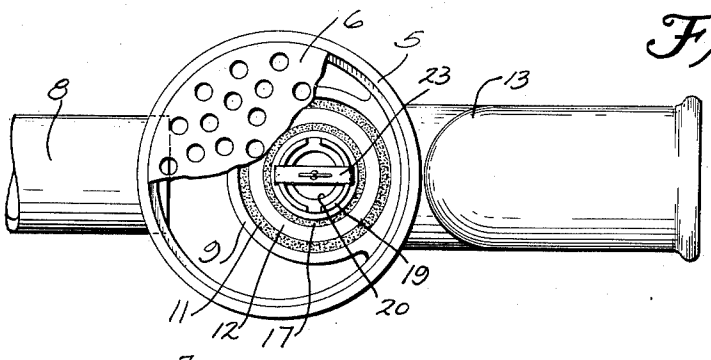
April 18, 1950 J. VAN OSS 2,504,474

VALVED CATCH BASIN FOR DRAINS

Filed March 31, 1948

Fig. 1



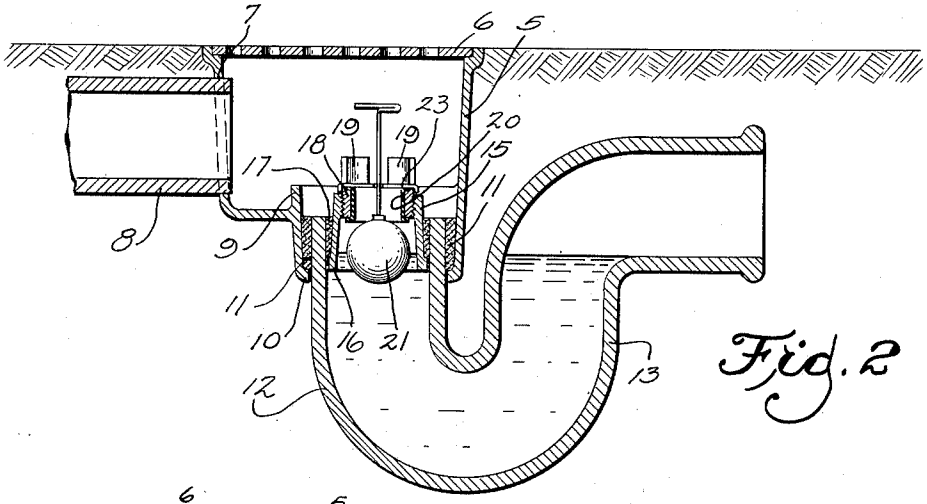


Fig. 2

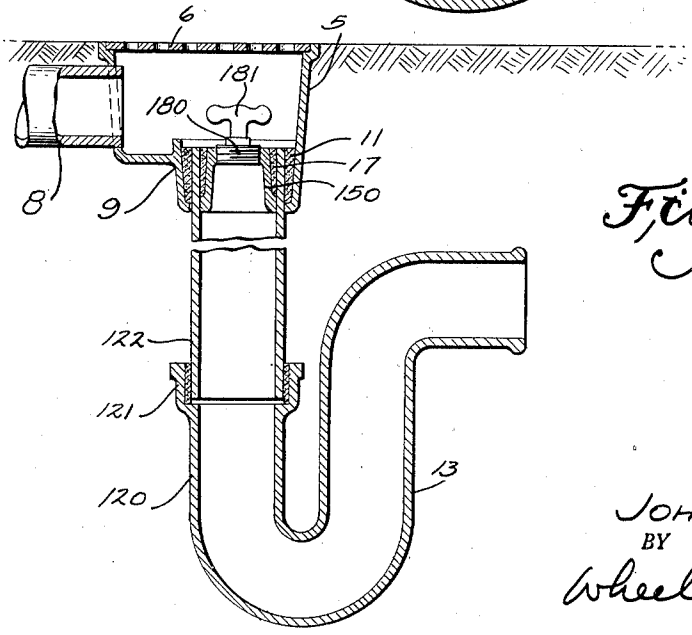


Fig. 3

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VALVED CATCH BASIN FOR DRAINS

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8 Claims. (Cl. 182—4)

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This invention relates to a valved catch basin for a drain.

It is the primary object of the invention to provide an improved catch basin having wider application than any existing catch basin and provided with an opening to receive a surface drain tile and having a valve seated in its outlet pipe, the joints between the outlet pipe and the valve within it being caulked, as are also the joints between the outlet pipe and the catch basin.

It is a further object of the invention to provide a catch basin having an off-center outlet surrounded by an annular flange merging with one wall of the catch basin and over which water discharged from the catch basin has to pass to the drain.

It is a further object of the invention to provide a drain in which the trap may be located at any desired level below the catch basin thereby meeting special conditions of frost and the like and with a minimum of joints requiring caulking. Details of the invention will appear more particularly from the following disclosure.

In the drawings:

Fig. 1 is a plan view of a catch basin installation embodying the invention, portions of the cover being broken away to expose the interior.

Fig. 2 is a view in longitudinal sections through the drain shown in Fig. 1.

Fig. 3 is a view in longitudinal section through a modified embodiment of the invention.

The catch basin 5 is shouldered near its upper margin to receive the usual perforated cover 6. At one side the catch basin is provided with an aperture at 7 for a drain tile 8 for leading surface water or the like into the catch basin. If no drain tile is required, this opening will be closed with cement when the catch basin is set in cement in the usual way.

