June 2, 1953 H. C. KORB 2,640,593

DOWN SPOUT STRAINER

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Fig. 2

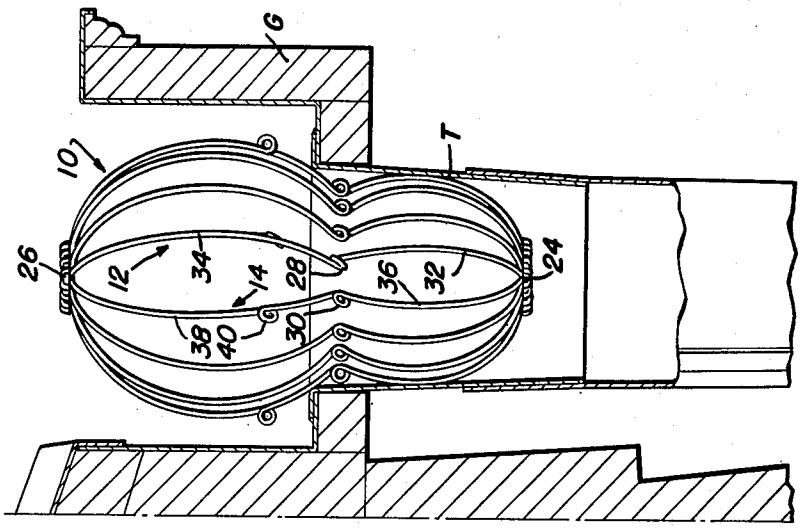
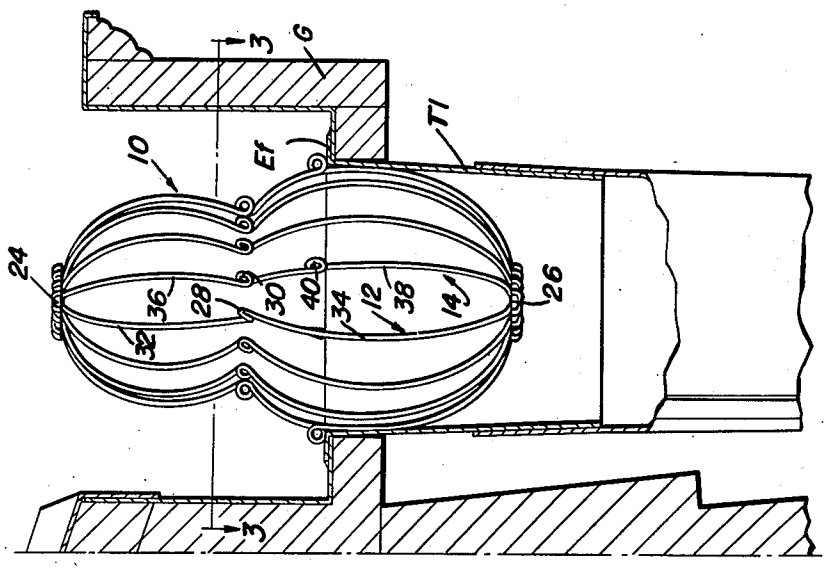


