

(No Model.)

H. VOELMI.
FLOOD GATE.

No. 266,403.

Patented Oct. 24, 1882.

Fig. 1.

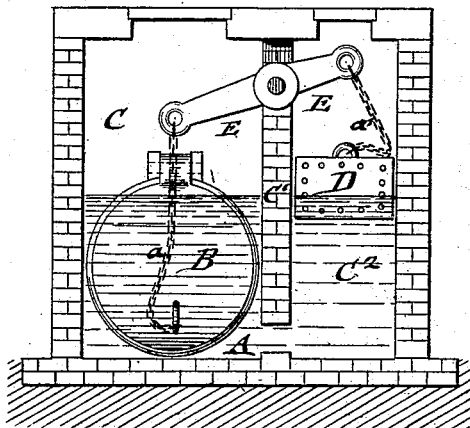


Fig. 2.

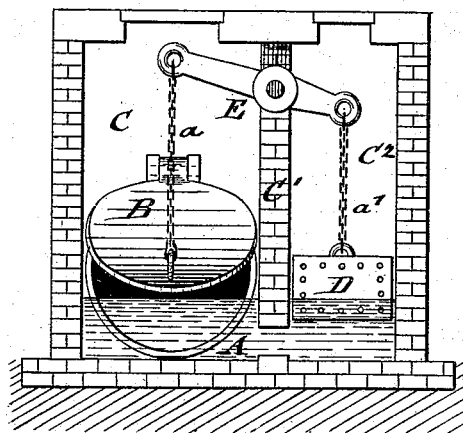
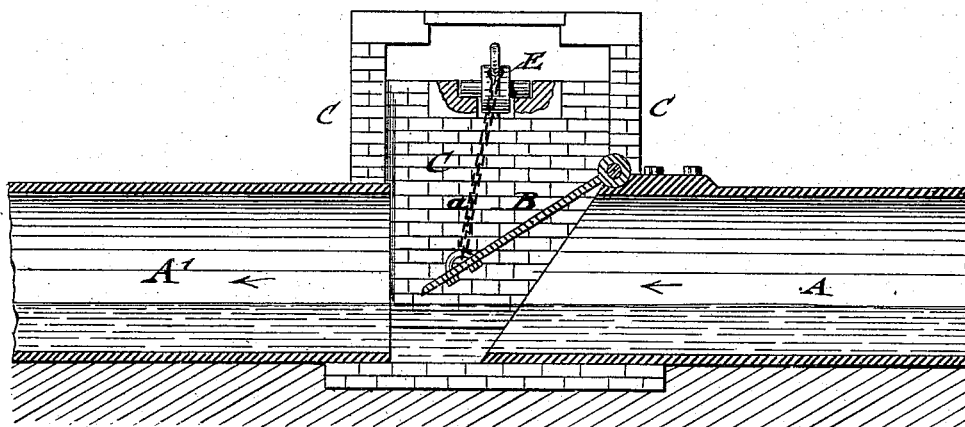


Fig. 3.



WITNESSES:

Joh. N. Rosenbaum.

Otto Busch

INVENTOR

Heinrich Voelmi

BY

Rud. Gropel

ATTORNEY

UNITED STATES PATENT OFFICE.

HEINRICH VOELMI, OF NEW YORK, N. Y.

FLOOD-GATE.

SPECIFICATION forming part of Letters Patent No. 266,403, dated October 24, 1882.

Application filed April 24, 1882. (No model.)

To all whom it may concern:

Be it known that I, HEINRICH VOELMI, of the city, county, and State of New York, have invented certain new and useful Improvements in Flood-Gates, of which the following is a specification.

This invention relates to an improved flood-gate for sewers and drains; and it consists of a pivoted valve connected by a fulcrumed lever and chains to a float that is in a compartment separated by a partition from the compartment with which the sewer-pipes communicate, said compartments communicating with each other by an opening at the lower part of the partition, and the said partition serving as a fulcrum for said lever.

In the accompanying drawings, Figures 1 and 2 represent vertical transverse sections of my improved flood-gate, the valve or gate shown respectively in closed and open position; and Fig. 3 is a vertical longitudinal section of the same.

Similar letters of reference indicate corresponding parts.

A in the drawings represents the end of a sewer or drain pipe, which is preferably made inclined, so as to form a seat for the gravity valve or gate B, which is pivoted to the upper part of the sewer-pipe A. The sewer-pipe is set into brick walls, which form an oblong compartment, C, to the opposite wall of which an outlet-pipe, A', is applied, so as to form communication with the interior of the compartment C. The compartment C is separated by a partition-wall, C', from a smaller adjoining compartment, C², within which is arranged a float, D, that is connected by a chain, a', to one end of a fulcrumed lever, E, the opposite end of which is connected by a chain, a, to a link or staple at the lower end of the valve B.

The float D is so constructed as to balance the valve or gate B. The smaller compartment C² communicates by an opening at the lower part of the partition C' with the larger compartment C, so that the water can readily rise or fall therein. Said partition serves as a fulcrum for the lever and forms a side chamber, in which the water rises and falls with the water in the pipe, carrying the float on its surface, whereby the chains and lever are actuated to open and close the valve. At high tide the sewer or pipe A A' is submerged, consequently the float raised and the valve closed tightly to its seat by its own weight and back-pressure of the water from flood-tide or other rise of water, as shown clearly in Fig. 1, while at low tide the lowering of the float opens the gate and allows the water in the sewer-pipe to pass off freely, as shown in Figs. 2 and 3.

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

An apparatus to prevent the flooding of sewer-pipes during flood-tide, consisting of sewer-pipes A A', two adjoining apartments, side by side, divided by a partition having an opening at its lower part for a free passage of water between the apartments, a float, D, which rides upon the surface of the water, a chain connecting the float to a lever fulcrumed transversely to the partition, and a valve hinged to the top of the sewer-pipe and connected by a chain to the lever, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

HEINRICH VOELMI.

Witnesses:

PAUL GOEPEL,
CARL KARP.