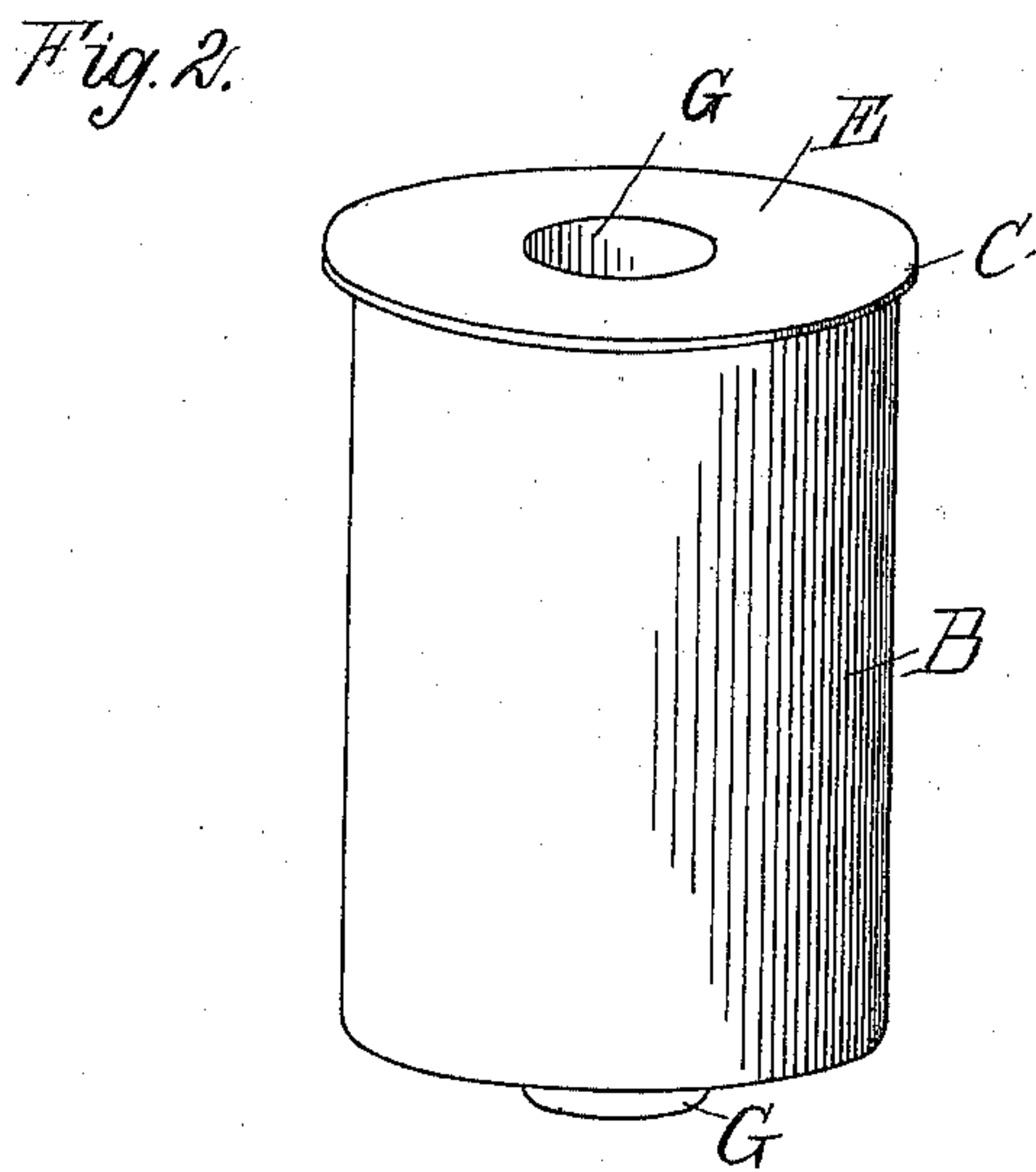
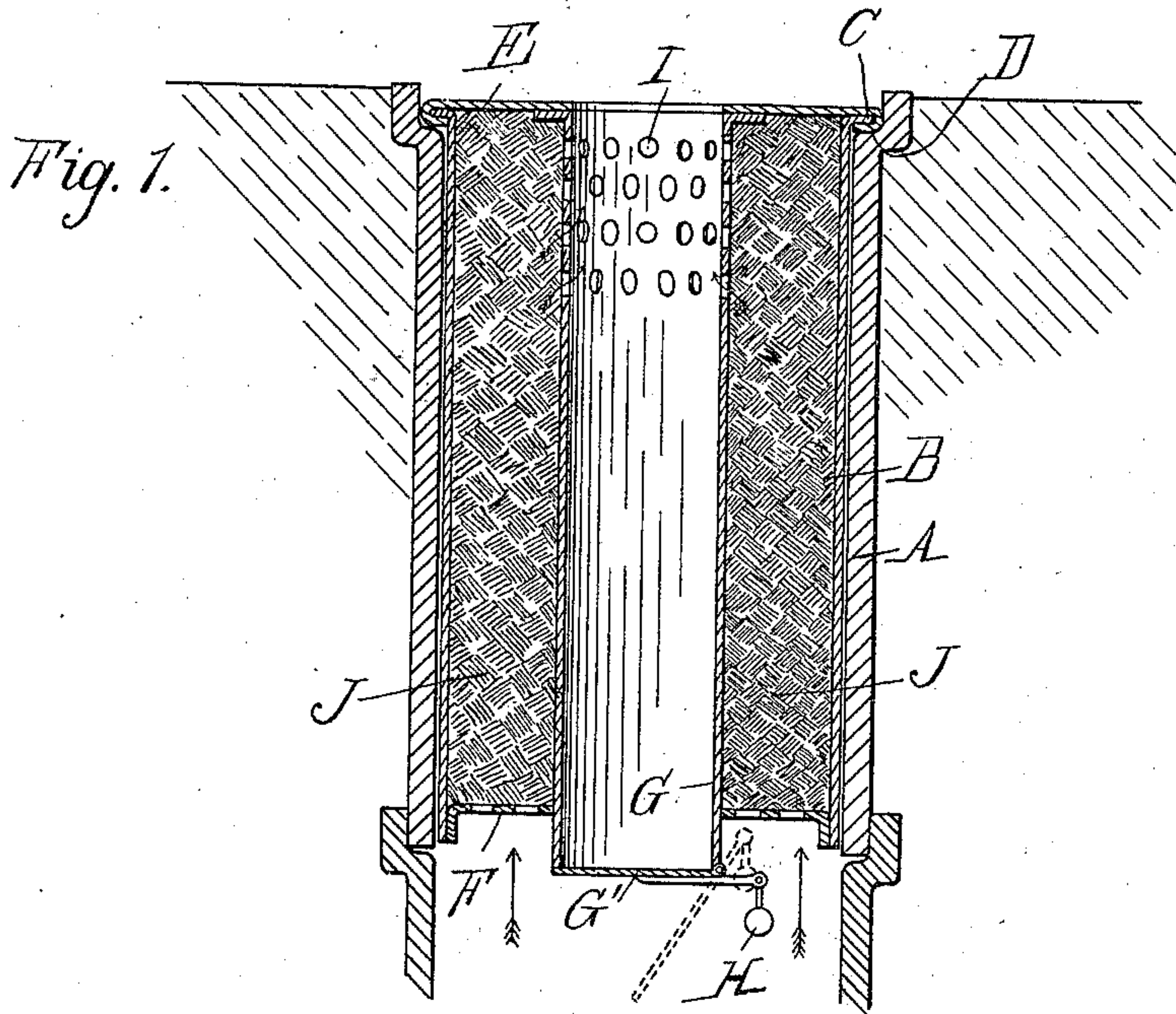