Fig. 1



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Fig. 3

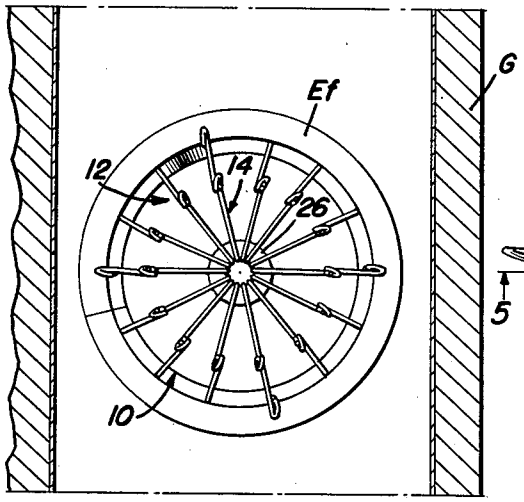


Fig. 4

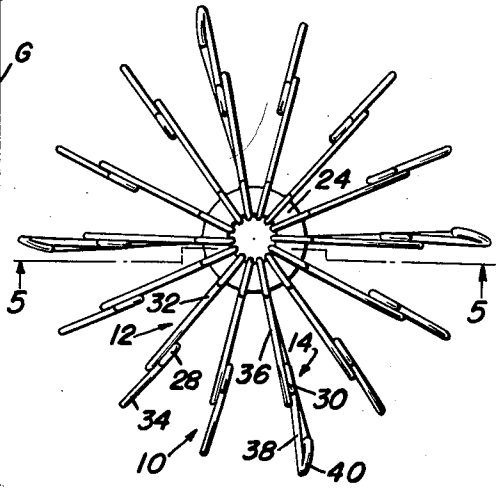


Fig. 5

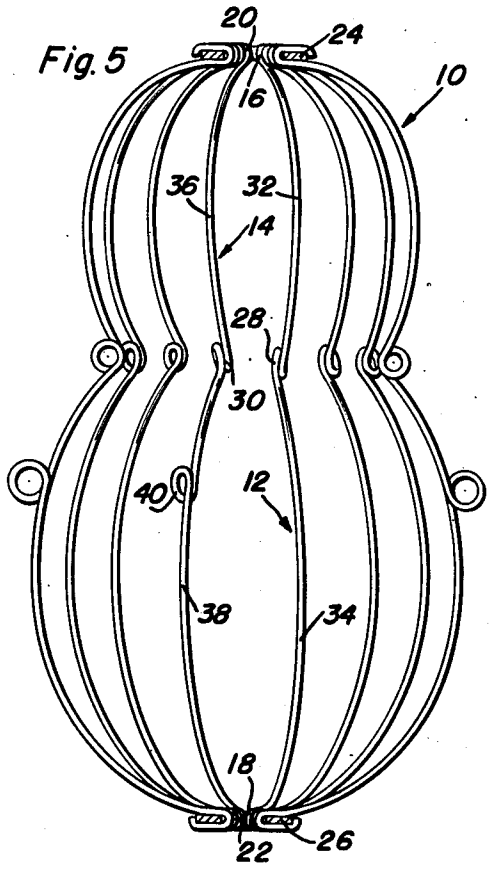
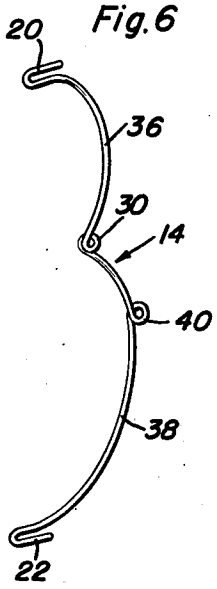


Fig. 6



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DOWNSPOUT STRAINER

Henry C. Korb, Cincinnati, Ohio

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4 Claims. (Cl. 210—88)

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This invention relates to new and useful improvements in straining devices and the primary object of the present invention is to provide a strainer that is adapted to be inserted into drain tubes to restrict leaves and such debris from entering drain tubes to clog the same.

Another important object of the present invention is to provide a down spout strainer composed of a plurality of undulated wire members joined together at their ends with shoulder-forming coils provided intermediate the ends of certain members for engaging the flanged end of a drain tube.

A further object of the present invention is to provide a down spout strainer in the form of a resilient wire frame having rounded end portions, one of which is slightly larger than the other, said end portions adapted to selectively enter a drain tube.

