C. NAEHER.

Check-Valve for Sewers.

No. 199,307. Patented Jan. 15, 1878.

Fig. 1.

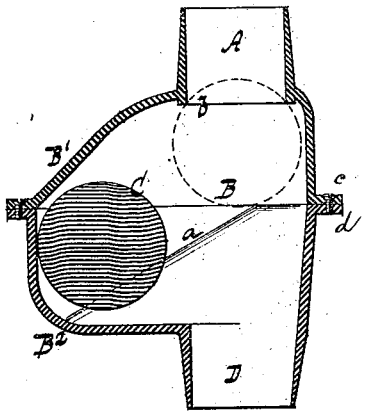
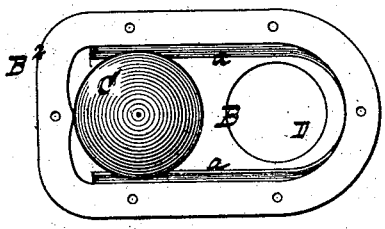


Fig. 2.



Witnesses.

Otto Hufland.

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UNITED STATES PATENT OFFICE.

CHARLES NAEHER, OF BROOKLYN, E. D., NEW YORK.

IMPROVEMENT IN CHECK-VALVES FOR SEWERS.

Specification forming part of Letters Patent No. **199,307**, dated January 15, 1878; application filed November 23, 1877.

To all whom it may concern:

Be it known that I, CHARLES NAEHER, of Brooklyn, E. D., New York, have invented certain new and useful Improvements in Traps for Preventing the Inflow of Backwater, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a vertical central section of a trap constructed according to my improvement. Fig. 2 is a plan or top view of the lower section thereof.

Similar letters of reference indicate like parts.

My invention relates to traps for preventing a backflow of water from sewers or other places without interfering with its outflow, and especially that class of traps constructed of a shell the interior of which constitutes a valve-chamber, and is provided with inclined valve-supporting ways, on which rests a buoyant valve. In this class of traps it is difficult to gain access to the valve-chamber either for the purpose of introducing the valve, for cleaning, or for any other purpose; and the object of my invention is to produce a trap in which the whole area of the valve-chamber can be laid bare.

To this end it consists in a shell, made in two parts or sections, each having a flange to receive screws or rivets, whereby they are detachably united together, and having, respectively, an inlet and outlet orifice, one section, moreover, being provided with inclined valve-supporting ways, on which rests a buoyant valve, and the other section being provided with a valve-seat, against which the valve is forced by the backwater, so as to arrest its progress.

In the drawing, the letters B^1 B^2 designate two sections of a shell, the interior of which forms the valve-chamber B of my trap, and which are provided with flanges *c d* on their adjoining edges. These flanges *c d* are screwed or riveted together, and by this means the said two sections can be readily united.

The section B^1 has an inlet orifice or pipe, A, while the section B^2 has an outlet orifice or pipe, D, and the sections are so constructed and arranged that these orifices or pipes are in a vertical position and in a corresponding vertical plane.

The letter *a* designates two inclined ways, located in the section B^2, and preferably cast therewith; and C is a buoyant valve of spherical form, resting on such way. *b* is a valve-seat, formed in the inner edge of the orifice A in the section B^1.

In the downward or outward flow of the water, the valve C rests on the ways *a*, and hence the free outflow is not thereby interfered with; but when the water flows back to the height or level of the valve-chamber B, the valve C is thereby forced up against its seat *b*, thus closing the orifice A, and preventing the water from passing beyond the valve-chamber.

The portion of the section B^1 of the valve-chamber located opposite the ways *a* is correspondingly inclined to said ways, to assist in guiding the valve.

When it is desired to clean or free the valve-chamber B of any sediment that may have collected therein, or either to introduce or remove the valve C, it is only necessary to remove the screws or rivets by which the flanges *c d* are held together, when the sections B^1 B^2 can be taken apart, and the whole area of each section laid bare.

What I claim is—

The combination, in a water-trap, of a shell, the interior of which forms a valve chamber, and which is made in two parts or sections, each having a flange to receive screws or rivets, whereby the said sections are detachably united together, inlet and outlet orifices respectively extending from said two sections, one above and the other below, both being in line with each other, inclined valve-supporting ways located in one section, a valve-seat formed in the other section, and a buoyant valve resting on said ways, the whole being adapted to operate substantially as described.

CHARLES NAEHER.

Witnesses:
W. HAUFF,
E. F. KASTENHUBER.