer having its large end fitting over the supporting ring and resting on said flange, and securing elements carried by the strainer and engaging the openings in the ring.

4. A device of the class described comprising a tapered supporting ring having openings therein and provided with a base flange, a correspondingly tapered strainer fitting over the tapered supporting ring and formed of mating sections, securing elements uniting the mating edges of the strainer sections and having their lower ends projecting below the large end of the strainer and seating in the openings in the ring, and a securing clip engaging the strainer sections at the upper ends thereof and interposed between the securing elements.

5. A device of the class described comprising a frusto-conical supporting ring having oppositely disposed openings formed therein and provided with a laterally extending base flange, an upwardly tapered strainer fitting over the ring and resting on the base flange thereof, said strainer being formed of mating sections having their meeting longitudinal edges overlapped, and securing elements engaging the overlapped edges of the strainer and having their lower ends projecting below the large end of the strainer and extended through the openings in the ring and against the inner face of said ring.

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