Jan. 4, 1949. J. W. SWENSON 2,457,940

GUTTER LEADER UNIT

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Fig. 1

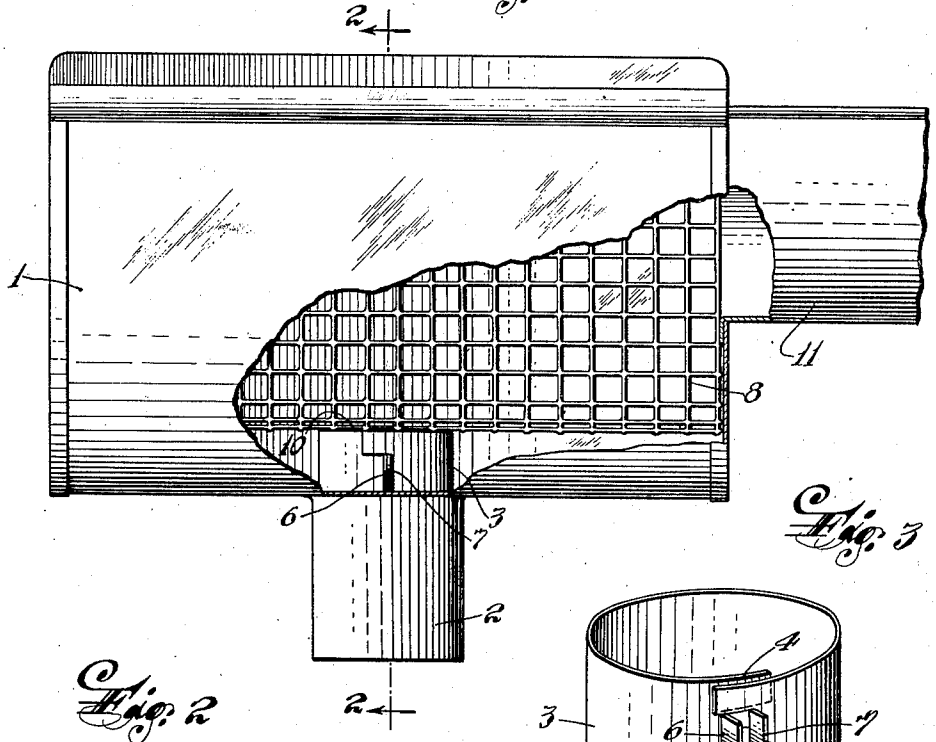
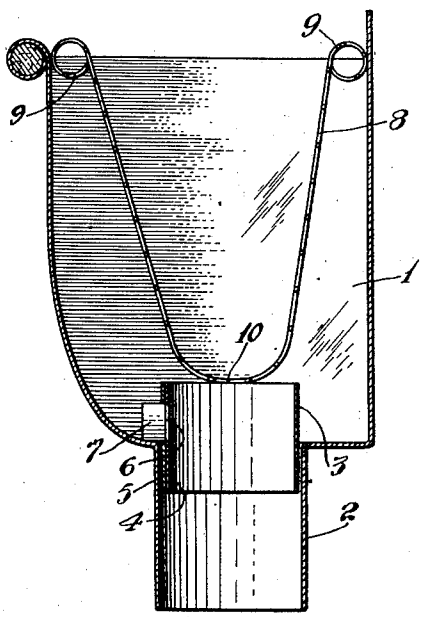


Fig. 2

Fig. 3



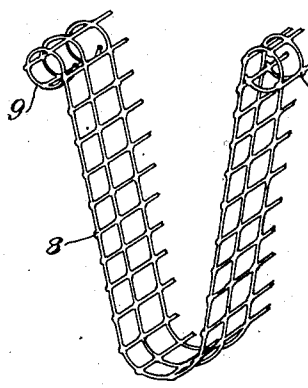


Fig. 4

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GUTTER LEADER UNIT

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4 Claims. (Cl. 108—28)

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This invention relates to a gutter leader unit which is adapted to be connected between a gutter and lead pipe.

It is one of the objects of my invention to provide a leader which will prevent leaves and other coarse matter from flowing from the gutter into the lead pipe and while obtaining the principal object of my invention, it is a further object to provide a gutter leader which will allow fine particles to pass through the leader without clogging it or the lead pipe.

A further object of my invention is to provide a leader construction which will pick up and hold a large quantity of leaves or equivalent water clogging matter without being put out of commission.

Another object of my invention is to provide a leader construction in which the sieve or strainer part may be quickly and easily removed and cleaned.

A further object of my invention is to provide a construction in which anti-freeze materials may be placed in the bottom of the leader so it will not freeze up any mixture of water and clog the leader or leader pipe. These and other objects will be observed from a reading of the following specification taken in connection with the annexed drawing wherein,

Figure 1 is a side view of the leader unit, a part being broken away to show the interior construction.

Figure 2 is a view on the line 2—2 of Figure 1.

Figure 3 is a perspective view of the sleeve positioned in the drain pipe or nozzle of the unit.