The catch basin is provided with a sleeve 9 extending above its bottom in the form of an upstanding annular flange to constitute an outlet well which is off-center, the sleeve flange 9 merging with the side wall of the catch basin at the side thereof opposite that in which the opening 7 is located. The sleeve 9 continues below the bottom of the catch basin and is formed inwardly at 10 to provide a seat for caulking 11 about the drain trap 12. The latter may be integrally provided with a deep seal P-trap at 13, Fig. 3.

It will be observed that the sleeve 9 tapers slightly, thus facilitating the wedging of the caulking 11 into place about the drain trap 12.

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Within the pipe is provided a valve casing 15 which is also frusto-conical, tapering outwardly however, and terminating in an enlarged flange at 16. This flange is only slightly smaller than the interior of the drain trap 12 and the wall of the valve casing expands upwardly therefrom leaving space within which caulking 17 is wedged between the valve casing and the interior surface of the upper end of the drain trap 12.

An annular valve seat member 18 is threaded into the upper end of the valve casing 15 and has a relatively thick wall from which a plurality of segments 19 project upwardly and are mutually spaced to provide slots. A bushing at 20 preferably lines the interior in which the float valve 21 seats when raised by water entering or tending to enter the basin from below. The float valve 21 is guided in a bridge or strap member 23 spanning the valve seat member 18 and confined in diametrical slots between the upstanding strainer segments 19.

The construction shown in Fig. 3 involves two changes either one of which may be adopted independently and used in the otherwise similar construction of Figs. 1 and 2.

In the Fig. 3 construction a drain pipe extension is used, the deep-seal P-trap 120 having a bell 121 at its upper end to receive the inserted extension 122, this being in caulked connection with the basin 5 exactly as above described. The advantage of using the drain pipe extension at 122 is to locate the trap water below frost if frost is a problem.

The second change involves the substitution of a manually operable valve for the automatic float valve already described. The valve casing 150 has no upstanding strainer segments 19 but it is held in place by caulking 17 exactly as in the construction of Figs. 1 and 2. However, instead of having a valve seat member threaded therein, it has a plug at 180 provided with an integral hand wrench 181 by means of which it may be screwed into place or unscrewed as desired.

Both devices are extremely simple of installation and in each several caulked joints are eliminated as compared with existing devices of the kind. In each it is also possible to provide for quite a wide variety of installations due to the eccentric location of the outlet. In each case the drain pipe extends into the tapered sleeve 9 of the basin and in each case it is wedged there by the caulking 11. In each case the valve casing 15 or 150 is held within the end of the drain pipe by interior caulking at 17. In each case it

is possible to prevent backwater from entering the basin, one valve being automatic and the other manually operated.

I claim:

1. A catch basin installation comprising the combination with a basin having a discharge sleeve in its bottom, the said sleeve extending materially above the bottom of the catch basin and being eccentrically disposed therein integrally with one of the side walls of the catch basin, of a drain pipe disposed within the sleeve, a valve casing within the upper end of the pipe, and caulking at both sides of the pipe between it and the sleeve and the valve casing respectively.

2. The device of claim 1 in combination with means which extends materially above the bottom of the basin and has its upper end subdivided by slots to comprise strainer segments.

3. The device of claim 1 in which said valve casing is provided with an automatically operable float valve having a stem, said casing being provided with a bridge member in which said stem is guided.

4. The device of claim 1 in which said valve casing is provided with a manually operable valve plug provided integrally with a manually engageable key.

5. The combination with a catch basin having a wall and a bottom, the bottom being provided with an off-center outlet opening and an integral sleeve surrounding said opening and merging with one wall of the catch basin and extending below the bottom of the catch basin, said wall having an inlet opening in a wall of the catch basin opposite the side at which said sleeve is disposed.

6. In a device of the character described, a catch basin having a wall and a bottom, said bottom having a discharge opening located off center and provided with a surrounding sleeve extending both above and below the bottom of the catch basin and tapering downwardly and provided with an inwardly formed marginal flange at its bottom, in further combination with a drain pipe extending through said flange into said sleeve and caulking packed between said pipe and sleeve, together with a valve casing having at its bottom an outward flange, said flange being fitted within said pipe and the space between said casing and pipe being packed with caulking.

7. In a device of the character described, a

catch basin having a wall and a bottom, said bottom having a discharge opening located off center and provided with a surrounding sleeve extending both above and below the bottom of the catch basin and tapering downwardly and provided with an inwardly formed marginal flange at its bottom, in further combination with a drain pipe extending through said flange into said sleeve and caulking packed between said pipe and sleeve, together with a valve casing having at its bottom an outward flange, said flange being fitted within said pipe and the space between said casing and pipe being packed with caulking, said valve casing being provided with a valve member in screw threaded connection therewith.

8. In a device of the character described, a catch basin having a wall and a bottom, said bottom having a discharge opening located off center and provided with a surrounding sleeve extending both above and below the bottom of the catch basin and tapering downwardly and provided with an inwardly formed marginal flange at its bottom, in further combination with a drain pipe extending through said flange into said sleeve and caulking packed between said pipe and sleeve, together with a valve casing having at its bottom an outward flange, said flange being fitted within said pipe and the space between said casing and pipe being packed with caulking, said valve casing being provided with a valve member in screw threaded connection therewith, said valve member having upstanding segments constituting a strainer for filtering material overflowing said sleeve and entering the top end of said valve casing.

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