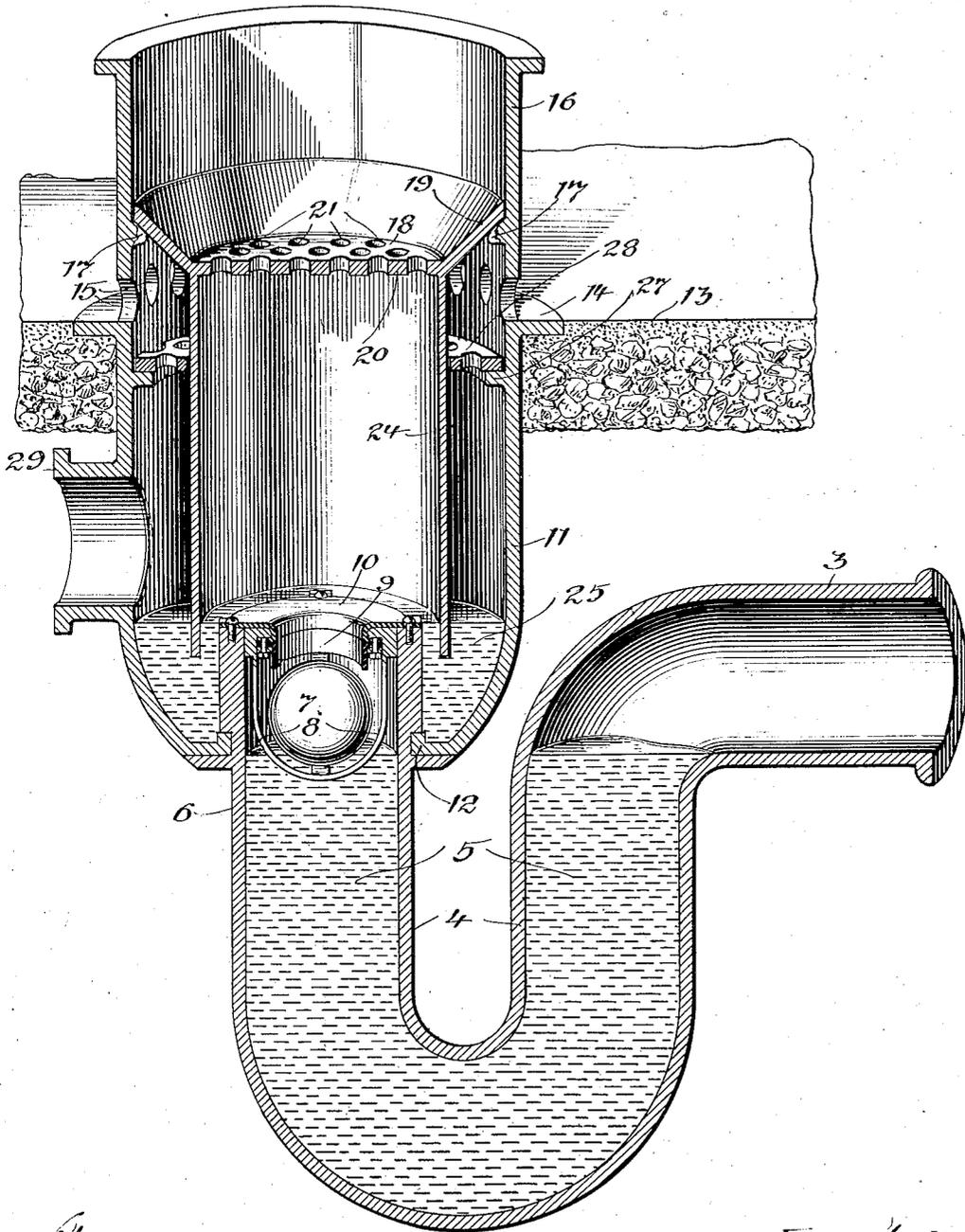


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 COMBINED FLOOR DRAIN AND HOPPER.
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1,109,740.

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UNITED STATES PATENT OFFICE.

GEORGE J. DEHN, OF CHICAGO, ILLINOIS.

COMBINED FLOOR-DRAIN AND HOPPER.

1,109,740.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE J. DEHN, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Combined Floor-Drains and Hoppers, of which the following is a full, clear, and exact description.

The invention relates to combined floor drains and hoppers or receivers.

One object of the invention is to provide an improved fitting which comprises a basin adapted to be secured in the floor so that the drainage from the floor will pass into it and which is also provided with a hopper into which other matter may be emptied or dumped without being first discharged on the floor.

A further object of the invention is to provide a fitting of this type with removable parts which prevent large pieces of solid matter from passing to a trap beneath the hopper or receiver-basin, and which can be readily removed for cleaning.

The invention further designs to provide an improved combined floor-drain and hopper.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claims at the conclusion hereof.

The drawing is a sectional perspective of the device embodying the invention.

A pipe 3 leads to the sewer and is provided with a trap-bend 4 adapted to contain a water-seal 5 and in an upwardly extending inlet-terminal 6, a back-water valve 7 is held in a cage 8 and is adapted to close against a suitable seat 9, which is secured to a cap 10 which is on the top of the terminal 6. A receiver-basin 11 is detachably connected by a slip and interlocking connection 12, such as set forth in Patent No. 935,000 granted to me Sept. 28, 1909. This basin extends through the floor 13 and is formed with a flange 14 which is seated in the top of the floor. In the side-wall of basin 11 and immediately above flange 14, a series of holes 15 are formed to direct any drainage on the floor into the basin 11 and this part of the device serves as a floor-drain. The side-wall of said basin extends above the floor as at 16 and this portion serves as a hopper for receiving slop or other matter to be discharged into the sewer. Above openings 15 and below the top of hopper

