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Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

Fig. 6

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This invention relates to new and useful improvements in means for protecting and assisting in locating of fire hydrants. An object of the invention is to provide in association with a fire hydrant a reflector means which may be easily applied to a hydrant and which when in place thereon will serve to reflect light as from the headlights of an approaching automobile whereby the hydrant may be easily located by a driver of fire apparatus and whereby there is less likelihood of a driver parking a car closely adjacent to the fire hydrant.

Another object is to provide an improved construction and mounting of glass lenses.

Advantages will become apparent from a consideration of the following detailed description taken in connection with the accompanying drawing wherein a satisfactory embodiment of the invention is shown. However, it is to be understood that the invention is not limited to the details disclosed but includes all such variations and modifications as fall within the spirit of the invention and the scope of the appended claims.

In the drawing:

Fig. 1 is a side elevational view showing one type of fire hydrant equipped in accordance with the invention;

Fig. 2 is a similar view showing a slight modification of fire hydrant;

Fig. 3 is an enlarged view taken along the line 3-3 at Fig. 1 and showing a hydrant body in section and the reflector means in plan;

Fig. 4 is an enlarged plan view showing the connection employed.

Fig. 5 is an elevational view of said connection showing the same sealed; and

Fig. 6 is an enlarged sectional view through one of the reflecting means employed.

Referring in detail to the drawing in Fig. 1, at 10, is shown a fire hydrant including a body 11, radial outlets 12 and a dome or pressure head 13, of enlarged diameter. About the body 11, above the outlets 12, and below the pressure head 13, is a split flexible metal band 14, carrying glass lenses 15. Fig. 2 shows a somewhat similar arrangement but the fire hydrant designated 16 is of a slightly different type including a body 17 and pressure head 18 of enlarged diameter, spaced somewhat above the radial outlets 19. About the hydrant, below the head 18, and above the outlets 19, is a split flexible metal band 20 carrying glass lenses 21.

As here shown, the band 20 is slightly cut away at 22 to clear the protruding outlet portion 18.

Fig. 3 discloses the manner in which band 14 encircles the hydrant body 11 and it will be noted that the glass lenses 15 are secured to the band 14 by drawn metal cups 23. The ends of the band extend outwardly as shown at 24 and 25 and then bolts 26 are passed through such portions 24 and 25 and secured as by nuts 27. Obviously on tightening of the nuts on the bolts the portions 24 and 25 are drawn towards one another tightening the band about the hydrant body so as to secure it in place. During this time the outer ends 28 and 29 of the band occupy the dotted line positions of Fig. 4. After the band is clamped against the body of the hydrant, any portions of the bolts projecting beyond the nuts are broken off leaving the ends of the bolts flush with the outer surfaces of the nuts as in Fig. 4. Thereafter the portions 28 and 29 are bent to the full line positions of Fig. 4 following which by means of a pair of pliers or the like the upper and lower edges of the portions 28 and 29 are brought in toward one another as shown at 30 in Fig. 5. Thus the nuts and bolt connections between the ends of the split rings are not only concealed but the connection between the ends of the band may be described as a seal. With the proper tools, a workman may bend out the extreme end portions of the band to again gain access to the nuts and bolts for the purpose of removing the reflector from the hydrant. However, the nuts and bolts being concealed as the end portions of the band are sealed about them, tampering with the band for the purpose of unauthorized removal is discouraged.

The glass lenses, whether 15 or 21, are secured to the mounting bands in the same manner; that is, by the drawn metal cups 23. Each lens 15 is a double convex lens having a portion 31 of 40 enlarged diameter intermediate its convex surfaces whereby outer and inner annular shoulders 32 and 33 are provided.

Each cup 23 at its outer end includes an inverted flange 34 and at its inner end is provided with spaced lugs 35. The band 14 is provided with openings 36 spaced as are the lugs 35 whereby such lugs may be passed through the band and clinched at the inner side thereof as in Fig. 6. In the assembly the flange 34 of the cup engages the outer shoulder 32 of the lens while against the inner lens shoulder 33 there is disposed a sealing gasket of Vellumoid or similar material. Engaging the inner side of the sealing gasket 37 is a reflector 38. Such re-
lector is concave as shown and on its inner surface is silver-plated and highly polished and is fixed in focus with the lens with which it is associated. With this construction the reflector units comprising the lenses and the reflectors 38 have a very high reflective power.

The inner or closed end of the reflector 38 is against the band 14 and it will be understood that with the sealing gasket between the outer edge of the reflector and the shoulder 33 that as the lugs 35 are turned over at the inner side of the band the flange 34 of the cup draws inwardly against shoulder 32 of the lens causing the lens to press against the gasket 37 whereby a watertight seal is provided.

