

No. 765,749.

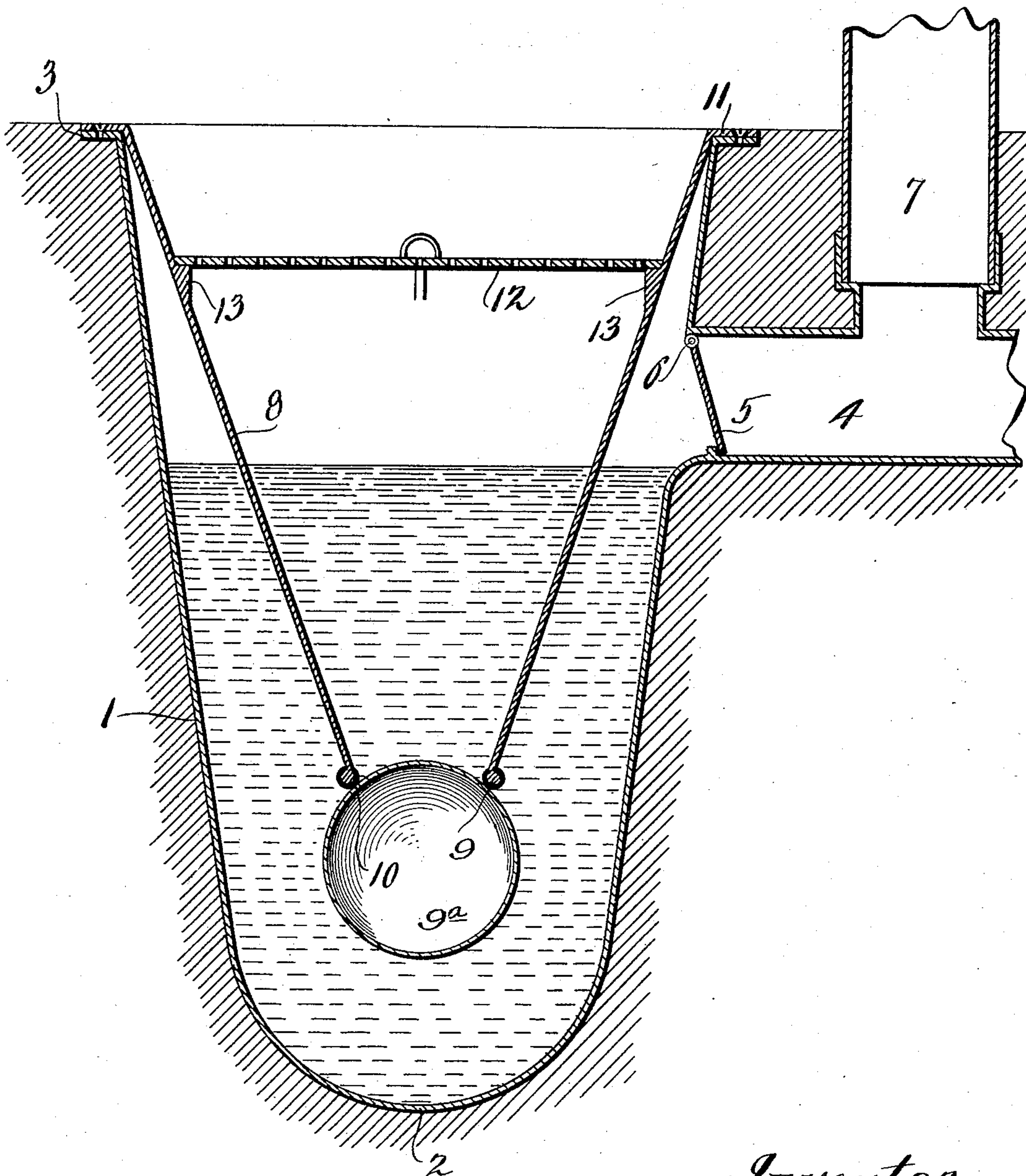
PATENTED JULY 26, 1904.

C. W. O'NEILL.

COMBINED SLOP HOPPER, FLOOR DRAIN, AND BACKWATER TRAP.