A still further aim of the present invention is to provide a down spout strainer of the aforementioned character that is composed of parts that are quickly and readily assembled or disassembled in a convenient manner, to reduce to a minimum the production cost of the strainer.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a vertical sectional view of a gutter and drain tube structure and showing the larger end portion of the present invention installed in the tube;

Figure 2 is a view similar to Figure 1 but showing the strainer inverted with its smaller end portion positioned in the tube;

Figure 3 is a horizontal sectional view taken substantially on the plane of section line 3—3 of Figure 1;

Figure 4 is an end view of the present invention;

Figure 5 is a longitudinal sectional view taken substantially on the plane of section line 5—5 of Figure 4; and

Figure 6 is a perspective view of one of the wire members used in the present invention.

Referring now to the drawings in detail, wherein for the purpose of illustration, there is disclosed a preferred embodiment of the present invention, the numeral 10 represents a strainer that is composed of a plurality of wire lengths or members 12 and 14. The ends of the members 12 are bent to form hooks 16 and 18, and the

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ends of the members 14 are also bent to form hooks 20 and 22.

An upper washer 24 is engaged in the hooks 16 and 20, and a lower washer 26 is engaged in the hooks 18 and 22, whereby the wire members will be joined at their ends to form the strainer 10.

Each of the wire members 12 and 14 are bent intermediate their ends to form coils 28 and 30 respectively, that urge the hooks 16, 20, and 18, 22 radially outwardly against the washers. The end portions 32 and 34 of the wire members 12 are smoothly curved or arcuated with the end portions 34 curved along greater arcs than the end portions 32. The coils 30 are provided at the junctures of the end portions 32 and 34.

The end portions 36 and 38 are also smoothly curved or arcuately formed with the end portions 38 curved along greater arcs than the end portions 36. The arcs 36 are similar to the arcs 32 whereas the arcs 38 are similar to the arcs 34.

The wire lengths 14 are initially longer than the wire lengths 12 so that the end portions 38 may be bent to form coils or loops 40 that are disposed adjacent the coils 30 after which the members 12 and 14 will be equal in length.

In practical use of the invention, the reduced rounded end portion of the strainer 10 including the end portions 32 and 36 of the wire members 12 and 14, is inserted into the drain tube T with the end portions 34 and 38 engaging the upper end of the tube T as shown in Figure 2, and with the enlarged end portion of the strainer 10, including the end portions 34 and 38 of the wire members 12 and 14, located within a gutter G from whence the tube T depends.

When the strainer 10 is employed with a relatively large drain tube T1, the enlarged end portion of the strainer 10 is inserted in the tube T1 with the shoulder-forming coils 40 resting against the flanged end E*f* of the tube T1, and with the reduced rounded end portion of the strainer 10 located within the gutter G.

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

1. A down spout strainer comprising a plurality of wire lengths, said wire lengths including upper and lower terminal hooks, an upper washer joining the upper hooks, a lower washer joining the lower hooks, and each of said wire lengths being bent intermediate its ends to provide coils urging said upper and lower hooks against said upper and lower washers.

2. The combination of claim 1 wherein said

wire lengths include upper and lower smoothly curved end portions.

3. A down spout strainer comprising a plurality of wire lengths, said wire lengths including upper and lower terminal hooks, an upper washer joining the upper hooks, a lower washer joining the lower hooks, and each of said wire lengths being bent intermediate its ends to provide coils urging said upper and lower hooks against said upper and lower washers, said wire lengths having upper and lower smoothly curved end portions, certain of said wire lengths having additional coils adjacent said first named coils forming shoulders for engaging the bottom wall of a gutter.

4. A down spout strainer comprising a plurality of undulated wire members each including first and second U-shaped portions, said portions having inner and outer ends, a coil joining the inner ends of each portion together, a hook at the outer end of each portion, a first washer joining the hooks at the outer ends of said first portions, a

second washer joining the hooks at the outer ends of said second portions, said first portions being curved on a greater arc than said second portions, and additional coils provided in certain of said first portions forming shoulders for engaging the flanged end of a drain tube when the first portions are inserted in the tube.

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