No. 791,078. PATENTED MAY 30, 1905.

S. C. CORSON.

SEWER INLET.

APPLICATION FILED JAN. 11, 1904.

Fig. 1.

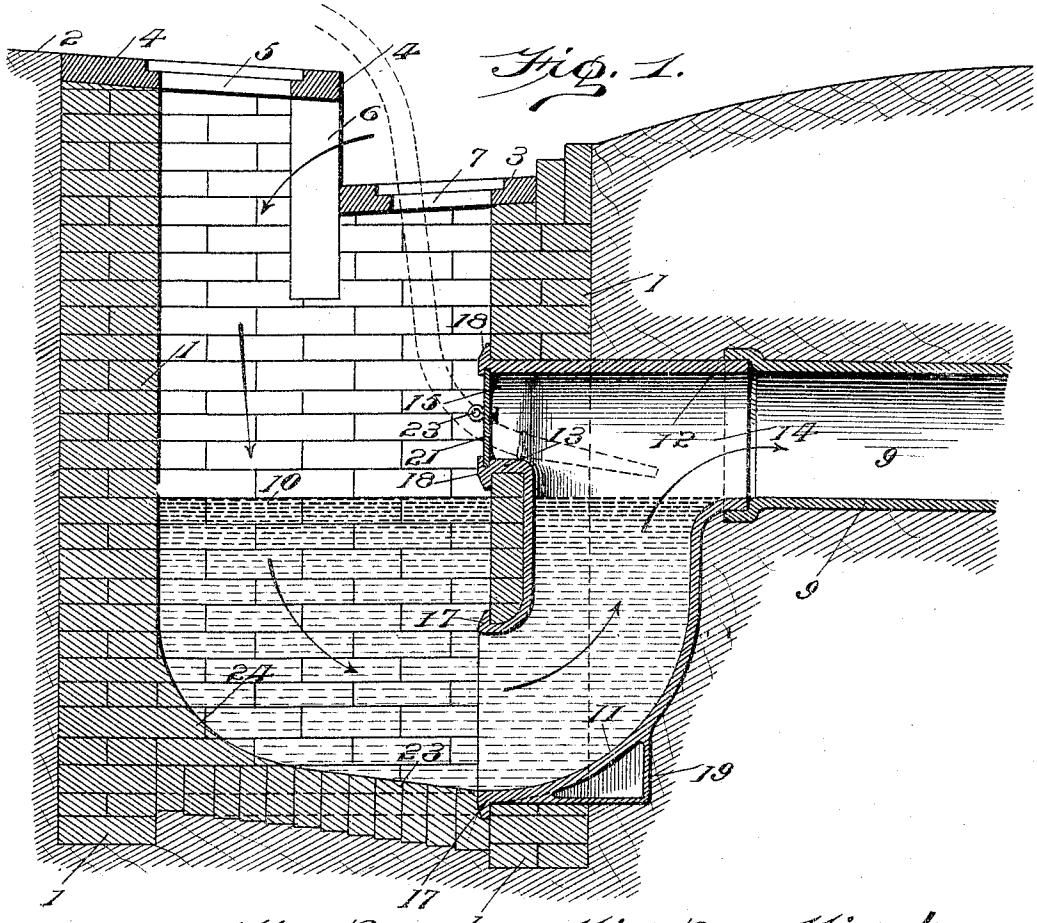


Fig. 2.

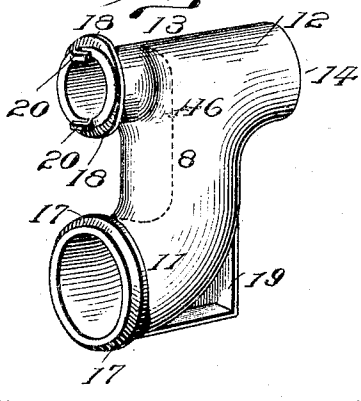


Fig. 3.

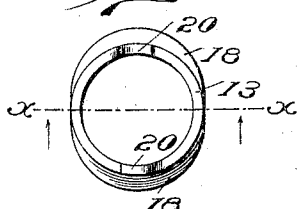


Fig. 4.

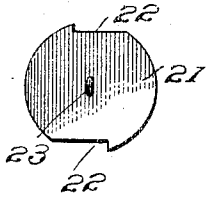
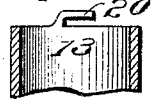


Fig. 5.



Witnesses

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No. 791,078. Patented May 30, 1905.

UNITED STATES PATENT OFFICE.

SIMON CAMERON CORSON, OF NORRISTOWN, PENNSYLVANIA.

SEWER-INLET.

SPECIFICATION forming part of Letters Patent No. 791,078, dated May 30, 1905.

Application filed June 11, 1904. Serial No. 212,128.

To all whom it may concern:

Be it known that I, SIMON CAMERON CORSON, a citizen of the United States, residing at Norristown, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Sewer-Inlets; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

This invention relates especially to that class of sewer-inlets having a water-seal trap and provision whereby access can be had to the lateral main.

