

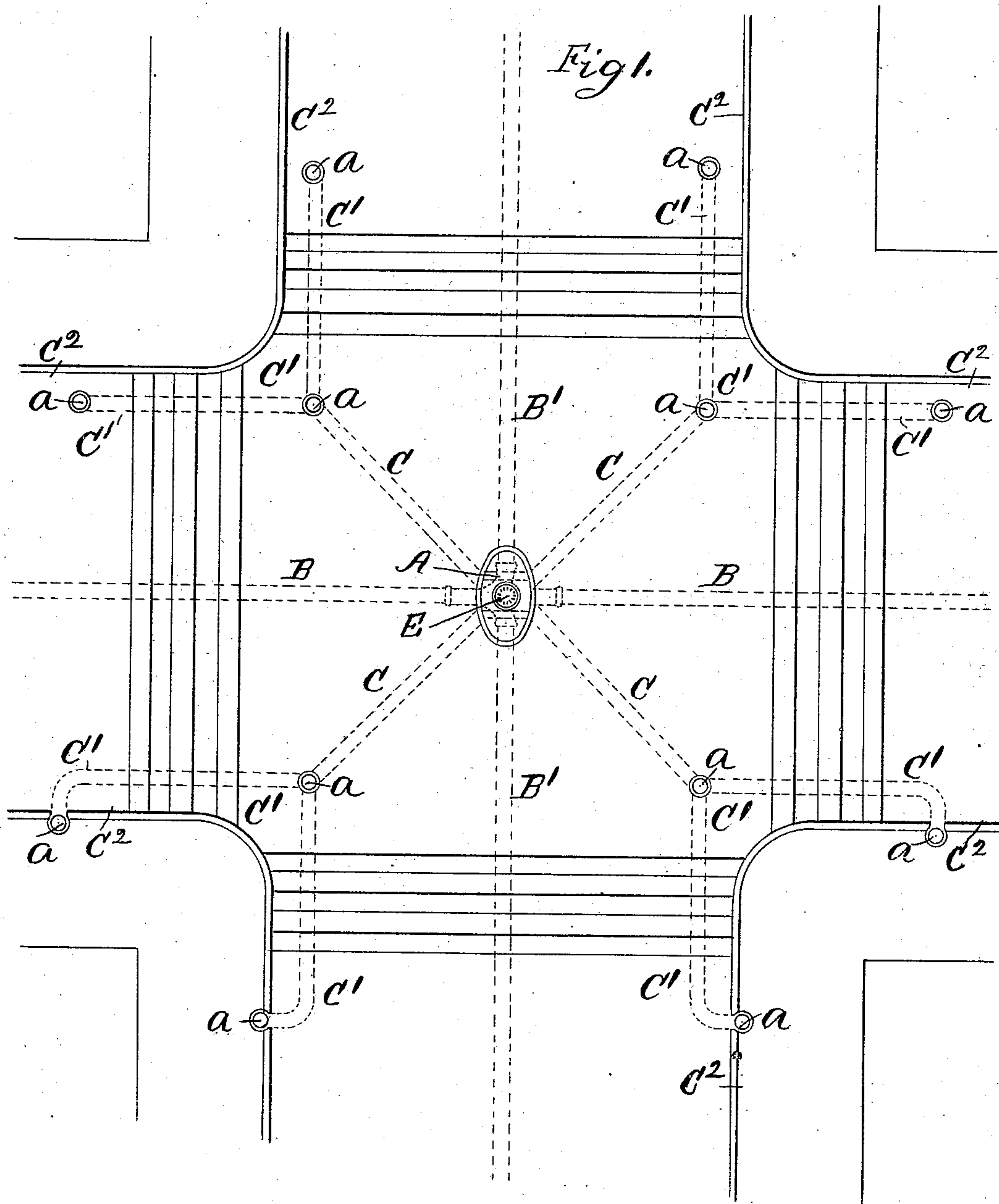
(No Model.)