(No Model.)

J. ELLIS.
SEWER TRAP.

No. 561,381.

Patented June 2, 1896.



Witnesses:

O. F. Barthel,
M. O. Ogherty

Inventor:

Joseph Ellis,
By W. L. Sprague & Co.
Attorneys.

UNITED STATES PATENT OFFICE.

JOSEPH ELLIS, OF DETROIT, MICHIGAN.

SEWER-TRAP.

SPECIFICATION forming part of Letters Patent No. 561,381, dated June 2, 1896.

Application filed July 15, 1896. Serial No. 555,971. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH ELLIS, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Sewer-Traps, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the construction of a disinfectant receptacle or trap; and it consists particularly in the construction of a device embodying a flat receptacle controlled by a valve adapted to discharge into the sewer-pipe and the surrounding disinfectant-chamber communicating with the outside air and with the interior of a sewer-pipe in such a manner that the air or gases from the sewer may pass freely therefrom at all times, the receptacle being provided with a suitable disinfectant material to purify the air and gases which pass therethrough, all as more fully hereinafter described.

In the drawings, Figure 1 is a vertical central longitudinal section of my improved device, showing it as applied in an ordinary sewer-crock. Fig. 2 is a detached perspective view of the device.

A represents a section of sewer-crock or sewer-pipe of known and usual construction. In this I secure a cylindrical vessel B, the top of which is preferably provided with an outwardly-extending flange C, which rests on the shoulder D of the crock and supports the device in position. E is the top of this vessel, and F is the bottom, the latter being perforated, either of sheet metal or wire-cloth.

G is an inner tube secured concentrically within the casing B, alining with apertures in the top and bottom thereof, and preferably extends a slight distance below the bottom F of the casing B. Its lower end is provided with a hinged valve G', having a counterweight H for automatically closing it near the top. This tube is provided with a series of apertures I.

J is a mass of pulverulent material, preferably charcoal charged with any suitable dis-

infectant, such as permanganate of potash, sulfate of iron, &c.

The parts being thus constructed and arranged, it is evident that fluids may be poured into the top of the tube G, and when they have accumulated to a sufficient extent to overcome the action of the weight H they will open the valve and permit the discharge thereof into the sewer. At all other times the sewer will be closed.

At all times there will be a clear escape for the air and gases in the sewer through the perforated bottom F into the annular disinfectant-chamber and thence out through the perforations I, so that while this air and gas has a free passage it must pass through the disinfectant material and be purified.

What I claim as my invention is—

1. The combination with a sewer-trap formed with a shoulder at its top, of an annular casing therein, an annular top secured to said casing and forming with the casing a shoulder adapted to engage said shoulder in the sewer-pipe, a disinfectant in said casing, perforations in the bottom of the casing, perforations in its inner wall, and a valve for its central opening, substantially as described.

2. The combination of a receptacle fitting in the sewer-pipe, having annular top and bottom, the sewer-tube G concentrically arranged within the receptacle apertured at its top and secured to the top and bottom of the casing to form a surrounding disinfecting-chamber, a perforated bottom on the receptacle, pulverulent material such as charcoal in the disinfecting-chamber charged with a disinfectant as described, the extension of the sewer-tube below the casing and the weighted valve controlling the lower end thereof, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH ELLIS.

Witnesses:

M. B. O'DOHERTY,
O. F. BARTHEL.