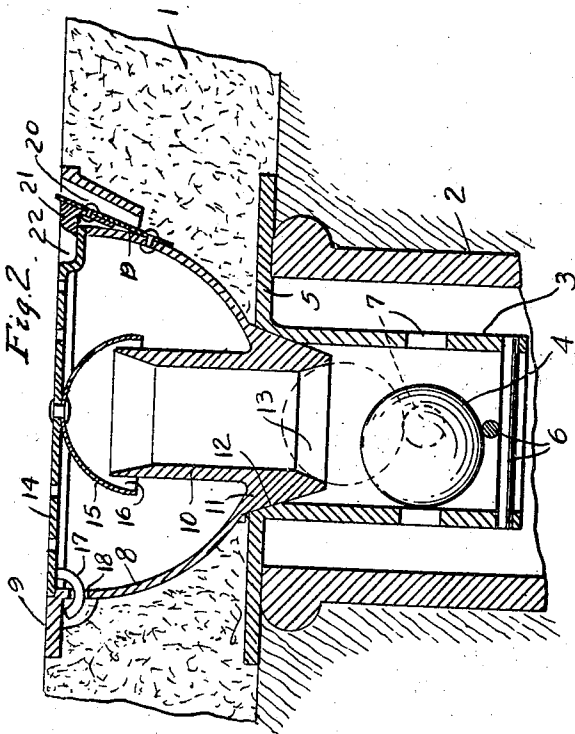
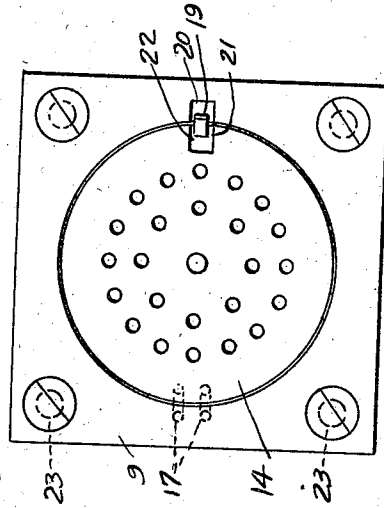
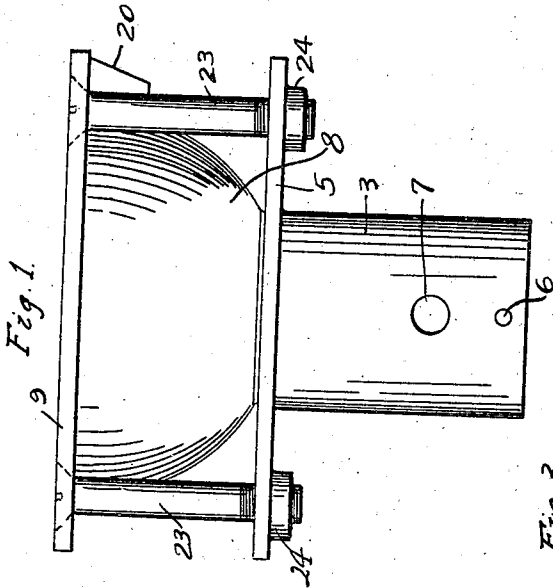


Oct. 9, 1923.

1,469,790

H. H. HYSKO  
BELL TRAP FLOOR DRAIN  
Filed May 2, 1921



Inventor

Hipolit H. Hysko.

By

B. A. Muehler

Attorney

# UNITED STATES PATENT OFFICE.

HIPOLIT H. HYSKO, OF DETROIT, MICHIGAN.

BELL-TRAP FLOOR DRAIN.

Application filed May 2, 1921. Serial No. 466,362.

*To all whom it may concern:*

Be it known that I, HIPOLIT H. HYSKO, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented a new and useful Bell-Trap Floor Drain, of which the following is a specification.

This invention relates to bell trap floor drains, and more particularly to bell trap floor drains having check valves preventing a back flow from the sewer into which the drain empties.

It is the object of the invention to provide a fitting of the type specified that will afford easy access to the check valve so that the same may be inspected and replaced when necessary without difficulty.

