(No Model.)

H. B. EARECKSON.

GAS CHECK FOR WASTE PIPES.

No. 390,761. Patented Oct. 9, 1888.

Fig. 1.

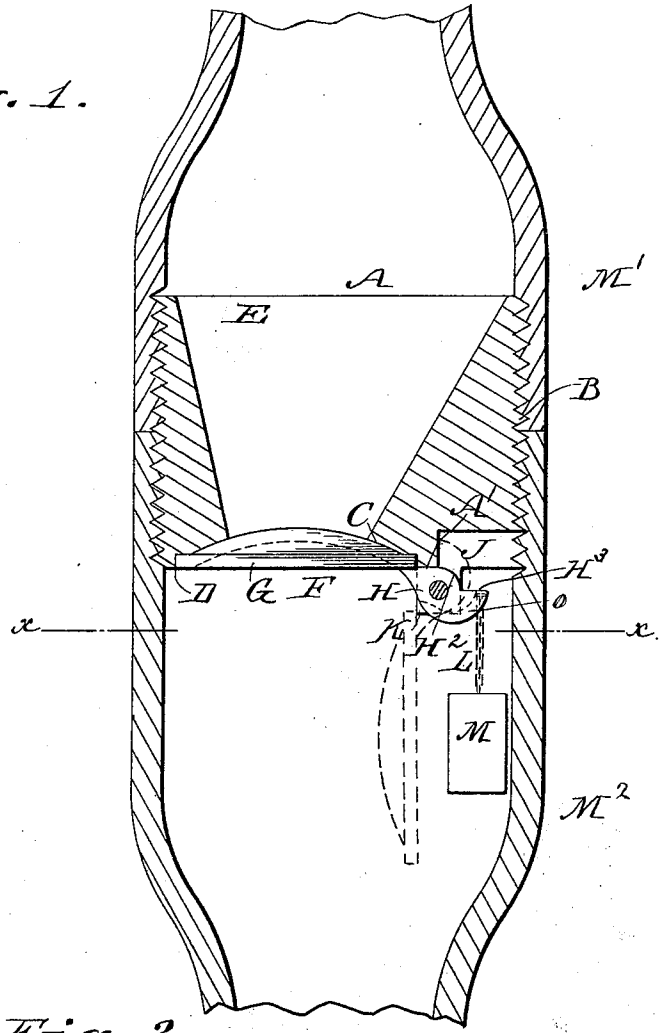
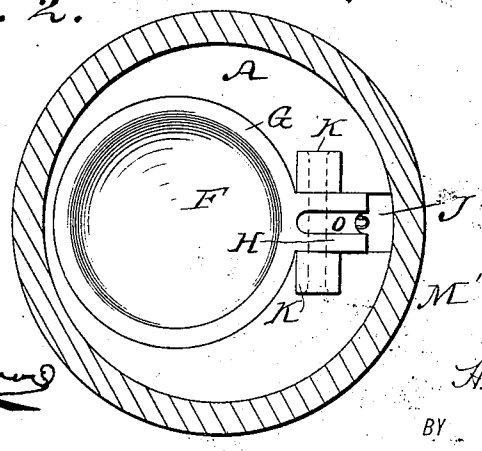


Fig. 2.



WITNESSES:

John W. Deemer

C. Sedgwick

INVENTOR.

H. B. Eareckson

BY Munn & Co

ATTORNEY.

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

HENRY B. EARECKSON, OF NEW YORK, N. Y.

GAS-CHECK FOR WASTE-PIPES.

SPECIFICATION forming part of Letters Patent No. 390,761, dated October 9, 1888.

Application filed April 24, 1888. Serial No. 271,720½. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. EARECKSON, of the city, county, and State of New York, have invented a new and useful Improvement in Gas-Checks for Waste-Pipes, of which the following is a full, clear, and exact description.

This invention relates to an improvement in that class of appliances used on the waste-pipes of wash-basins and other water-fixtures to permit the discharge of the waste-water, while automatically preventing the backflow of sewer-gas, in which a self-closing flap-valve is arranged to be opened by the pressure of the waste water to allow the same to pass, and to be closed tightly upon its seat by the pressure of gas from the drain.

The object of my improvement is to secure greater simplicity and efficiency than has been heretofore generally attained in appliances of the kind; and the invention consists of a novel construction of gas-check, substantially as hereinafter fully described, and as distinctly claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional elevation of a gas-check constructed in accordance with my invention, and Fig. 2 is an inverted sectional plan view of the said gas-check on the line *x x* of Fig. 1.

In constructing the gas-check thus illustrated, a cylindrical box, A, is formed with an external thread, B, extending its entire length, with an eccentric circular concave valve-seat, C, in its bottom, opening downward and surrounded by an annular step, D, and with a funnel-shaped basin, E, in its top, opening downward through the center of the valve-seat C.

A circular flap-valve, F, having a hollow spherical body fitted accurately to the seat C, and a continuous annular flange, G, likewise adapted to the annular step D, is formed on one side with a hinge lug, H, projecting downward and outward from the flange G, and said hinge-lug is pivoted to swing vertically in a downward and outward opening recess, J, which is formed in an extension, K, of the box A, threaded externally to correspond therewith, and projecting downward therefrom outside the valve-seat C.

The recess J is extended upward in the box above the valve-pivot, and the hinge-lug H is formed with a flat top adapted to set up evenly against the bottom shoulder, A′, of the box at the inner side of the recess J when the valve is closed, a segmental corner, H^2, adapted to work closely against the shoulder A′ when the valve swings on its pivot, and with an outward-projecting arm, H^3, which is permitted to swing upward into the recess J, against the inner wall of the same, when the valve is opened.

From the outer end of the lug-arm H^3 is suspended, by a chain, L, a weight, M, of sufficient gravity to overbalance the valve and hold the same normally closed against back-pressure, while permitting it to open and relieve an accumulation of water therefrom, and the bottom of the arm H^3, which is curved so as to work in close proximity to the outside of the recess K, is formed with a central longitudinal groove, O, to receive the chain L when the arm swings upward.

On opposite ends of the threaded box A are screwed short pipe-sections M′ M^2, which may be contracted at their outer ends and threaded for connection with the respective adjoining parts of a waste-pipe.

With this construction the valve will normally be tightly closed against back-pressure of gas, while yielding readily to water-pressure from above, as described.

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

1. In a gas-check for waste-pipes, the combination, with the body A, provided on the under side of its bottom with a valve-seat, C, having the annular step D, and the downward-projecting and recessed extension K, of the valve F, having a spherical body fitting the valve-seat, and the flange G, fitting the annular step, and provided with the lug H, pivoted in the recess of the said lug, and having the projecting arm H^3, the weight M, and the chain L, connected to the said arm and weight, substantially as described.

2. A gas-check for waste-pipes, consisting of the externally-threaded box A, having a funnel-shaped opening, E, through the same, the valve-seat C, the annular step D, surrounding the valve-seat, the downward-projecting extension K, and the recess J, the valve F, provided with the flange G, and the lug H, having the projecting and grooved arm H^3, the weight M, and the chain L, connected to the weight and arm, the said box being adapted to be screwed into the ends of pipe-sections, substantially as herein shown and described.

HENRY B. EARECKSON.

Witnesses:
JOHN OVERBECK,
JAMES HAYDEN.