

M. MULLOY, SR.
 CATCH BASIN FOR SEWERS.
 APPLICATION FILED OCT. 29, 1913.

1,107,096.

Patented Aug. 11, 1914.

Fig. 1.

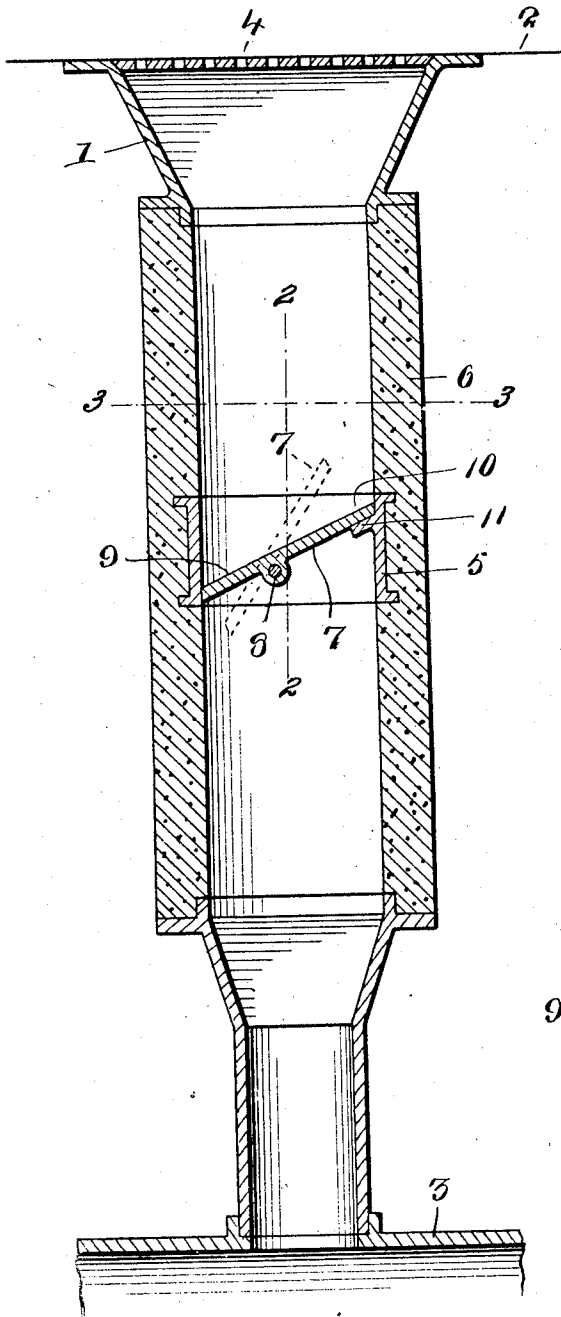


Fig. 2.

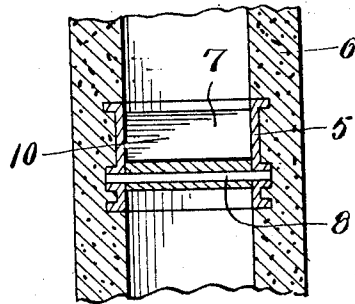
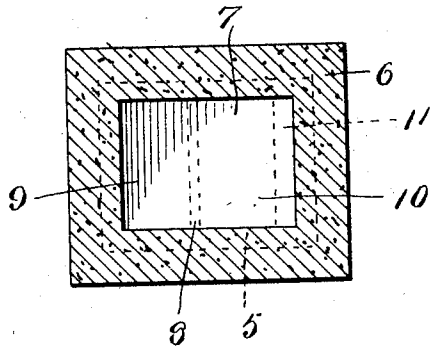


Fig. 3.



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Witnesses

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MARTIN MULLOY, SR., OF NASHVILLE, TENNESSEE.

CATCH-BASIN FOR SEWERS.

1,107,096.

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Application filed October 29, 1913. Serial No. 798,072.