The band 14 (and also band 20) is preferably of aluminum or other soft, flexible and non-corrosive metal whereby it will have a bright surface and whereby the band may be easily bent about the body of the hydrant to take the shape of such body and tightly embrace the same. With the construction shown it will be apparent that the bolts 26 being removed the band may be partly opened and then moved laterally into place as the body of the hydrant between radially extending outlet connections 12 and the enlarged head 13.

Now the band being flexible its ends are drawn toward one another and the nuts and bolts applied after which the ends are bent to provide a seal about such nuts and bolts as above explained.

The cups 23 are preferably also drawn up of aluminum so as to have a bright surface and such cups and the reflectors 39 in any instance are of non-corrosive metal. In order that the band may be bent about the body of the hydrant, the lower edges of the cups are slightly concave as shown at 39 in Fig. 6.

The bands being located above the radially protruding hydrant outlets 12, it will be apparent that should the band not tightly embrace the hydrant body, the band will necessarily be prevented from slipping down to the bottom thereof where the band might be concealed by grass, or the like, growing adjacent to the hydrant. It is also noted that the band being below the portion of the hydrant of enlarged diameter such as in the drawing is represented by the pressure heads the band may not casually be lifted off the hydrant. Since the band is a split band it may easily be applied or removed by partly opening it and moving it laterally into position between the hydrant portions of greater diameter as between the pressure heads on the drawing and the radially projecting outlet portions.

Attention is also directed to the fact that the lugs 35 being clinched at the inner side of the band are inaccessible while the band is on the hydrant so that the arrangement prevents children from removing the lenses. However, the authorized party removing a complete band from a hydrant may readily pry up such lugs in order to gain access to the interior of the cup 23 for the purpose of replacing the broken lens.

Having thus set forth the nature of our invention, what we claim is:

1. In combination with a fire hydrant comprising a body including radially protruding outlets intermediate its upper and lower ends and a portion of enlarged diameter spaced above said outlets, a metal band, light reflector units, means securing said reflector units to the band to reflect back light directed toward the band, said band having cutouts in its lower edge conforming to the shape of and receiving the upper portions of said radially protruding outlets whereby to assist in locating the band about the hydrant and guiding the radially protruding movement of the band on the hydrant.

2. In combination with a fire hydrant including vertically spaced portions of enlarged diameter located toward the upper end of the hydrant, a flexible split metal band about the hydrant portion between said portions of enlarged diameter, light reflecting units carried by said band, means drawing and securing together the ends of the band and clamping it about said hydrant portion to circularly position the band and to prevent sliding movement of the band past said portions of enlarged diameter, means forming a seal about said securing and drawing means to prevent casual loosening thereof and to discourage tampering therewith, and said band of a width having a snug fit between said portions of enlarged diameter whereby the upper portion prevents the insertion of a pry between the band and hydrant.

3. In a light reflecting device, a perforated band of flexible metal adapted to be bent about a circular object, light reflecting units, ring-like mounting means receiving the inner ends of said units and including portions passing through said perforations, flat radially extending portions on the inner ends of said portions of the mounting means and disposed against the inner side of the band, said band having its end portions extending radially outwardly of the major band portion and arranged in substantially abutting relation and perforated, a threaded bolt passing through said perforations, a nut on said bolt and securing said perforated band portions in said substantially abutting relation whereby to effect circular securement of the band about and in engagement with said circular object to prevent casual removal of the band over the ends of the object and to conceal and clamp said flat radially extending portions of the ring-like mounting means against the object and the inner side of the band, said band end portions beyond said perforations bent back upon themselves over said nut and the head of said bolt, covering and concealing the same to discourage tampering therewith, and said bent band ends adapted to be opened to permit of access to the nut and bolt for authorized removal of the band from the object to gain access to said flat radially extending portions on the inner ends of the ring-like mounting means for the purpose of removing one of said mounting means to replace a damaged unit.

4. In combination with a fire hydrant including a portion of enlarged diameter and a plurality of radially extending cylindrical water outlets spaced about said hydrant below said portion of enlarged diameter, said outlets having their apexes of curvature substantially in the same plane, a split metallic band, light reflecting units carried by said band, means circularly positioning said band about said hydrant in horizontally supported engagement with the apexes of said outlets whereby the reflectors are supported in the proper focal plane for reflecting back light rays from the heads of said bolts and securing the ends of the band together to
form the same into a diameter less than that of said portion of enlarged diameter to prevent removal of the band over the upper end of the hydrant and of a diameter too small to permit of malicious pushing of the band downwardly over said outlets out of the focal path of said approaching traffic, said last means comprising outwardly directed band end portions disposed in substantially parallel abutting relation and each having a perforation, a threaded bolt passing through the perforations in the end portions of the band, a nut threaded on said bolt, said band end portions beyond said nut and bolt bent back upon themselves over said nut and the head of said bolt respectively and covering and concealing the same to discourage tampering therewith, and said bent band ends adapted to be opened to permit of access to said nut and bolt for authorized removal of the band from the object.

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