

(No Model.)

H. W. McDONALD.

CATCH BASIN INLET AND COVER FOR SEWERS.

No. 347,496.

Patented Aug. 17, 1886.

Fig. 1.

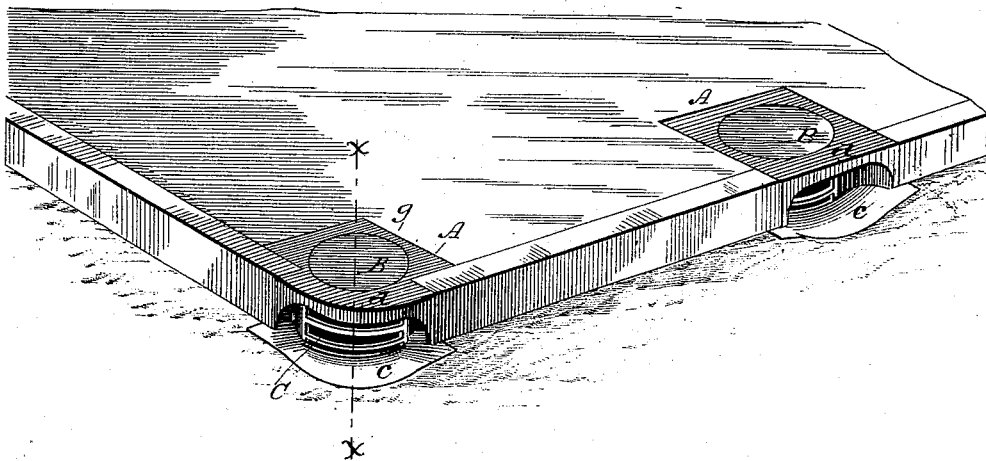


Fig. 2.

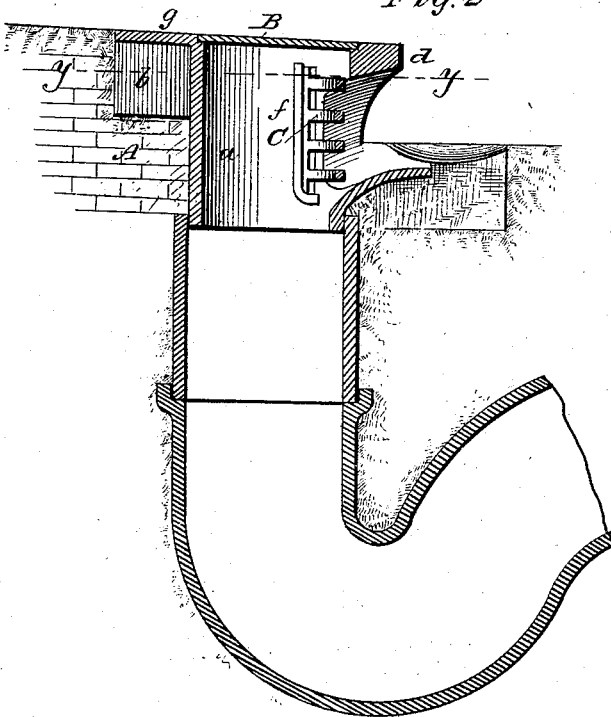
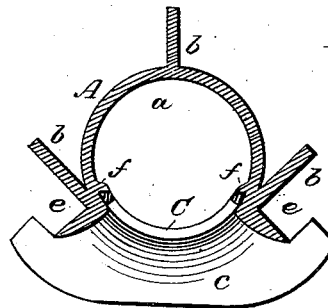


Fig. 3.



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CATCH-BASIN INLET AND COVER FOR SEWERS.

SPECIFICATION forming part of Letters Patent No. 347,496, dated August 17, 1886.

Application filed May 11, 1886. Serial No. 201,871. (No model.)

To all whom it may concern:

Be it known that I, HIRAM W. McDONALD, of Bucyrus, in the county of Crawford and State of Ohio, have invented a new and useful Improvement in Catch-Basin Inlets and Covers for Sewers, of which the following is a specification.

The object of my invention is to furnish a cheap practical catch-basin inlet and cover for use along the curb-line of streets for admitting water into sewers, which shall be so constructed as to prevent the ingress of large objects into the sewer, and adapted to conform to the sidewalk material, the slope or inclination of the sidewalk, and line of curb, and at the same time making a desirable finish and a secure anchorage in the wall upon which it rests, and also holding the curb in place, leaving the roadway entirely unobstructed and placing the improvement beyond injury from passing vehicles, and consequent danger and expense to the public.

Figure 1 is a perspective view of the two forms of catch-basin inlet as used at the corner and straight curb. Fig. 2 is a vertical section through line *x x*, extending down to the sewer-level, and Fig. 3 is a horizontal section through line *y y* of the basin-inlet.