A further object of the invention is to utilize certain standard parts in constructing the improved fitting so as to minimize the preliminary manufacturing expense.

In attaining these objects the invention contemplates arranging a check valve casing permanently below a floor and in discharge connection with a drain pipe, and removably fitting in said floor a bell trap member detachably secured to said check valve casing, and having a suitably perforated cover flush with the floor, said trap seating upon said valve casing and discharging there-through into the drain pipe.

A preferred embodiment of the invention is hereinafter disclosed and is illustrated in the accompanying drawing, wherein,

Fig. 1 is a view of the improved fitting in side elevation.

Fig. 2 is a vertical sectional view of the fitting showing the same installed in a floor.

Fig. 3 is a plan view of the device.

In these views the reference character 1 designates a floor formed of concrete or the like, and 2 is a drain pipe beneath said floor and opening in close proximity to the floor. Within the upper end of said pipe there depends a cylindrical open-ended casing 3 for a ball valve 4, said casing having at its upper end a flange 5 engaging beneath the floor 1 and having one or more rods 6 diametrically arranged within its lower end to retain said ball valve. Also to compensate, under normal conditions, for restricting of the passage through said casing by the ball valve, it is preferred to form a circumferential series of discharge ports 7 in said casing. A bowl-shaped trap member 8 is removably fitted in the floor 1, above the pipe

2, and is formed with a marginal flange 9 engaging the floor flush with the surface thereof. Said bowl-shaped member is integrally formed with a central tubular discharge outlet 10 projecting a considerable distance upwardly into the bowl and extending downwardly a lesser distance. The depending portion 11 of said outlet has a relatively thick wall and is exteriorly tapered to snugly engage a correspondingly shaped seat 12 formed within the upper end of the casing 3. Said depending portion is terminally formed with an interior flare, as indicated at 13, and as is shown in dash lines in Fig. 2. The flared surface 13 provides a seat for the ball valve 4 when the latter is subjected to the pressure of a back flow in the pipe 2.

The rim of the bowl member 8 forms a seat for a perforated drain plate 14 to which is centrally secured within said bowl member, a bell-shaped guard or shield 15 which surrounds the intake end of the outlet 10, being spaced from the latter to form a restricted annular passage 16. A hinged connection may be formed between the plate 14 and bowl member 8, the drawing showing such a connection established by a pair of curved pins 17 secured to said plate adjacent the edge thereof and projecting downwardly and laterally to loosely engage in apertures 18 in the top portion of the bowl member. Provision is also made by the invention for normally latching the plate 14 in its position of use, this provision comprising a leaf spring 19 exteriorly secured to the bowl member and projecting upwardly within a housing 20 formed integrally with said bowl member, a latch head 21 being carried by the upper end of said spring and engaged normally in a depressed portion 22 formed in the plate 14 diametrically opposite to the hinge 17. By slightly stressing the spring 19 said latch head may be disengaged from the drain plate 14, permitting the latter to be swung up to give access to the trap. The trap member is detachably secured upon the valve member by bolts 23 which extend through the flange 9 of the former into engagement with screwthreaded bosses 24 on the flange 5 of the latter member. When access to the valve casing 3 is desired, it is necessary only to remove the bolts 23, whereupon the trap with its cover may be lifted from position. Thus inspection or replacement of the ball valve may be accom-

2  
plished without difficulty. When the trap member is replaced and the bolts 23 are tightened the tapered downward extension 11 is forced firmly into the seat 12, effecting  
5 a water tight joint.

The described construction is one that may be inexpensively manufactured and easily installed.

What I claim is:

10 A bell trap drain comprising a cylindrical casing flanged at one end and having a tapered opening therein, a ball valve in said

casing, a flanged cylindrical trap member having a central depending portion tapered exteriorly for seating engagement with the tapered opening of said casing and interiorly tapered for seating engagement with said ball valve, and tie members interconnecting the flanges of said valve case and trap member for retaining said members engaged.

15  
20  
In testimony whereof I sign this specification.

HIPOLIT H. HYSKO.