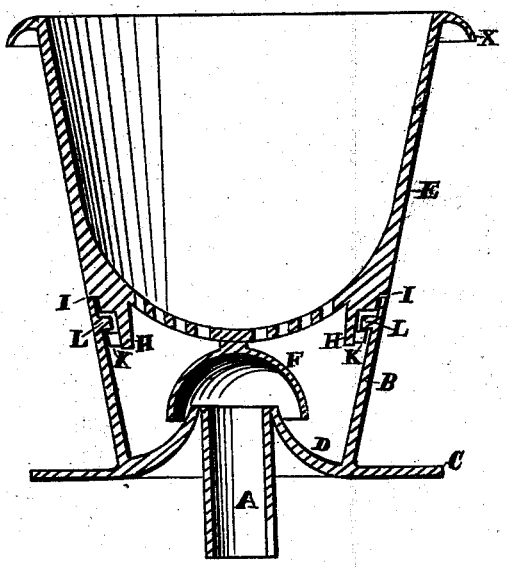
M. M. HARVEY.

SLOP-HOPPER.

No. 187,624. Patented Feb. 20, 1877.

Fig. 1.



Witnesses

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MILES M. HARVEY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN SLOP-HOPPERS.

Specification forming part of Letters Patent No. **187,624**, dated February 20, 1877; application filed September 16, 1876.

To all whom it may concern:

Be it known that I, MILES M. HARVEY, of the city and county of San Francisco, and State of California, have invented an Improved Slop-Hopper; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings.

My invention consists in certain details of construction, as hereinafter more fully set forth.

Referring to the accompanying drawings, A is the drain-pipe, which passes up into the center of the trap-vessel B. The trap-vessel rests upon the floor of the yard or other support, and has a flange, C, surrounding it, which can be secured to the floor or support by screws, to render the vessel B permanent. The bottom D of this trap-vessel is conical, and the drain-pipe A, as above stated, passes up through its center. E is the hopper, which rests upon the trap-vessel B. The bottom of this hopper is perforated, so that the liquid portion of the slops which are thrown into it, and such small particles of matter as will readily pass through the drain-pipe A, will pass through the perforations into the trap-vessel B, while the larger particles are retained in the hopper from which they can be removed when desired. To the bottom of the hopper E I secure a bell-shaped or semi-spherical shell, F, with its mouth downward, so that when the hopper E is in position upon the trap-vessel B the bell will be inverted over the apex of the conical bottom D of the trap-vessel, and consequently over the end of the drain-pipe, thus forming a water-sealed joint or trap, that will prevent the foul air and gases which are generated in the drain pipe or sewer from rising upward through the hopper. This inverted bell-shaped shell is secured permanently to the bottom of the hopper, so that when the hopper is lifted off of the trap-vessel to be cleaned the shell will also come off with it, and will serve as a foot or base for the hopper to stand upon in case it is set down upon the floor. This base therefore will prevent the floor from being soiled by the greasy bottom of the hopper. The entire rim of the hopper-vessel E turns over, as represented at X, so that it will form a handle that can be grasped hold of by the fingers when it is desired to lift the vessel about.

In order to conveniently provide for attaching the hopper in position upon the trap-vessel B and removing it therefrom, I form a rabeted seat, I, around the lower edge of the hopper-vessel, in which the upper edge of the trap-vessel will fit, or vice versa, as most convenient, and inside of this seat I form a flange, H, which will project down into the trap-vessel a short distance inside of its rim. On the outside of this flange I form, at different points, two or more inclined ribs or projections, K K, and in a corresponding relation on the inside of the trap-vessel I form other oppositely-inclined ribs or projections L L, so that by placing the hopper upon the trap-vessel, and giving it a slight turn, the inclined lugs on the flange H can be interlocked with the oppositely-inclined lugs on the inner side of the trap-vessel, and thus firmly fasten the two vessels together, with the bell F properly inverted over the end of the drain-pipe, so as to form a water-joint or stench-pipe.

The liquid portion of every charge of water or slops emptied into the hopper will pass through the perforated bottom and wash the curved or outer surface of the bell, so as to prevent it from accumulating matter on its outside, and the peculiar angular shape of the cavity around the cone-bottom D of the trap-vessel will cause each charge of liquid, as it flows down the outside of the bell, to strike into the angle at the base of the cone, and wash any particles that may have gathered in it over the top of the cone, into the drain-pipe and sewer.

Although the conical bottom of the trap-vessel is a great convenience, because it aids in rendering the trap self-cleaning, it could be dispensed with, and the drain-pipe could be made to simply project up into the vessel.

This device is very simple, and can be cheaply constructed. The hopper can be readily removed to be cleaned out and again as readily replaced, while the trap arrangement is self-cleaning, and forms a perfect water-valve, which will prevent any gases which may be generated in the drain or sewer from being

discharged through the hopper into the open air.

Having thus described my invention, I claim and desire to secure by Letters Patent—

The trap-vessel B, provided with the inclined lugs L L, in combination with the hopper-vessel E, with its rabbeted seat I, and having the flange H, with its oppositely-inclined lugs K K, arranged to interlock with the lugs L on the trap-vessel, substantially as and for the purpose described.

In witness whereof I have hereunto set my hand and seal.

MILES M. HARVEY. [L. S.]

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