To all whom it may concern:

Be it known that I, MARTIN MULLOY, Sr., a citizen of the United States, residing at Nashville, in the county of Davidson and State of Tennessee, have invented new and useful Improvements in Catch-Basins for Sewers, of which the following is a specification.

This invention relates to catch-basins for sewers, the object of the invention being to provide a device of this character which is simple, strong and durable in construction, and reliable and efficient in operation, adapted to prevent choking of the sewer by sand, stones or other bulky and heavy material, while permitting of the free drainage off of the water, and which embodies an automatic valve adapted to open when a predetermined amount of water accumulates in the basin to permit of the discharge thereof and to close upon the discharge of the water to prevent the outlet of foul air or gases.

A further object of the invention is to provide a catch-basin structure including a frame to support the valve and strengthen and reinforce the basin as a whole; and which is practically odorless and adapted to prevent the propagation of mosquitoes.

The invention consists of the features of construction, combination and arrangement of parts herein fully described and claimed, reference being had to the accompanying drawing in which:—

Figure 1 is a vertical longitudinal section through a catch-basin embodying my invention. Fig. 2 is a vertical transverse section on the line 2—2 of Fig. 1. Fig. 3 is a horizontal transverse section on the line 3—3 of Fig. 1.

In carrying my invention into practice, I provide a catch-basin 1, the walls of which are disposed in an inclined position for the flow by gravity of the water from the gutter or street surface 2 to the sewer or drain conduit 3, the top of the basin being provided with the usual screen or grating 4 to prevent passage of sand, stones and other bulky and heavy matter to the basin.

The basin proper is of suitable construction at its lower end for connection with the sewer 3 according to the diameter of the latter, and said basin proper comprises a metallic frame 5, embedded in and surrounded by an inclosing wall of concrete or cement 6, the frame and concrete wall thus

being bound together and mutually strengthening and reinforcing each other, to provide a catch-basin which possesses maximum durability.

At a point intermediate of its length the basin is provided with a trap valve 7. This valve is mounted on a rod or shaft 8 supported by the frame for pivotal movements to the open and closed position shown respectively in full and dotted lines in Fig. 1. The basin and valve are preferably of rectangular form, and the valve is pivoted at a point between its ends to provide arms 9 and 10. The arm 10 is adapted, when the valve is in closed position to rest against a ledge or shelf 11, and the arm 10 is weighted or the pivot of the valve placed off center, so that the arm 10 will be relatively heavier than the arm 9 and normally maintain the valve in closed position. When, however, a predetermined amount of water flows into the catch-basin, the weight of such body of water will overcome the weight of the arm 10 and, exerting its pressure on the arm 9, will swing the valve to open position, thus permitting the water to discharge, the valve thereafter returning automatically to closed position by gravity.

It will be evident from the foregoing description that a catch-basin of maximum strength and durability is provided, and that as the valve is normally held closed the emanation of foul odors from the sewer is prevented except in unnoticeable quantities at more or less infrequent intervals. Also it will be understood that as the body of water does not remain for any material length of time in the trap, any larvæ of insects, such as mosquitos, will be carried off into the sewer, thus preventing the propagation of insects which commonly breed upon the surface of a body of water.

I claim:—

A catch basin comprising a concrete body of rectangular form in cross section and having inlet and exhaust ends, a metallic frame piece disposed within the body between its inlet and exhaust ends, said frame piece comprising a rectangular shell embedded in the body and having outwardly projecting flanges at its upper and lower ends also embedded in the body, said shell being further provided at one side with an inclined stop and with apertured portions projecting at diametrically opposite sides and also embedded in the concrete, a pin ter-

minally fitted in said apertured portions
and extending across the frame, and a valve
plate pivotally supported by said pin and
having a weighted portion adapted to en-
5 gage said inclined stop, said valve being
normally arranged to close in an inclined
position.

In testimony whereof I affix my signature
in presence of two witnesses.

MARTIN MULLOY, Sr.

Witnesses:

N. D. OVERALL,
J. L. REND.