

(No Model.)

L. E. DINGLER.

DEVICE FOR PREVENTING THE CLOGGING OF CATCH BASINS.

No. 359,244.

Patented Mar. 15, 1887.

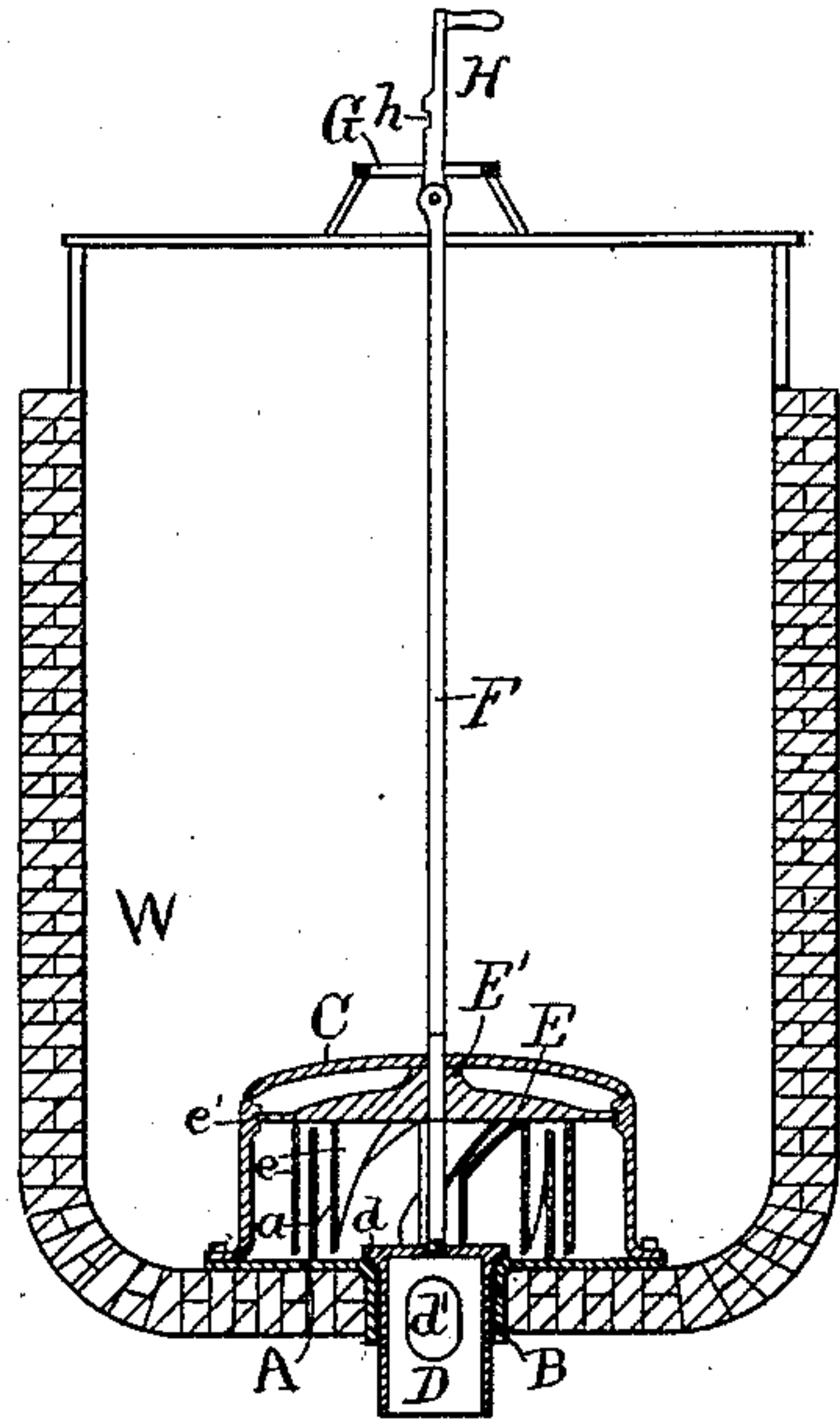


Fig. 1.

