

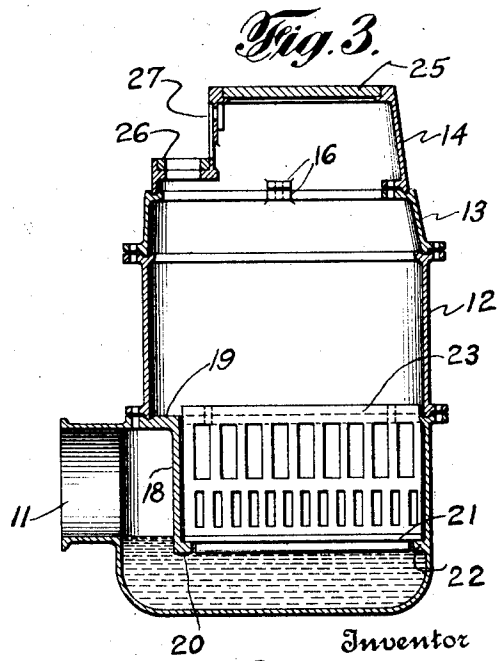
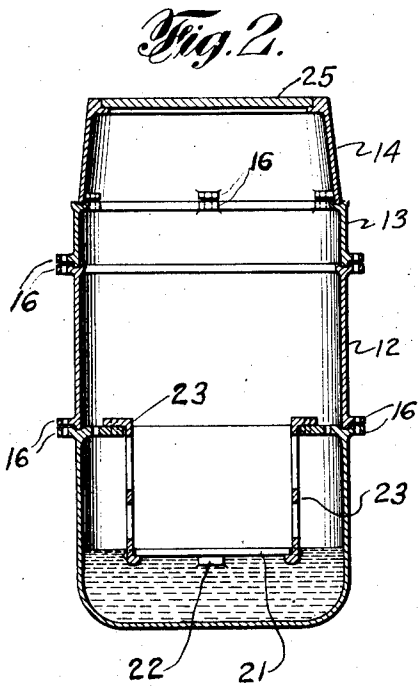
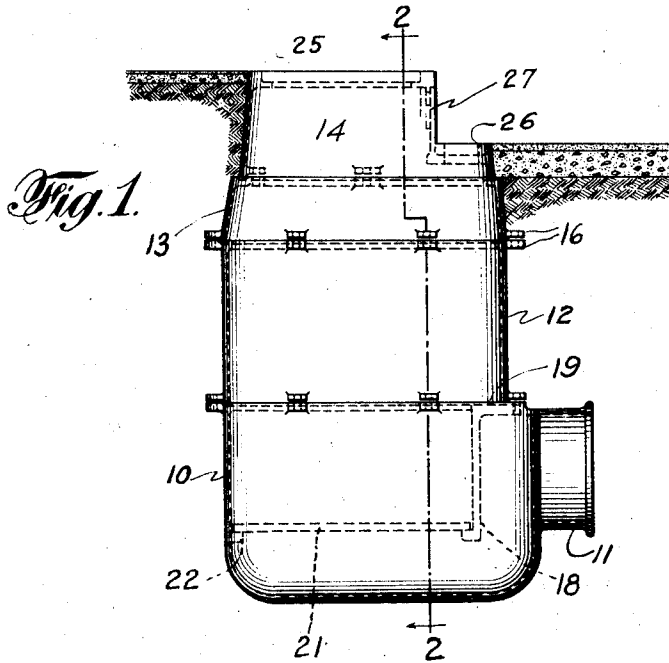
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F. KOCH

CATCH BASIN

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UNITED STATES PATENT OFFICE.

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CATCH BASIN.

Application filed October 15, 1926. Serial No. 141,687.

My invention relates to improvements in catch basins, and more particularly to the type which is intended to catch debris or trash of the nature that would obstruct the sewer.

An object of my invention is to provide a simple, cheap and efficient structure in a street catch basin which though made of standard parts, may be of varying sizes to meet varying conditions, and is economical to install and maintain and will be highly satisfactory and sanitary in use.

My invention will be best understood by referring to the accompanying drawings which illustrate a form of my invention and to the following description in the accompanying specification. In the drawings:

Fig. 1 represents a side elevation of a basin showing its relation to or its setting in the ground;

Fig. 2 is a section on the line II—II of Fig. 1; and Fig. 3 is a central cross sectional elevation through the outlet.

Like reference characters indicate like parts in the several views.

Referring to the drawings by characters of reference, my improved catch basin in the embodiment herein illustrated, comprises a bottom tank basin member 10, containing a discharge outlet or a sewer inlet 11 and a trash or filter box. Above this bottom member and resting thereon is an intermediate section or body portion 12, the sides or walls of which are a vertical continuation of the walls of the basin member. A partially tapering collar-like reducing section 13 rests on this intermediate portion and a top or inlet member which is a casting 14, surmounts the whole structure. The intermediate casting 12 may be of any desired length and may be in one or more pieces. The casting 12 may be omitted entirely where it is not necessary to secure the required drop from the sidewalk and gutter level to the sewer inlet level, which level must accommodate itself in some manner to the level of the sewer invert as arranged by the engineers. The advantage of using a separate piece 12 is great where the street level is changed after installation of the basin.

