L. THIEM.

CATCH STRAINER FOR DOWN SPOUTS.

APPLICATION FILED FEB. 10, 1912.

1,044,601. Patented Nov. 19, 1912.

Fig. 1.

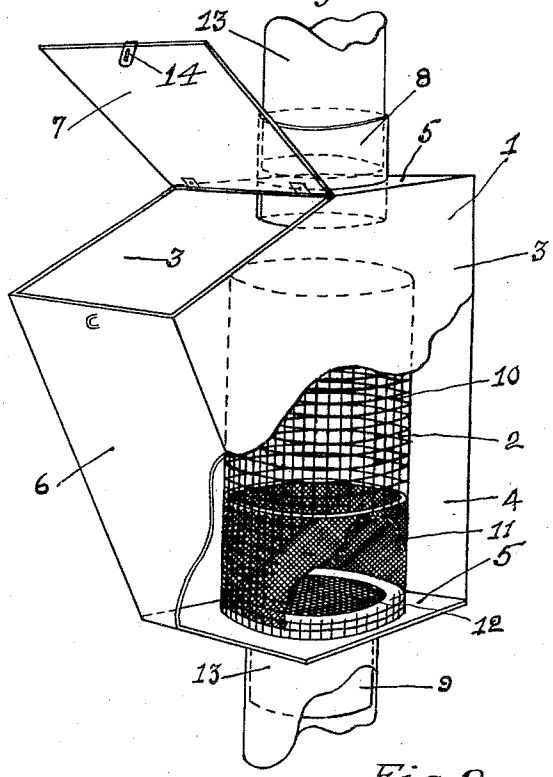
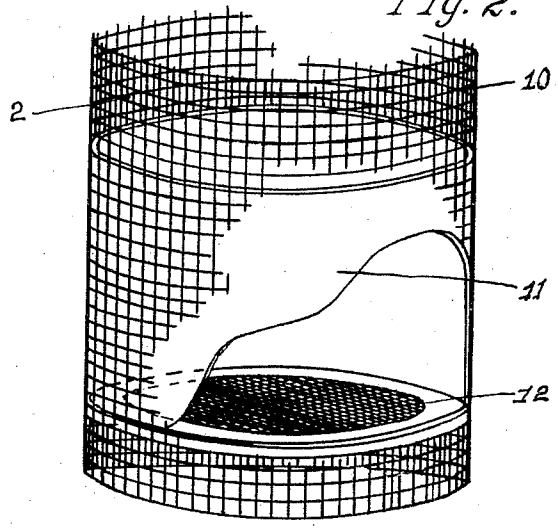


Fig. 2.



WITNESSES

C. H. Wilson.

M. L. Smith

INVENTOR

Louis Thiem

by Robt. B. Wilson

Attorney

UNITED STATES PATENT OFFICE.

LOUIS THIEM, OF TOLEDO, OHIO.

CATCH-STRAINER FOR DOWN-SPOUTS.

1,044,601. Specification of Letters Patent. Patented Nov. 19, 1912.

Application filed February 10, 1912. Serial No. 676,908.

To all whom it may concern:

Be it known that I, LOUIS THIEM, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented new and useful Improvements in Catch-Strainers for Down-Spouts, of which the following is a specification.

My invention relates to a catch strainer for down spouts, and has for its object to provide down spouts leading from the eave troughs of a building to a cistern, with a catch strainer, adapted to retain leaves or other light debris washed from the roof and eave troughs and prevent the same from being carried into the cistern, without being obstructive to the flow of water, and that is conveniently removable for emptying the debris therefrom. I accomplish these objects by the construction and combination of parts as hereinafter described and illustrated in the drawings, in which—

Figure 1 is a view in perspective of a catch strainer constructed in accordance with my invention, in which portions of the outer casing are broken away to show the catch strainer within, which is also shown broken through opposite to the bottom strainer cup, and Fig. 2 is an enlarged view of the catch strainer removed from the casing, the top portion being broken away and the lower portion being broken through opposite a modified form of bottom strainer cup, which is also broken through to show the strainer bottom of the cup.

In the drawings 1 designates a casing in which is inserted the cylindrical catch strainer 2.

