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2,855,948

STRIP RETAINER FOR UNDERGROUND HYDRANT OR THE LIKE

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Fig. 1.

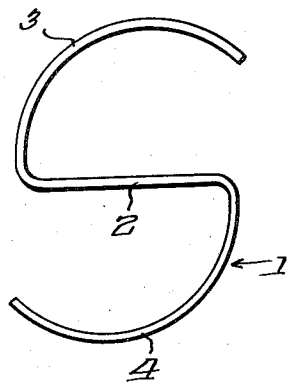


Fig. 2.

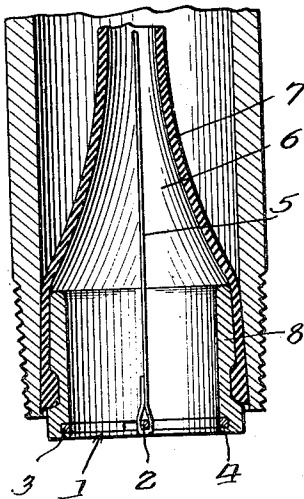
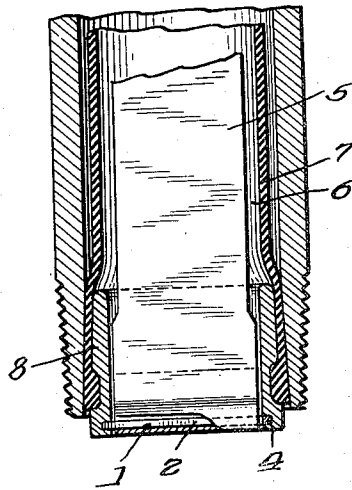


Fig. 3.



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STRIP RETAINER FOR UNDERGROUND HYDRANT OR THE LIKE

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2 Claims. (Cl. 137-301)

This invention relates to a sanitary underground and frostproof hydrant or the like, and, more particularly, it is concerned with a novel improved type of strip retainer for such kind of hydrant as hereinafter referred to more specifically.

At the outset, in order to obtain a better understanding and appreciation of the invention made by this contribution, it should be understood that the instant contribution is made in conjunction with a significant improvement made in sanitary water hydrants accomplished by the addition of an elongated plastic strip inserted inside a flexible rubber tube as shown and described in U. S. Patent No. 2,676,607, granted April 27, 1954, to avoid the dangers of freezing normally incident to the installation of hydrants in general.

A holding member has been required in this connection to maintain the plastic strip disclosed therein in position, and this member has had to be necessarily designed so that the fluid flow therethrough would not be adversely affected. It should be clear that in connection with underground hydrants used by the railroads for example in supplying fresh water to their railroad cars for sundry purposes, it is necessary of course that they be filled quickly in a sanitary manner while at the same time avoiding any adverse affect upon the normal flow rate through the device. A significant problem encountered is concerned with the said strip attachment within the tube of the hydrant disclosed in said patent.

One of the more important objects therefore of this invention is to provide for an attaching means whereby the installation of the strip can be made conveniently in the field and easily and quickly replaced when necessary.

Another object is to provide for the type of a narrow clip installation in which a novel snap ring of a comparatively simple configuration can be used for the strip attachment.

Another important object is to provide for a simple S-spring form engageable with a ferrule to effect a sturdy and economical structure.

Other objects and advantages will become more readily apparent upon proceeding with the specification read in light of the accompanying drawings, in which:

Fig. 1 is a plan view of a novel clip structure embodying our invention.

Fig. 2 is a fragmentary view showing the preferred form of mounting of the said clip.

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Fig. 3 is a transverse view taken at right angle sections described in connection with Fig. 2.

Similar reference numerals refer to similar parts throughout the several views.

Referring now to Fig. 1, the novel S-clip 1 is a wire member of resilient material and consists of a transverse extending cross-member portion 2 having at each end limit thereof curved portions 3 and 4 respectively formed to fit the interior groove of a passage such as that illustrated. The integral curved portions 3 and 4 are preferably made in such manner as to cooperate with the transverse section 2 so as to form therewith a letter S. The latter when flexed and sprung outwardly of the curved portions 3 and 4 serves to position the ferrule clip 1 in position securely within a groove such as that shown in connection with Figs. 2 and 3. Thus attached to the cross member 2, the elongated plastic or other suitable strip 5 is easily applied since it snugly engages the cross portion 2 thereof. It is clear that the strip 5 with respect to the through passage 6 of the intake of the rubber tube 7 divides the latter into a pair of passages initially, while the ferrule 8 serves as means for anchoring or positioning the ferrule clip in suitable accurate position with relation to the port 6. A very simple and relatively inexpensive form of attachment has thereby been provided which lends considerable utility and convenience to the assembled structure.

Obviously, the general form of the clip may be changed substantially and therefore it is our desire to be limited by the terms of the appended claims interpreted in light of the art.

We claim:

1. In a sanitary water hydrant or the like comprising a lower depending hollow cylindrical portion with an inner end portion thereof provided with an annular groove, a clip member therefor of the character described fitted within the groove and comprising a wire member of resilient material substantially of letter S configuration with a connecting transversely extending cross-member portion, the said clip member having a substantial space between opposite end portions thereof and the said cross-member portion to permit predetermined flexure of the clip member when being fitted within the groove, the said S-configuration providing for the said connecting transversely extending cross-member portion to be interposed between oppositely disposed relieved portions of the annular groove thereby to span said cylindrical portion and to permit attachment thereto of a flexible strip extending within the said hollow cylindrical portion.

2. The subject matter of claim 1, the said inner end portion of the hollow cylindrical portion including a ferrule member, the latter member being formed at an end portion thereof to receive said clip member.

References Cited in the file of this patent

UNITED STATES PATENTS

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