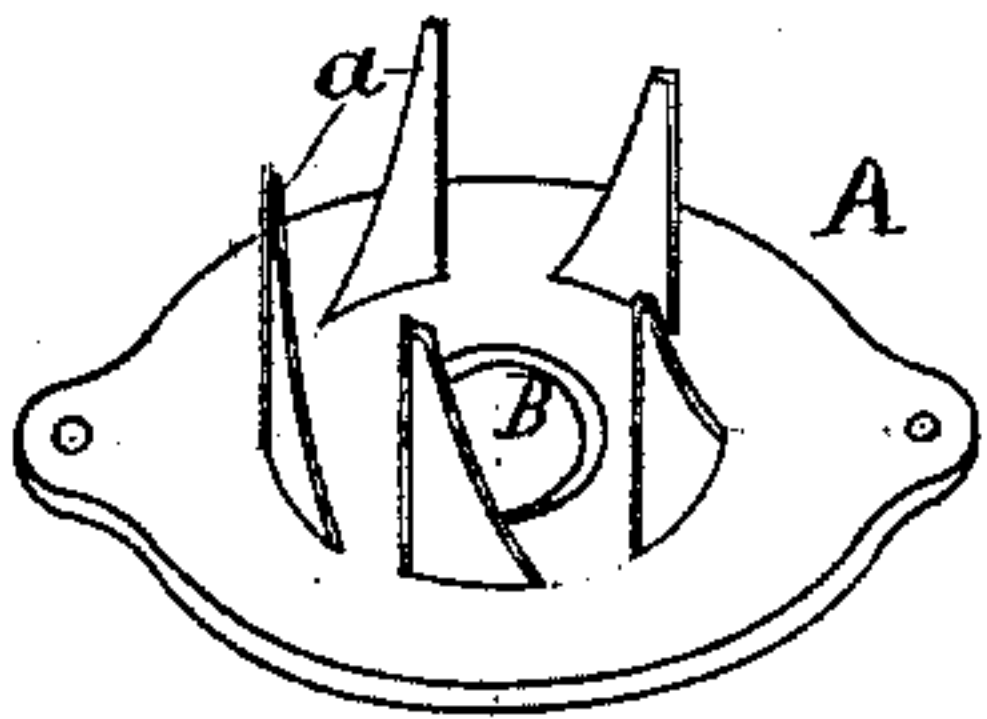


Fig. 2.

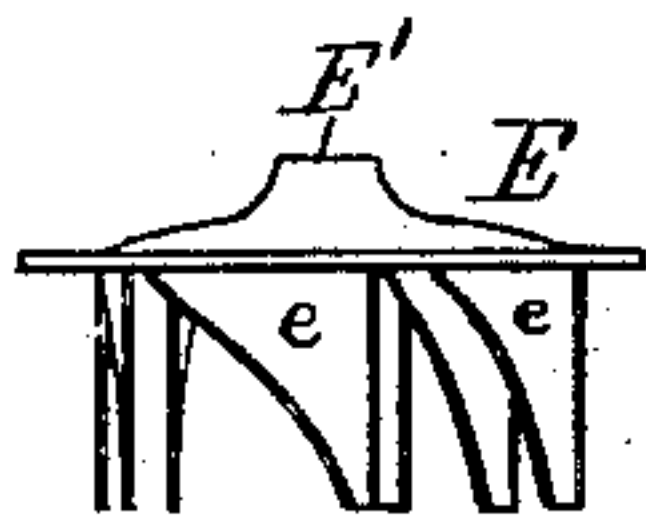


Fig. 3.

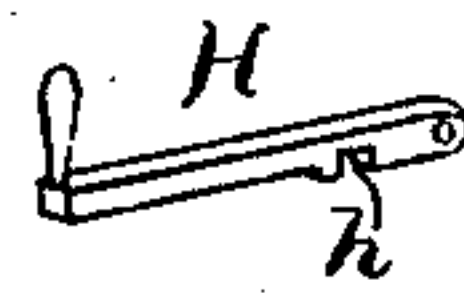


Fig. 5.

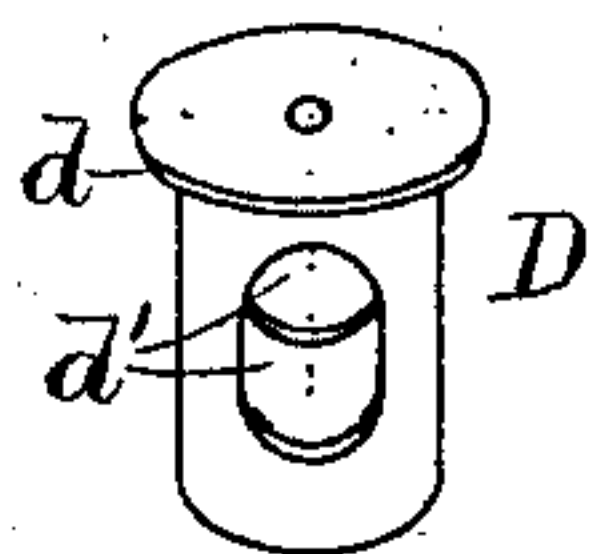


Fig. 4.

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# UNITED STATES PATENT OFFICE.

LOUIS E. DINGLER, OF CINCINNATI, OHIO.

## DEVICE FOR PREVENTING CLOGGING OF CATCH-BASINS.

SPECIFICATION forming part of Letters Patent No. 359,244, dated March 15, 1887.

Application filed November 6, 1886. Serial No. 218,207. (No model.)