Figure 4 is a perspective view of one end of the strainer.

In the various views wherein like numbers refer to corresponding parts, 1 is a chamber formed from suitable metal to which reference will be later made. The chamber 1 has a drain pipe 2 leading from the longitudinal center part of the chamber. Positioned in the drain pipe 2 is a sleeve 3 formed with overlapping edges 4 and 5. The edge 4 has a lug 6 formed outwardly thereon while the edge 5 has a lug 7 similarly formed. The sleeve 3 is made of resilient material so that when it is out of the drain pipe 2, the lugs 6 and 7 are separated as shown in Figure 3 but when the sleeve 3 is inserted into the pipe 2 the lugs 6 and 7 are pushed together and jointly form a stop for positioning the sleeve 3 in the drain pipe or nozzle 2. As shown in Figure 2 the sleeve 3 extends a substantial distance above the bottom of the chamber 1. Furthermore, the

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sleeve 3 is designed so as to fit rather loosely in the nozzle 2, the drawing being made to indicate the loose fit, the object of which will be directly explained. The strainer 8 is formed somewhat U-shaped with the arms of the U rolled over at 9 to engage the upper edges of the chamber 1 thereby positioning the strainer 8 within the chamber. Furthermore, the bottom of the strainer 8 rests on the edge of the sleeve 3 over the opposite peripheral portion of the sleeve.

In the operation of this leader unit the leaves and the like which are brought into the leader from the gutter 11, only one being shown as coming in at one end of the unit, are caught by the strainer 8 and as they pile up within the strainer the water will find its way out of the strainer down through the bottom of the chamber 1 and when the volume of water is relatively low, this water and some of the fine particles that may be in it find their way past the sleeve 3 into the drain pipe 2 but large quantities of water coming into the leader will pass over the top of the sleeve 3 and into the drain 2. I prefer to use a strainer 8 of the type shown although the construction may be varied considerably. It may be noted that the strainer extends substantially the full length of the interior of the chamber. Such a strainer as shown will pass all water coming into it without overflowing. When it is desired to clean the strainer the turned over or rolled edges 9 may be readily grasped and the strainer withdrawn from the chamber 1 for cleaning purposes For some localities where water might freeze in the bottom of the chamber, within the space below the top of the sleeve 3, I utilize this space to place therein a considerable quantity of rock salt or other anti-freezing material in solid form. When this space is used for the purpose of preventing freezing, the leader may be made of material such as brass, stainless steel or monel metal, to prevent any chemical reaction, otherwise the chamber and its drain pipe 2 and sleeve 3 may be made of copper. While I prefer to roll over the upper edges of the arms of the strainer 8, this is not necessary as these edges may be bent over to a certain degree, for example, one-half of a circle. Other minor changes may be made without departing from the spirit of my invention or the scope of the appended claims.

Having thus described my invention,

What I claim is:

1. A gutter leader comprising a relatively deep chamber formed from suitable material and adapted to have a gutter enter an end of the chamber above the bottom thereof, a drain nozzle

leading out of the bottom of the chamber, an expansible sleeve loosely fitting within the drain nozzle and projecting above the bottom of the chamber with means for determining the amount of projection, the sleeve fit being such as to pass water along the exterior surface of the sleeve into said nozzle, a strainer having a sectional view somewhat like a U and extending the length of the chamber with the bottom of the U positioned near the top of said sleeve with the arms of the U extending to lines near the top of the chamber.

2. A gutter leader comprising a relatively deep chamber formed from suitable material and adapted to have a gutter enter an end of the chamber above the bottom thereof, a drain nozzle leading out of the bottom of the chamber, a split sleeve extending upwardly from the nozzle and having overlapping edges with cooperative lugs formed in the edges to act as stop positioning means for the sleeve in the drain nozzle, a strainer having a sectional view somewhat like a U and extending the length of the chamber with the bottom of the U positioned near the top of said sleeve with the arms of the U extending to lines near the top of the chamber.

3. A gutter leader unit comprising a relatively deep chamber formed from suitable material and adapted to have a gutter enter an end of the chamber above the bottom thereof, a drain nozzle leading out of the bottom of the chamber, a sleeve slidably located in the nozzle with one end projecting above the bottom of the chamber with means for determining the amount of projection, there being at least a passageway for water between the walls of the sleeve and nozzle, a U-shaped strainer fitting within the chamber and extending substantially the full interior length of the chamber with its bottom preferably resting on the upper end of said sleeve and the arms of the U extending to lines near the top of the chamber.

4. A gutter leader unit comprising a relatively deep chamber formed from suitable material and adapted to have a gutter enter at least one end of the chamber, a drain nozzle leading out of the bottom of the chamber, an expansible sleeve positioned in said drain nozzle and projecting a substantial distance above the bottom of the chamber, said sleeve contacting with the inside surface of the drain nozzle at intervals only whereby water may pass from the bottom of the chamber down through the drain nozzle and a substantially U-shaped strainer extending over the length and width of the chamber and supported above the expansible sleeve.

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