The bottom section 10 may be cylindrical or square in plan, or it may have any desired shape. There are no sharp corners in this casting which would make the construction or casting operation difficult, or

impede free flow by accumulations of solid material in the corners of the basin. The bottom casting therefore may easily be cleaned. In addition it has a tendency to scour itself relatively clean. The use of a suspended filter box in the lowermost casting of this catch basin permits a large water storage space which permits a better trapping or sealing effect against sewer air. This large capacity will also require less frequent cleaning operations, and at the same time will slow down the passage of water through the basin which aids in precipitating sediment in this part of the sewage system from which it may be more easily removed than from the street system.

Each section member of this catch basin has in its upper edge a continuous recess or groove to accommodate and retain the edge of the upper section which extends downwardly into this groove. The positioning of a supporting edge in this recess will seal the joint between each of the various sections to prevent the entry of solids. Flange lugs 16 cooperate to secure together the sections of the catch basin and are perforated for the passage of retaining bolts to provide a rigid construction.

The bottom casting 10 is formed with a discharge outlet 11 cast integral with one of the narrower sides. A baffle plate 18 depends from an inwardly extending flange 19 and both are integral with the body of the basin. The baffle 18 extends entirely across the basin and is spaced in front of and at a slight distance from the outlet 11 and extends some distance below the outlet 11 to form a sealing trap. This baffle plate has a lug or flange 20 turned inwardly or away from the outlet nozzle to support an imperforate plate 21. This plate 21 is mounted along the bottom edge and adjacent the center of the baffle plate 18 and its opposed short edge rests on a rib or flange 22 extending from the wall of the casting 10 opposite the baffle plate 18. Flanges extend from the longer sides of the basin and assist in supporting the baffle plate, at its outer extremities. These flanges carry L-shaped members or castings 23 which serve as gratings or grids for the filter box and are flanged at their lower extremities to support the bottom plate 21 of the filter box. These L-shaped gratings are preferably rigidly bolted to the side flanges, but are not secured to the bottom plate which may be easily re-

moved with proper tools to provide access to the lower portion of the catch basin. Thus the plate 21 is tightly fitted against its supports and forms a satisfactory closure to the filter box in the basin portion. This strains out straws and sticks which might obstruct the sewer by lodgment therein. Removal of this matter from the filter box is more readily accomplished than would be possible from the sewer and ready removal of the bottom plate 21 provides easy access to the catch basin, as noted above.

The upper or inlet member 14 has a man-hole cover 25 recessed into its head section in the usual manner. As shown, this cover is a part of the sidewalk and may have the usual or any suitable structure affording easy access to the interior of the catch basin. A gutter grating 26 is recessed into the gutter portion of the catch basin at the street level and may be arranged to be readily removable by the proper parties. A curb grating 27 of any desired structure or formation is secured into the curb section of the catch basin inlet. These covers or gratings have the usual function and uses of permitting ready access to the catch basin proper. At the same time they permit the inflow of water while keeping relative large objects from the basin.

Having set forth my invention, I claim:

1. In a catch basin, an inlet member, and an outlet member joined thereto, said outlet member having inwardly extending flanges for supporting a filter box and sections supported on said flanges forming a filter box said filter box having a removable imperforate bottom and opposing removable perforated side walls.

2. In a catch basin, an inlet member, and an outlet member joined thereto, said outlet member having inwardly extending flanges for supporting a filter box and sections supported on said flanges forming a filter box, said filter box having a removable imperforate bottom and opposing removable perforated side walls, the front and rear walls of the filter box being integral parts of the basin member.

3. In a catch basin, an inlet member, and an outlet member temporarily connected together, said outlet member having a sewer inlet extension integral therewith, a downwardly extending baffle plate opposing said

sewer inlet, spaced at a distance therefrom, and flanged inwardly, a ledge on the opposing wall of said basin, a plate supported between said flange and ledge to form the bottom of a filter box, and perforated members supported by and spaced from the side walls of said outlet member and engaging said plate to complete the filter box.

4. In a catch basin, an outlet member and an inlet member, removably connected thereto, said outlet member having a sewer inlet extension integral therewith, a downwardly extending baffle plate opposing said sewer inlet and spaced therefrom, the lower end of said baffle being below the sewer inlet level to form a trap and flanged inwardly, a ledge on the opposing wall of said basin, a plate supported between said flange and ledge to form the bottom of a filter box and perforated members, supported by and spaced from the side walls of said outlet member and engaging said plate to complete the filter box.

5. In a catch basin, an inlet member, and an outlet member temporarily connected together, said outlet member having a sewer inlet extension integral therewith, a downwardly extending baffle plate opposing said sewer inlet, spaced at a distance therefrom, and flanged inwardly, a ledge on the opposing wall of said basin, a plate supported between said flange and ledge to form the bottom of a filter box, and perforated plates spaced from and bolted to the side walls of said outlet member and supporting the edges of said plate to complete the filter box structure.

6. In a catch basin, an inlet member, and an outlet member temporarily connected together, said outlet member having a sewer inlet extension integral therewith, a downwardly extending baffle plate opposing said sewer inlet, spaced at a distance therefrom, and flanged inwardly, a ledge on the opposing wall of said basin, a plate supported between said flange and ledge to form the bottom of a filter box, and perforated plates spaced from and bolted to the side walls of said outlet member and having flanges at their lower edges engaging the edges of said plate to support it and complete the filter box structure.

FRED KOCH.