*To all whom it may concern:*

Be it known that I, LOUIS E. DINGLER, a resident of the city of Cincinnati, Hamilton county, Ohio, have invented certain new and useful Improvements in Devices for Preventing Clogging of Catch-Basins, of which the following is a specification.

The various features of my invention and the advantages arising from their use, conjointly or otherwise, will be apparent from the following description.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical central section of my invention and of a catch-basin to which the invention is applied. Fig. 2 is a perspective view of the bottom plate and knives attached. Fig. 3 is an elevation of the upper plate having knives and which act in conjunction with the knives shown in Fig. 2. Fig. 4 is a perspective view of the valve for closing the catch-basin. Fig. 5 is a perspective view of the preferred form of handle for operating the knives and valve.

W indicates a catch-basin of the usual form, or of any suitable form. That portion of my device which forms the principal feature of my invention is located at the bottom portion of the catch-basin and controls the opening from the catch-basin into the sewer or other avenue or receptacle for carrying off the contents of said basin.

The lower plate, A, is provided with a downwardly-projecting cylinder, B, the line of junction of the two being preferably rounded off to form a tight seat for the curved flange *d* of the valve D. The hollow cylindrical valve D is closed at the top, open at the bottom, and provided with openings *d'* in the sides. A series of teeth, *a*, arranged in a circle, project upwardly from the plate A. These teeth are preferably pointed, but may be of any desired and suitable shape.

The plate E is provided with a circle, preferably with a double circle, of teeth, *e*, which project downwardly on either side of teeth *a*. A yoke, C, extends over the plate E and is attached to the plate A. The plate E is preferably provided with a bearing, E', projecting upwardly and bearing against the under surface of the yoke C. The rod F is rigidly attached to the top of the valve D and extends upwardly

through the plate E, its bearing E' and yoke C, to the top of the catch-basin. The lower part of the rod F, where it passes through the plate E and its bearing E', is angular, and the opening in the plate and bearing through which the rod passes is angular and fits the angularity of the rod, in order that the plate E may be rotated by the rod and the rod still be free to move up and down through the plate E and its bearing. Consequently when the rod F is rotated the plate E with the knives *e* will be rotated. The outer surface of the plate E preferably fits into and works in grooves *e'* in the yoke C, in order to prevent any oscillating motion of the plate in its revolution.

A preferred description of device, also of my invention, for operating the knives and valve is as follows: The ring G, mounted on feet, is placed on the top of the catch-basin. The handle H, pivoted to the top of the rod F, is provided on its under surface with the groove *h*. When the valve D is seated, the top of the rod F is below the ring G. To raise the valve D and allow the contents to escape from the basin, the handle H is forced down against the ring G, which acts as a lever, with ring G as a fulcrum, to raise the rod F, and with it the valve D. In so doing the groove *h* fits over the ring G. When the opening is stopped up, the handle H is used to rotate the rod F, and with it the plate E and valve D. As the plate E rotates the teeth *e* are carried past the teeth *a*, tearing and cutting any obstruction which might prevent the escape of the contents of the basin. The plate E and valve D may be rotated in either direction, the teeth being so constructed as to cut in either direction of rotation. The openings in the valve, the surfaces of which have a cutting-edge, also operate in connection with the inner row of teeth to cut any obstruction which might pass the teeth *a* and *e*.

My device is preferably located within the building, but may be located at the catch-basin in the street, or at any point between the building and the sewer.

The advantages of my device are apparent. It frequently happens that through carelessness or other cause obstructions—such as large wads of paper, &c.—are thrown into the basin to be carried off through the sewer or other



outlet. This very often stops the flow of water by obstructing the passage through the valve. My device is very useful in such case. By simply raising the rod F and turning the handle H in either direction all obstructing material is finely cut. The latter thus cut then passes off readily through the valve D into the sewer or other outlet.

What I claim as new and of my invention, and desire to secure by Letters Patent, is—

1. In a catch-basin, the combination of stationary plate A, having vertical teeth *a*, rotatable plate E, having a double row of vertical teeth *e*, and valve D, having openings *d'*, the surface of said openings having a cutting-edge, as and for the purposes set forth.

2. In a catch-basin, the combination of plate A, plate E, and yoke C, having recess *e'*, in which the plate E rotates, substantially as set forth.

3. In a catch-basin, the combination of valve D, rod F, handle H, having recess *h*, and ring G, substantially as set forth.

4. In a catch-basin, the valve D, having openings *d'*, the said openings having a cutting-surface, as and for the purposes set forth.

5. In a catch-basin, the combination of valve D, having openings *d'*, plates A and E, both having teeth or cutting projections, bearing E', having angular opening, and angular rod F, substantially as set forth.

6. In a catch-basin, the combination of plate A, having teeth *a*, plate E, having teeth *e*, yoke C, valve D, having openings *d'*, rod F, handle H, and ring G, substantially as and for the purposes specified.

LOUIS E. DINGLER.

Witnesses:

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