Sept. 23, 1941. F. H. RILE 2,256,626

ROOF SUMP

Filed June 27, 1940

Fig. 1.

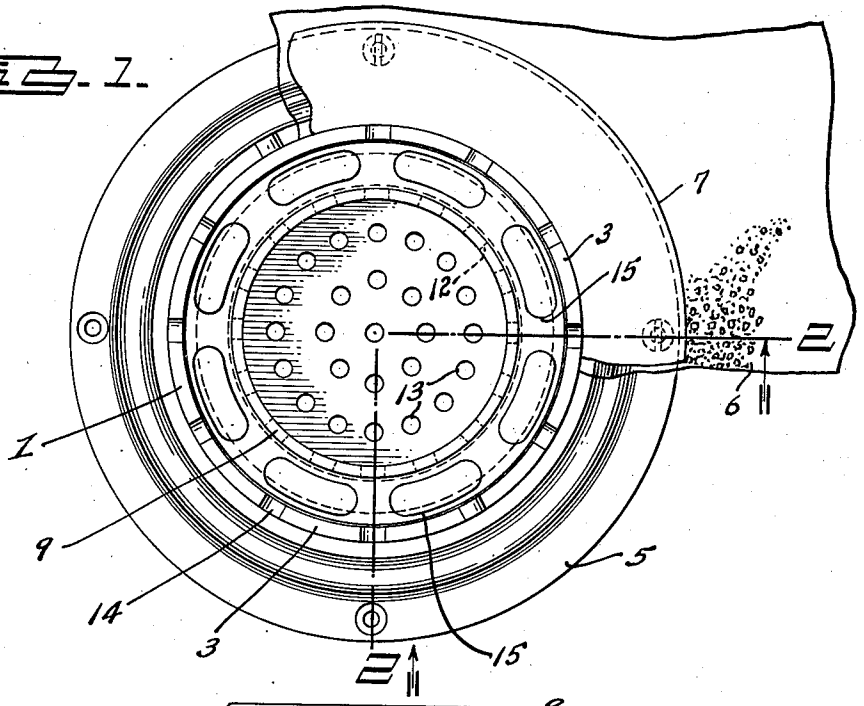
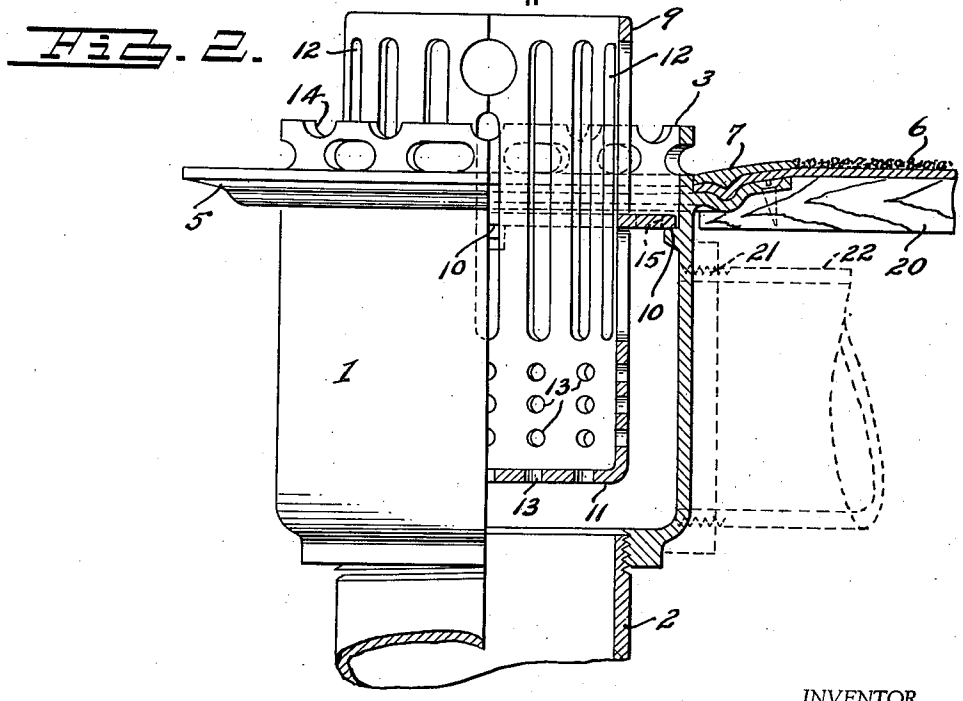


Fig. 2.



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ROOF SUMP

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4 Claims. (Cl. 182—31)

This invention relates to roof sumps, the object being to provide a new and improved form of sump comprising a body having a peripheral flange to which the roofing is secured and having a series of comparatively large apertures above the same and a removable basket having apertured side walls adapted to separate foreign matter from the water flowing into the sump and supported in spaced relation with the side walls of the body to permit the material of larger sizes to pass directly to the outlet at the bottom of the body, the basket being unattached to the body to permit removal therefrom and ready replacement thereof.

These and other objects and novel features of the invention are hereinafter more fully described and claimed and shown in the preferred form in the accompanying drawing in which—

Fig. 1 is a plan view of a sump.

Fig. 2 is an elevation, partly in section, showing the features of construction.

