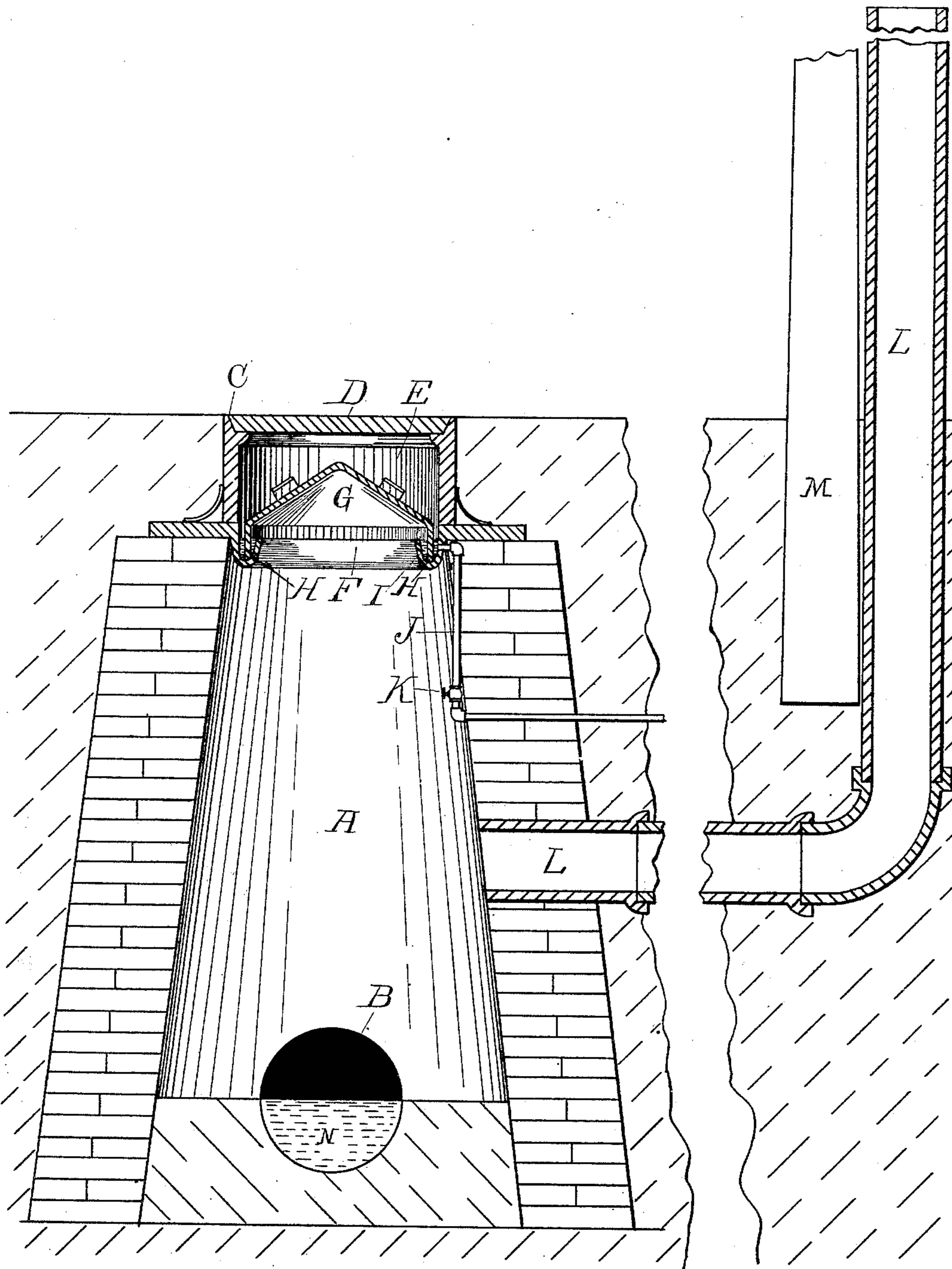


(No Model.)

F. WALKER.
SEWER MANHOLE.

No. 450,878.

Patented Apr. 21, 1891.



Witnesses
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UNITED STATES PATENT OFFICE.

FRANK WALKER, OF LOS ANGELES, CALIFORNIA.

SEWER MAN-HOLE.

SPECIFICATION forming part of Letters Patent No. 450,878, dated April 21, 1891.

Application filed January 7, 1890. Serial No. 336,194. (No model.)

To all whom it may concern:

Be it known that I, FRANK WALKER, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improvement in Sewer Man-Holes, of which the following is a specification.

Sewer man-holes as heretofore constructed have been objectionable, in that the odors therefrom have been allowed to escape into the street at the surface of the ground. It has been attempted to modify the effects of this by covering the man-hole with a lid, over which charcoal or earth is placed. This is not effective, however, to prevent the escape of all the effluvia, and that which escapes escapes, as before, at the level of the street. By my invention I avoid these difficulties by hermetically sealing the mouth of the man-hole and providing the man-hole with a ventilator-pipe extending therefrom to the side of the street and to an elevated position, where it opens to discharge the effluvia.

The special feature of my invention is the means I provide for the effectual and continuous sealing of the covers of the sewer man-holes. This feature consists of the combination of an annular trough mounted on and projecting inward from the inside of the neck of the man-hole below the mouth thereof, a cover provided with a downwardly-projecting annular flange seated in such trough, a body of liquid in the trough, and means for continually supplying the trough with liquid.

The accompanying drawing illustrates my invention.

A represents the man-hole, and B the sewer opening therefrom.

C is the mouth of the man-hole.

D is the lid closing the mouth.

E is the neck of the man-hole.

F is the annular trough projecting inward from the inside of the neck below the mouth.

G is a cover provided with the downwardly-projecting annular flange H, which is seated in the body of water I, forming the seal.

J is a water-pipe provided with a cock K, by means of which a regulated quantity of

water may be introduced into the trough to form the seal. The top of cover G is conical, and the inner wall of trough F slants inward, so that where there is a sufficient flow of liquid within the sewer the vapor therefrom which condenses on the cover G will flow down the conical top and annular flange of the cover into the trough, where it is collected to supply the evaporation. In case there is too little moisture in the sewer (as may occur near the upper end of a sewer) to cause sufficient moisture to collect to form the seal in trough F, the cock K is set to allow the flow of sufficient water to continually supply the seal.

Where my invention is used in connection with sewers in which there is a continuous flow, the condensation collected by the conical cover may be wholly depended upon to supply the seal, except when the trough is first provided with water. This can be done by buckets, if desired, and the pipe J dispensed with.

L is a ventilator-tube leading from the body of the man-hole to the side of the street, where it is led up beside a telegraph-pole or other support M to discharge at an elevation above the ground.

N represents the body of evaporating liquid flowing in the sewer.

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

The combination of the sewer man-hole, the annular trough mounted on and projecting inward from the inside of the neck of the man-hole below the mouth thereof, a cover provided with a conical top and a downwardly-projecting annular flange seated in such trough, a body of liquid in the trough, and a body of evaporating liquid in the sewer, the openings for the entrance and exit of the sewage and for ventilation being below the said cover, as set forth.

FRANK WALKER.

Witnesses:

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