16, lugs 17 are formed on the inside of the hopper to removably support a hopper-bottom 18, which comprises an inwardly and downwardly sloping conoidal outer portion 19, and a bottom-wall 20 having openings therein through which the slop may pass. A pendant cylindrical wall 24 extends downwardly from bottom 18 into a water-seal 25 formed around the inlet terminal 6 in the bottom of basin 11. Perforated wall 20 of this bottom 18 is designed to catch the solid matter which is likely to obstruct the discharge pipe and connections and to arrest it so it will not pass into the trap, and inclined wall 19 is imperforate to exclude the slop from the space between wall 20 and the outer wall of basin 11 through which the floor-drainage passes. A flange 27 is formed on the inside of basin 11 to removably support a strainer 28 which extends between wall 24 and the side of basin 11. A connection 29 is provided at one side of basin 11 to which an overflow or other pipe may be connected to deliver the drainage from some other fitting into the receiver 11, if desired. If not desired, this connection may be closed by a plug of usual construction.

The device thus provides a combined floor-drain and hopper in which the sediment collector or bottom of the hopper may be readily removed for cleaning, as may be done by lifting the hopper-bottom 18 out of the hopper 16. Wall 24 serves to conduct the drainage from the bottom of the hopper to the pipe 6 so that it cannot escape or splash out through openings 15 for floor-drainage. Strainer 28 may also be readily removed when the hopper-bottom 19 is removed. The water-seal 5 in the trap bend and the water-seal 25 serve to effectively prevent any odor from passing back from the sewer.

The invention is not to be understood as restricted to the details set forth, since these may be modified within the scope of the appended claims without departing from the spirit and scope of the invention.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. A combined floor-drain and hopper comprising a receiver-basin, adapted to be secured in a floor, and having openings adjacent the floor for directing floor-drainage into the receiver, a hopper above the basin, a perforated hopper-bottom, a discharge-means for conducting drainage from said

bottom through said basin, and a pipe connected to the bottom of said basin.

2. A combined floor-drain and hopper comprising a receiver-basin, adapted to be
5 secured in a floor, and having openings adjacent the floor for directing floor-drainage into the receiver, a hopper above the basin, a perforated hopper-bottom removably held
10 in the hopper, a discharge-means for conducting the drainage from said bottom through said basin, and a pipe connected to the bottom of said basin.

3. A combined floor-drain and hopper comprising a receiver-basin, adapted to be
15 secured in a floor, and having openings adjacent the floor for directing floor-drainage into the receiver, a hopper above the basin, a perforated hopper-bottom, discharge-means for conducting drainage from said
20 bottom through said basin, and a pipe connected to the bottom of said basin, said hopper-bottom having an inwardly sloping rim and being integral with said conducting-means.

4. A combined floor-drain and hopper, comprising a receiver-basin, having a floor-flange, the receiver-basin having openings
25 adjacent the flange for directing floor-drainage into the receiver, a hopper above the flange, a perforated hopper-bottom, a discharge-pipe having an inlet terminal extended above the bottom of the receiver to retain the liquid in the bottom of the receiver in the basin, and a wall extending
30 downwardly from the hopper-bottom below the top of the inlet pipe and into the water around it.

5. A combined floor drain and hopper comprising a basin having a floor-flange, the basin having openings adjacent the
40 flange for directing floor-drainage into the receiver, a hopper above the flange, a removable perforated hopper-bottom, a removable strainer in the basin below said openings, a pipe having a trap therein connected to the bottom of said basin, and a wall extending downwardly from the hopper bottom below the top of the inlet-pipe.

6. A combined floor-drain and hopper
50 comprising a receiver-basin, the basin having openings adjacent the floor for directing floor-drainage into the basin, a hopper above the basin and integral therewith, a removable perforated hopper-bottom, a wall for conducting water from the hopper-bottom to the lower portion of said basin, and a discharge-pipe having a trap therein connected to the bottom of said basin.

7. A combined floor-drain and hopper

comprising a receiver-basin, the basin having
60 openings adjacent the floor for directing floor-drainage into the basin, a hopper above the basin and integral therewith, a removably perforated hopper-bottom, a wall for conducting water from the hopper-bottom to the lower portion of said basin, said
65 bottom comprising an inwardly inclined outer portion, and a discharge-pipe having a trap therein connected to the bottom of said basin said wall being removable with
70 said hopper-bottom.

8. A combined floor-drain and hopper comprising a basin, having a floor-flange, the basin having openings adjacent the flange for directing floor-
75 drainage into the receiver, a hopper above the flange and integral with the basin, a removable hopper-bottom, a discharge-pipe having a trap therein, connected to the bottom of said basin, and a wall extending
80 downwardly from the hopper-bottom below the top of the discharge-pipe, the hopper-bottom comprising an inwardly and downwardly inclined imperforate outer portion and a perforated central portion.

9. A combined floor-drain and hopper comprising a basin, having a floor-flange, the basin having openings adjacent the
85 flange for directing floor-drainage into the receiver, a hopper above the flange and integral with the basin, a removable perforated hopper-bottom, a discharge-pipe having a trap therein connected to the bottom of said basin, a wall extending downwardly from the hopper-bottom below the
90 top of the discharge-pipe, the hopper-bottom comprising an inwardly and downwardly inclined imperforated outer portion and a perforated central portion, and a removable strainer below the inlet perforations for floor drainage and between said
95 wall and the side of said basin.

10. A combined floor drain and hopper comprising a receiver basin having a floor
100 flange, the basin having openings in its side adjacent the flange for directing floor drainage into the receiver, a hopper above the basin, a perforated hopper bottom removably held in the hopper above the side
105 openings in the basin, discharge-means for conducting drainage from said bottom through said basin, and a pipe connected to the bottom of said basin.

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