Heretofore roof drains or sumps have been made with a body and a hollow member having apertures in the side walls having open end downward and usually bolted or otherwise secured in place and not subject to ready removal.

In my improved form of roof sump I provide a hollow body 1, the lower end (preferably the bottom) of which is provided with a threaded aperture to receive the threaded end of a waste conduit 2. The upper end 3 of the body is open and is provided with a series of comparatively large apertures 4 extending in peripherally spaced relation thereabout and above the flange 5 which receives the roofing 6. A ring plate 7 is secured on the upper side of the roofing element to seal the roofing to the sump body as is the usual practice. Within the body of the sump adjacent the upper end are a number of peripherally spaced lugs 8 and the basket 9 has an outer peripheral flange 10 supported by gravity on the lugs 8 of the body. This arrangement of lugs and flange avoids necessity of providing a fastening means requiring detachments to permit removal of the basket or manipulation of such parts in placing the basket in the body. The upper end of the basket 9 is open and extends above the upper open end 3 of the body and the bottom 11 of the basket terminates above the bottom of the body and inlet end of the conduit 2. Preferably the basket has a series of vertical slots 12—12 therein extending from near the upper open end to a point above the bottom 11 of the basket and the basket is provided below the lower end of the slots with a series of apertures 13—13 and the bottom wall 11 has similar apertures. The upper edge of the body may also be formed of notches 14 opening through the upper edge.

The roof may be formed of wood, as indicated at 20 in Fig. 2, or may be of concrete and in any form of roof structure the flange 5 of the body functions to receive the roof covering. It is also pointed out that the outlet conduit may extend from the side of the body rather than from the bottom by the provision of a hub 21 on the side thereof to receive a lateral conduit 22 both shown by dotted lines in Fig. 2.

With the device installed in the roof as stated any foreign material of comparatively large size, less than that of the apertures 4, may pass directly into the body and through the periphery elongated apertures 15 in the flange 10 of the basket and thence pass directly to the outlet 2. The lighter material such as straw, dirt, fibrous material and the like tending to float on the surface of the water flowing to the sump, may pass directly into the basket through the slots or into the upper end which permits papers and other floating material of large size to enter the basket. This prevents clogging of the sump. With this arrangement material larger than the size of the apertures 13 will accumulate and when the basket becomes clogged it may be readily removed, the material dumped therefrom and the basket repositioned in the body without necessity of fastening or unfastening of parts for securing the same in place.

It will be observed from the foregoing that the structure is of extremely simple form comprising two separable parts functioning as hereinbefore described and is thus of less expense in manufacture and in erection in place as it is only required to position the flange on the roof in position to receive the roofing and the securing of the outlet conduit thereto. Upon positioning the basket within the body the installation is completed.

It is to be understood that the invention is not restricted to specific forms of the parts as here shown and that various changes may be made without departing from the spirit and scope of the invention as set forth in the appended claims.

Having thus fully described my invention, its utility and mode of operation, what I claim and desire to secure by Letters Patent of the United States is:

1. A roof sump comprising a hollow body having an open upper end adapted for attachment at its lower end to a waste conduit, an external flange below the upper end of the body for securing the same to a roof and to receive the roof

covering, the end of the body above the flange having openings, a basket having a bottom, an open upper end, and a peripheral apertured flange therebelow, the basket being of less diameter than the inner diameter of the body and having apertures in its wall above the basket flange through which waste material may flow with the water and small apertures below the flange for separating the waste material from the water therefrom, and lugs projecting interiorly of the body on which the peripheral flange of the basket is supported.

2. A roof sump comprising a hollow body having an open upper end and adapted for attachment at its lower end to a waste conduit, an external peripheral flange below the upper end of the body for securing the same to a roof and to receive a roof covering in sealed relation therewith, a basket within the body having a bottom, an open end extending to above the upper end of the body, and a peripheral flange therebelow, the basket being supported in spaced relation with the body by the flange, the said basket having a series of vertical slots in the upper portion of the wall thereof and a series of comparatively small apertures in the wall thereof below the slots and in the bottom, said apertures providing a means for retaining debris within the basket and permitting flow of water therefrom, and means within the body providing a support for the basket flange and permitting the free removal of the basket.

3. A roof sump comprising outer and inner separable parts of cylindrical form, both said parts having open upper ends, the outer part having a peripheral flange below its top for the support of the same on a roof and adapted to receive a roof covering in sealed relation therewith, the bottom of said outer part having an opening to receive a waste conduit, said inner part having the open upper end thereof extending a distance above the open upper end of the body, and the side walls and bottom of said inner part having apertures, lugs extending inwardly of the body below its top, and means on the exterior of the basket by which it is supported on the lugs by gravity and freely removable from within the body.

4. A roof sump comprising inner and outer separable parts of hollow cylindrical form, both the parts having open upper ends, the outer part having a peripheral flange below its top for support of the same on a roof and adapted to receive a roof covering in sealed relation therewith, the said outer part having an opening to receive a waste conduit, the said inner part having the upper end thereof extending a distance above the upper end of the outer part, the side walls and bottom of the said inner part having apertures, and the upper end of the outer part above the peripheral flange having comparatively large apertures to permit foreign matter of considerable size to pass into the sump between the said inner and outer parts, and means on the body for supporting the basket by gravity therewithin with the bottom of the inner part above the bottom of the outer part.

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