The casing 1 is an elongated box having the parallel pentagonal sides 3—3, the side 4 at right angles to the sides 3—3, the parallel top and bottom ends 5—5 at right angles to the sides 3—3 and 4, the side 6 connecting the sides 3—3 at an obtuse angle to the bottom end 5, and the lid 7 hinged to the top end 5, and adapted to complete the closure of the box, when resting on the top edges of the sides 3—3 and the side 6 at an obtuse angle to the top end 5.

The top end 5 is provided centrally with a short inlet pipe section 8 which extends partly within the casing 1 and partly above the casing, and the bottom end 5 in line with the section 8 is provided with an outlet pipe section 9 of slightly less diameter than the section 8.

The strainer 2 comprises a cylindrical strainer 10 formed of coarse meshed wire, open at the ends and of a length when mounted on the bottom end 5 of the casing to extend to within a short distance of the inner end of the pipe section 8 and of a diameter greater than the pipe sections 8 and 9, and the cup 11 preferably formed of wire strainer cloth of fine mesh, and telescopically fitted into the lower end of the cylindrical strainer 10 and secured thereto a suitable distance above the end to permit free flow of water from outside the strainer 10 through the strainer 10 into the lower pipe section 9. The bottom 12 of the strainer 11 is also formed of fine meshed strainer cloth. The wall of the cup, however, instead of being formed of strainer cloth, as shown in Fig. 1, may be of sheet metal as shown in Fig. 2. Thus constructed the casing 1 is connected into the down spout 13 as a section thereof, by telescoping the section 8 over the lower end of a section next above, and the section 9 into the upper end of the section of the down spout next below. Thus connected, the strainer 2 is inserted into the casing with the end containing the strainer cup 11 resting on the bottom end 5 concentrically above the pipe section 9, and the lid 7 closed and secured by the hasp 14. In this position any debris that is washed down from the eaves and roof falls into the strainer 2 and is retained thereby, while the water flows freely out of the strainer cylinder 10, and below the cup 11 into the section 9, as well as through the cup, the finer mesh of which is adapted to retain the finer particles of the leaves.

By opening the lid 7 and tilting the top of the strainer 2 toward the side 6, it may be lifted from the casing as often as need be, and the debris collected therein may be emptied therefrom, and the strainer returned to its position.

By equipping a down spout with a catch strainer constructed in accordance with my invention, all of the coarser debris, such as leaves and the like, blown and falling onto the roof, and sparrows' nests built in the eave troughs, are received by the strainer cylinder and prevented from being washed into the cistern through the down spout, without impeding the flow of water through the spout.

What I claim to be new is—

1. A catch strainer for down spouts, comprising an elongated casing, having sides

and top and bottom ends and an opening in one side provided with a closure and having alined pipe sections, one projecting upward from the top end and one downward from the bottom end of the casing, adapting the casing to be interposed in and form a section of a down spout, and an elongated hollow receptacle of greater diameter than the pipe sections and adapted to be inserted into and removed from the casing through the opening, and to be mounted on the bottom end of the casing in axial alinement with the top and bottom pipe sections, said receptacle comprising a continuous strainer wall formed of wire mesh and being open at the top and having a bottom inset a distance above the lower end of the wall, whereby water flowing into the upper end of the receptacle may flow outward through the strainer wall above the bottom into the casing and from the casing back into the lower pipe section through the strainer wall below the bottom.

2. In a catch strainer for down spouts, the combination with a down spout, of a section adapted to be interposed in and form a part of the down spout, comprising a casing having alined pipe sections, one projecting from the top and one from the bottom end of the casing, and having an opening at one side of the top pipe section, a closure for the opening, and a catch strainer insertible into and removable from the casing through the opening and supportable on the bottom of the casing between the pipe sections, said strainer comprising an open top cylinder formed of coarse wire netting, and a cup shaped strainer bottom secured in the lower end of the cylinder at a distance above the lower end.

In witness whereof, I, LOUIS THIEM, have hereunto set my hand at Toledo, Ohio, on the 30th day of January, 1912, in the presence of two subscribing witnesses.

LOUIS THIEM.

In presence of—
WM. J. FRITSCHE,
FRANK W. MACPHIE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."