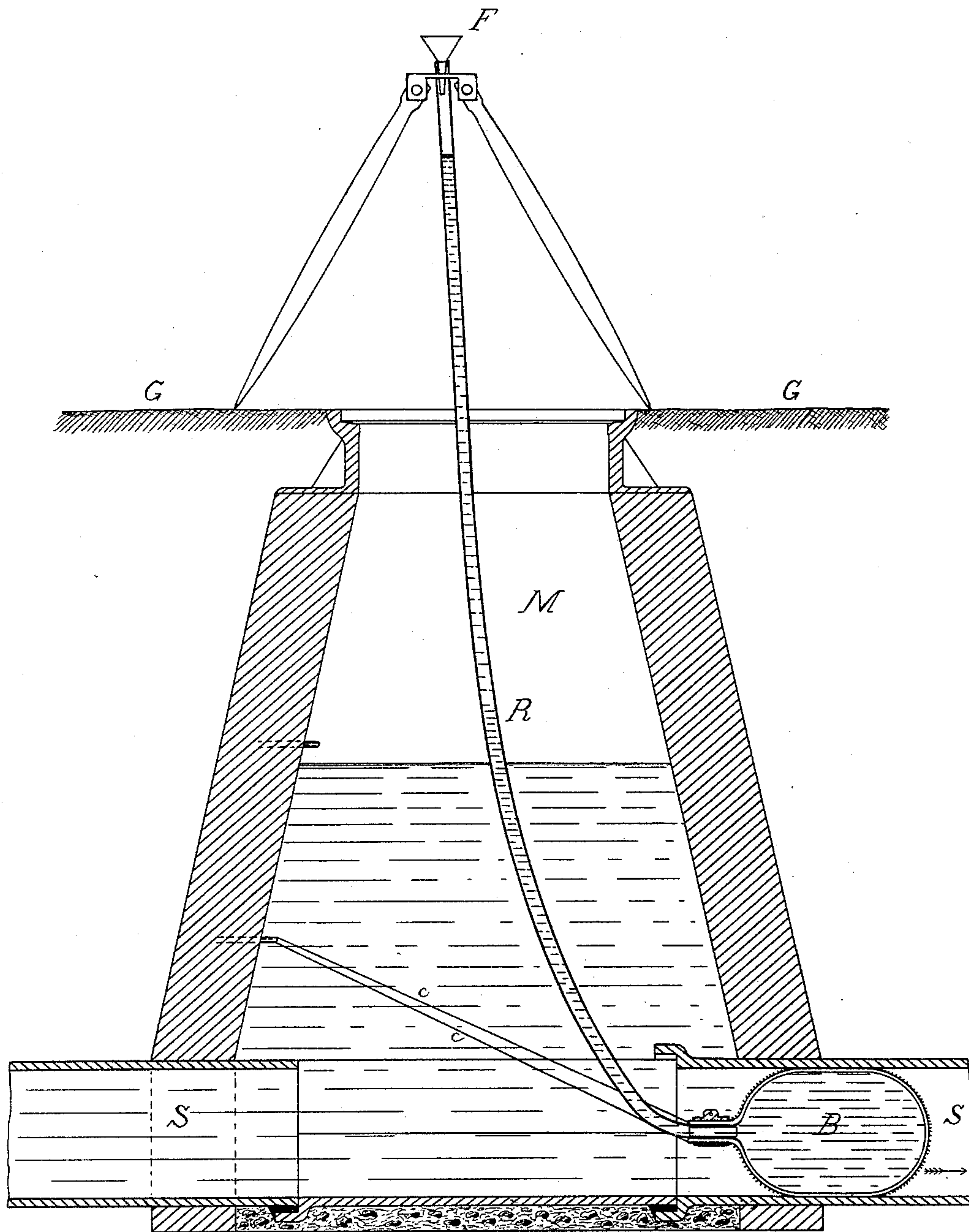


(No Model.)

G. E. WARING, Jr.
SEWER PLUG.

No. 433,155.

Patented July 29, 1890.



Witnesses:

S. C. Purlough
Wm. H. Hume

Inventor:

G. E. Waring, Jr.

UNITED STATES PATENT OFFICE.

GEORGE E. WARING, JR., OF NEWPORT, RHODE ISLAND, ASSIGNOR TO THE
DRAINAGE CONSTRUCTION COMPANY, OF BOSTON, MASSACHUSETTS.

SEWER-PLUG.

SPECIFICATION forming part of Letters Patent No. 433,155, dated July 29, 1890.

Application filed July 23, 1888. Serial No. 280,792. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. WARING, Jr., of the city and county of Newport, in the State of Rhode Island, have made a new and
5 useful Improvement in Sewer-Plugs, of which the following is such a clear and exact description as will enable others skilled in the art to which it most nearly appertains to make and use the same, when taken in connection
10 with the accompanying drawing, which shows a vertical section through the sewer S S and man-hole M to the surface of the ground G G.

B is an impervious bag, preferably oblong, and (when distended) a little larger than the
15 interior of the sewer that is to be plugged.

c c are cords showing one manner of holding the bag in place by attachment to the ladder-step.

R is a pipe, preferably flexible, attached to
20 the mouth of the bag B, and carried to or above the surface of the ground.

F is a funnel for filling the bag and pipe.

I close and open the sewer-pipe at pleasure by introducing a flexible bag at the proper
25 point, and bringing its flexible pipe to a point higher than that to which it may be desired to raise the accumulated sewage generally to or above the surface of the ground. I then fill the bag and its inlet-pipe with water, the

hydrostatic pressure of the higher column of 30
water in the inlet-pipe forcing the side of the bag against the walls of the sewer with a greater force than that of the head of accumulated sewage in its tendency to separate them. When I desire to release the plug and
35 allow the accumulated sewage to flow, I drop the inlet-pipe into the sewage, its mouth being open, when the pressure of the sewage on the outside of the bag causes it to collapse, its contents escaping through the inlet-pipe. 40

What I claim as new, and desire to secure by Letters Patent of the United States, is—

The herein-described method of closing and opening a sewer-pipe by a flexible bag, which consists in lowering the bag into proper posi- 45
tion, filling it and its inlet-pipe sufficiently with liquid, and elevating the inlet-pipe and its contained liquid above the level of the liquid in the sewer or man-hole for the purpose of expanding the bag against the walls 50
of the sewer, or lowering the said pipe and its contained water to a lower level for the purpose of allowing the bag to collapse, as and for the purpose described.

GEO. E. WARING, JR.

Witnesses:

L. E. BURLEIGH,
ROBERT FRANCE.