2 Sheets—Sheet 1.

DE CLERMONT DUNLAP.
COMBINED MANHOLE AND CATCH BASIN.

No. 552,108.

Patented Dec. 31, 1895.



Witnesses:
E. C. Gaylord,
C. R. Shipley

Inventor:
Declermont Dunlap,
By G. B. Coupland & Co
Attorneys

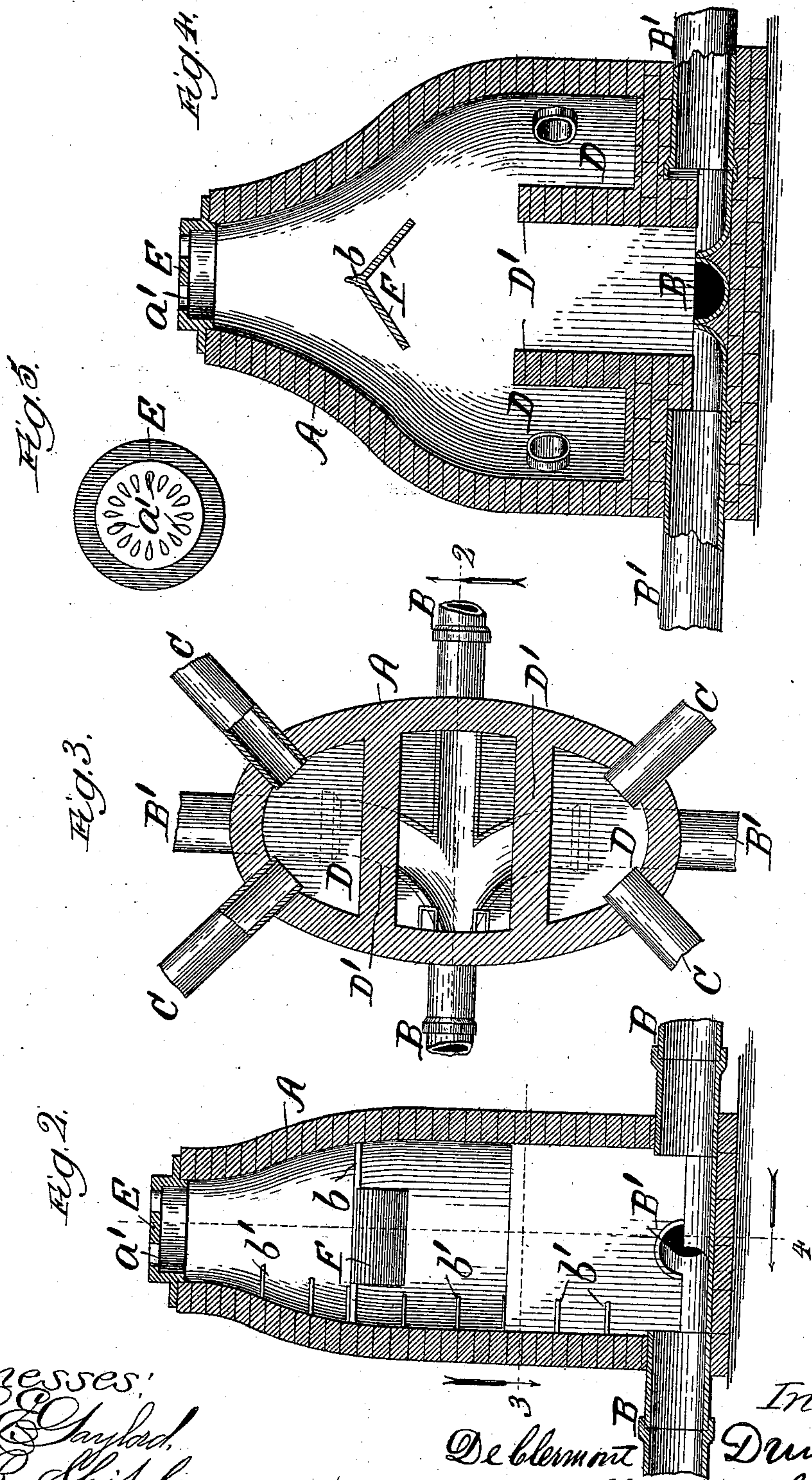
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Witnesses:
L. B. Coupland
E. R. Shipley

Inventor:
Deblermont Dunlap
By L. B. Coupland & Co
Attys

UNITED STATES PATENT OFFICE.