APPLICATION FILED FEB. 9, 1903.

NO MODEL.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES W. O'NEILL, OF PEORIA, ILLINOIS.

COMBINED SLOP-HOPPER, FLOOR-DRAIN, AND BACKWATER-TRAP.

SPECIFICATION forming part of Letters Patent No. 765,749, dated July 26, 1904.

Application filed February 9, 1903. Serial No. 142,657. (No model.)

To all whom it may concern:

Be it known that I, CHARLES W. O'NEILL, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in a Combined Slop-Hopper, Floor-Drain, and Backwater-Trap; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a combined slop-hopper, floor-drain, and backwater-trap, and has for its object a device of the class described which is simple in construction, cheap at first cost, and well adapted for the purposes for which it is designed.

The invention comprises in its structure a cone-seal detachably supported in a suitable hopper, a seamless spherical float adapted to close the lower end of the seal, and an outlet connected with the hopper for conveying off water, which said outlet is provided with a supplemental swinging valve as a safeguard against a backflow into the hopper and an air-vent leading off from the outlet through which gases accumulating in the outlet will pass off.

Further objects of the invention will become apparent from the following description, and drawing accompanying said description, in which the figure shows a vertical sectional view of my device.

Referring to the drawing, 1 indicates a suitable hopper, shell, or trap portion having an inverted-dome lower portion 2, tapered side walls, and an annular flange 3 at the upper edge thereof. Approximately half-way down the hopper leads off an outlet-pipe 4 of suitable diameter, and the opening leading into the outlet-pipe from the hopper is controlled by a swinging valve 5, pivoted at 6, which normally closes the opening aforesaid. At a suitable point on the outlet-pipe 4 is connected a vent-pipe 7, leading out into the open. This vent may be in the position shown or in any other desired position convenient for use.

8 refers to a cone-seal extending down into the hopper 1, with its lower edge forming a

ring 9, around which is secured a rubber ring or gasket 10, which is slipped on over the ring 9, as shown. The lower edge of the seal is placed a suitable distance from the bottom of the hopper and is adapted to be sealed by a seamless copper spherical float 9^a in the manner shown in the figure. The upper enlarged end of the seal 8 has a flange 11, corresponding to the flange 3 of the hopper, and lies upon the same when in position and is secured thereto. When in working position, the upper face of the flange 11 of the seal 8 is designed to lie flush with the upper face of the floor or other place in which the device is secured.

12 indicates a perforated strainer of a plate adapted to be supported a suitable depth in the seal 8 upon the lugs 13 for dividing the cone in the manner shown.

When in operation, the water or refuse liquid is poured in the cone-seal. Passing through the perforated strainer temporarily dislodges the ball from its position, closing the lower end of the seal, and the water rising in the hopper passes out through the outlet and in so doing opens the swinging valve described, which automatically closes itself. The provision of a ball-float and a supplemental valve, such as valve 5, is readily apparent. Should the valve 5 fail to stop any backwater flow, which might easily occur in the outlet, the ball 9^a will rise and positively engage the gasket on the lower edge of the cone and seal the same. The vent connected with the outlet provides for taking off all odors or gases which might otherwise pass beyond the valve 5 and the ball 9^a.

Another advantage in the structure herein is its adaptability to the various uses outlined in the preamble of the specification, all of which is readily apparent to those skilled in the art. The structure is also such that by the removal of the cone 8 the entire device may be easily got to by the user and as easily replaced.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

In a device of the type set forth, the combination with a hopper having tapered lower

side walls, one wall extending at substantially
right angles centrally thereof to form a con-
duit, an upwardly-projecting lug formed in-
tegral with the conduit portion near the end
5 thereof, a flap-valve pivoted above the said
lug in the conduit and adapted to engage the
lug, a tapered trap having interiorly-dis-
posed lugs therein, a seat-forming flange
formed at the lower end of the trap, a resili-

ent means carried on said seat, and a float- 10
valve adapted to engage said means, substan-
tially as set forth.

In testimony whereof I affix my signature in
presence of two witnesses.

CHARLES W. O'NEILL.

Witnesses:

ROBERT N. McCORMICK,
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