The object of the present invention is to produce economy and efficiency in the construction of water-seal sewer-inlets by means of a novel form of trap-fitting designed to form the connection between the lateral main and the catch-basin and provide the necessary access to said main and which will unite with the masonry wall of the catch-basin so as to be firmly retained thereby against inward, outward, and lateral displacement.

The invention is designed mainly for use in connection with large lateral mains of storm-sewers and contemplates a material saving in cost of construction by laying the lateral main at no great depth below the surface of the ground, this being made possible by the trap-fitting of the invention, while at the same time access is given to the lateral at a point within the catch-basin that can be reached from the surface opening.

The invention also contemplates a self-cleaning feature in the construction of the basin in connection with the trap-fitting by which any deposit will be constantly directed to the trap-outlet and carried off by a current established in the basin and trap-fitting by the incoming flow of water.

The invention primarily consists in combining with a catch-basin and its lateral main, a trap-fitting adapted to bear inwardly against the wall of said basin from the exterior thereof, having branches communicating with the basin above and below the water-level thereof, respectively, and having wall-engaging flanges adapted to bear outwardly on said wall.

The invention also consists of certain other novel features in the arrangement and construction of parts, all as hereinafter described, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical section of a combined catch-basin and trap-fitting constructed in accordance with the invention. Fig. 2 is a perspective view of the trap-fitting; Fig. 3, an end view of the handhold branch of the fitting; Fig. 4, a face view of the lid for the handhold branch; and Fig. 5, a sectional view on the line X X of Fig. 3, showing the outer portion of the handhold branch with one of the lid-retaining lugs.

Referring to the drawings, 1 indicates the masonry walls of the catch-basin, preferably located partly underneath the sidewalk 2 and gutter 3 and provided with the usual sewer-top 4, having the top opening 5 and side opening 6 for the inflow of water from the gutter. In this connection access to the catch-basin is also had through an opening 7 in the gutter, which is supplied with a removable grating or cover (not shown) and is designed for a purpose to be referred to hereinafter.

The trap-fitting 8 forms the usual connection between the catch-basin and the lateral main 9 and is constructed in a single piece, preferably of cast-iron or vitrified clay, and is of such form as to be readily built into the outer masonry wall of the basin to insure a firm bearing against the masonry in all directions, as well as providing the means of access to the lateral above the normal water-line 10. This trap-fitting comprises a curved outlet branch 11, which extends from the bottom of the basin to the lateral main 9, and a connecting portion 12, having a branch 13, formed opposite the outlet 14 and above the normal water-level, the said branch 13 providing the necessary access to the lateral. By reason of the laying of the main 9 but slightly below the street-surface the opening or handhold 15 is brought in such close proximity to the gutter-opening 7 that it may be readily reached therefrom, so as to insert a flushing-hose (shown in dotted lines) without the ne-

cessity of entering the basin to make this insertion. The trap-fitting is disposed in the masonry wall so that the outer half projects therefrom, while the portion included in dotted line 16 on each side of the fitting finds ample bearing resistance against movement inwardly, the wall bearing on such area, while the flanges 17 of the branch 11 and the flanges 18 of the branch 13 in bearing against the inside of the wall furnish the resistance to any tendency of movement outward.

A shoe 19 is formed on the under side of the branch 11 to form a horizontal bearing thereof upon the foundation portion of the wall and assist in maintaining the fitting in position while the building-in work is proceeding.

From the foregoing it will be seen that the partial embedding of the trap-fitting within the basin-wall, together with the bearing offered by the flanges 17 and 18, makes it unnecessary to increase the size of wall or provide other support.

The end of the handhold branch 18 is provided on opposite sides with oppositely-arranged locking-lugs 20, which slightly overhang the lid-seat. The lid 21 is cut out or narrowed on opposite sides, as at 22, to admit the passage of the lugs 20 in the seating of the lid, whereupon the lid may be turned by its handle 33 to bring the widest portion thereof under the locking-lugs.

In connection with the curved inlet 11 of the trap the bottom 23 of the catch-basin is formed on a slight slope toward the bottom of the said inlet, so as to direct any sediment thereinto, while the corner opposite to the inlet is built up to present a curved face 24 for the purpose of deflecting the falling water and causing it to set up a current, as indicated by the arrows, which current will cause the sediment to be carried up through the trap-fitting and off through the lateral, thus obviating the element of cost incident to the cleaning of catch-basins by hand.

Having fully described the invention, what I claim, and desire to secure by Letters Patent, is—

1. In a sewer construction, the combination with a catch-basin and its main, of a fitting for connecting said main and basin, the same having an inlet branch extending through the wall of the basin below the water-level thereof, and a branch arranged opposite the main-opening and extending through the wall of the basin above the said water-level, said branches having flanges for engaging the inner face of the wall, substantially as and for the purpose set forth.

2. In a sewer construction, the combination with a catch-basin and its main, of a fitting for connecting said main and basin, adapted to be partially embedded in the wall of said basin from the exterior thereof, the same having an inlet branch extending through the wall of the basin below the water-level thereof, and a branch arranged opposite the main-opening and extending through the wall of the basin above the said water-level, said branches having flanges for engaging the inner face of the wall, substantially as and for the purpose set forth.

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

SIMON CAMERON CORSON.

Witnesses:

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