A represents the catch-basin, which is in the nature of an iron casting, whose body portion *a* is chiefly of a cylindrical shape, and which has cast with it a top plate or flange, *g*, adapted in shape either to the corner of the street or straight line of the curb, as may be required, and having at its corners vertical brace flanges or wings *b*, connecting the top plate with the body of the cylinder, for the purpose of making a light but very strong casting, and for the purpose, also, of more firmly anchoring the metal basin in the bed of surrounding masonry. In the middle of the top plate is a circular opening or man-hole having a seat around its edge, upon which rests the detachable cover B. In the side of the basin is formed the receiving-mouth, which has a lower lip or flange, *c*, that is embedded in the gutter-stone, concrete or street bed, on a level with the same, and an upper lip, *d*, which is made heavier than the other parts, to withstand the abrasion from vehicle-wheels to which it may be exposed. The outer ends of the lower lip, *c*, are extended some distance

past the opening or mouth, so as to form a recess or holding-socket, *e*, Fig. 3, between said lip and the nearest vertical wings *b*, which firmly fixes and holds in place the ends of the curbstone. On the inner periphery of the cylinder *a*, upon opposite sides of the mouth, are vertical ribs *ff*, forming guideways, into which slides a grating, C, which is inserted through the opening in the top plate, and occupies a position opposite the mouth in the side of the basin, which grating prevents large objects from accidentally getting into the sewer.

In the formation of the upper plate or flange, *g*, on the top of the cylindrical body *a*, said plate is formed at a slight inclination, corresponding to the slope or fall of the sidewalk, so that the basin may be adjusted to its place upon a horizontal bearing and still have its upper plate correspond to the fall of the sidewalk. It will also be seen that the top plate is made with its sides at right angles to the curbstone, which facilitates the fitting or joining of the flagging of the sidewalk.

In arranging catch-basins for street-sewers, the usual plan is to construct large brick catches either in the sidewalk or gutter, and cover them with gratings or flagging. If placed in the gutter, they are unsightly and dangerous, and if on the sidewalk they are expensive.

My plan is to construct catches of sewer-pipe arranged vertically beneath the basin and coupling onto the cylindrical body portion *a* of the basin. Sewer-pipe, being vitrified and hard, will not absorb the gases of the sewer or filth of the street, but will be self-cleansing, by reason of the fact that the inflow of water acts upon a much smoother and smaller surface, and I use either a P-trap, where a trap is desired, or an elbow where none is required. Large catch-basins serve no better purpose than small ones, as water has its pressure according to elevation, and not according to quantity; and catch-basins as ordinarily constructed of brick retain filth in proportion to their size, which not only renders them obnoxious, but necessitates the expense of their cleansing, while by the adoption of sewer-pipe catches, to which my improvement is adapted, these objections are removed and the cost of the catch materials reduced. My improvement can, however, be used upon the brick

catch as well. In either case the wall or foundation is brought up level to within ten inches of the curb-grade, and the casting is then placed in position upon it, resting upon the 5 vertical flanges or wings *b*, and the wall is then filled in between said wings up to the subgrade of the sidewalk. This, with the curb and gutter stone, holds the casting firmly in place, and being cast in one piece and con- 10 forming to the fall of the sidewalk, as well as to the curb and gutter, it occupies but little space, is neat, safe, cheap, and durable.

In constructing the grate it is made with horizontal instead of vertical bars, the object 15 of which is to permit the water to carry floating debris down into the sewer without allowing it to lie across the bars and obstruct the inlet. I would remark, also, that the size of the basin need not be large enough to admit a 20 man for cleaning out the same; but this disagreeable duty is designed to be obviated by the use of an improved tool operated from the street-level.

Having thus described my invention, what 25 I claim as new is—

1. The catch-basin inlet composed of a cylindrical casting, *a*, having an opening in the top and a receiving-mouth in the side, a top plate or flange, *g*, and vertical wings *b*, connecting 30 the top plate to the cylindrical portion, substantially as described.

2. A catch-basin inlet having an opening in the top and a receiving-mouth in the side, with vertical guide-ribs formed at the inside edges of the mouth, and a detachable grate fitting 35 between said guide-ribs and occupying a position in front of the mouth, substantially as described.

3. The catch-basin inlet having vertical flanges or wings at the curb-connections, and 40 having also the lower lip of the receiving-mouth extended at the ends to form a locking-recess for the curbstone, substantially as shown and described.

4. The catch-basin inlet having a cylindrical 45 body, *a*, an inclined top plate, *g*, and vertical ribs connecting the same to the body, as and for the purpose described.

5. The combination, with the sewer-basin inlet, of a grate having horizontal bars placed 50 across the mouth of the inlet, substantially as and for the purpose described.

6. The catch-basin inlet having a cylindrical body, *a*, top plate, *g*, with vertical wings 55 connecting the two, a lateral receiving-mouth, and internal grate-guides, in combination with a removable grate and cover, substantially as and for the purpose described.

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