DE CLERMONT DUNLAP, OF CHICAGO, ILLINOIS.

COMBINED MANHOLE AND CATCH-BASIN.

SPECIFICATION forming part of Letters Patent No. 552,108, dated December 31, 1895.

Application filed August 16, 1893. Serial No. 483,309. (No model.)

To all whom it may concern:

Be it known that I, DE CLERMONT DUNLAP, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in a Combined Manhole and Catch-Basin, of which the following is a full, clear, and exact description, that will enable others to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to an improved system in the construction and arrangement of catch-basins and manholes for sewers, and has for its object to largely reduce the number of basins now required under the ordinary arrangements, and thereby also greatly reduce the cost of maintenance. By this system the noxious gases generated do not escape at or near the street-corners nor adjacent to the line of the curb, as is ordinarily the case.

In the drawings, Figure 1 is a diagrammatic plan illustrating the general arrangement; Fig. 2, a vertical transverse section on line 2, Fig. 3, looking in the direction indicated by the arrow; Fig. 3, a horizontal section on line 3, Fig. 2; Fig. 4, a vertical section on line 4, Fig. 2, and Fig. 5 a plan of the ventilated manhole-cover.

In Fig. 1 is shown the general arrangement of the system, A representing a catch-basin; B, a sewer-pipe or passage extending along under the street; B', the sewer under the street running at right angles to the first street; C, branch pipes leading into the catch-basin from the four corners formed by the intersection of the streets, and C' a system of branch pipes running at right angles along the line of the curb C².

As shown, the catch-basin is located at the center of the street-intersections equidistant from the four corners. The basins are of an oval contour in cross-section; but it is obvious that they may be of any desired form that practice or particular application may require.

The series of pipes C, receiving the street-drainage, discharge into pockets D, Fig. 4, formed in the lower part of the basin, the liquid contents overflowing the walls D' and escaping into the sewer, while the bulky mat-

ter, comprising the street-refuse and carried in with the water, is deposited and trapped and then removed in the usual manner.

It will be seen that as the sides of the pockets D rise above the mouths of pipes C gases which rise from the sewer will not enter said pipes, whether there be liquid present in the pockets or not, but will be conducted above the mouths of said pipes by the pockets.

The inlets *a* to the system of pipes leading from the street-corners are protected with the ordinary gratings.

The manhole-opening is closed by a cover E, provided with a series of ventilator-apertures *a'*. A wing-like deflector F is rigidly mounted on a rod *b*, which has its respective ends secured and supported in the inclosing walls. This deflector serves the purpose of throwing any bulky matter into the pockets D that may enter the basin through the apertures in the manhole-cover.

The ladder arrangement of steps *b'* affords convenient ingress and egress for workmen engaged in removing the accumulations in the pocket-receptacles or in making repairs.

By this system but one catch-basin is required in the same territory that now ordinarily requires four—one at each corner. The escape of poisonous unhealthy odors and gases at the street-corners is avoided and is reduced to a minimum at the center of the street.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a catch basin, the casing located in the street and having a central chamber communicating at the bottom with a sewer, side pockets separated by walls from the central chamber, and inlet pipes to said pockets below the tops of the walls, a ventilating cover above the central chamber and a deflecting plate below said cover arranged to guide matters which come through the cover to the pockets, all combined and relatively arranged substantially as described.

DE CLERMONT DUNLAP.

Witnesses:

L. M. FREEMAN,
J. B. DONALSON.