

No. 685,268.

Patented Oct. 29, 1901.

H. H. FREEDMAN.
FUMIGATING APPARATUS.

(Application filed Feb. 4, 1901.)

(No Model.)

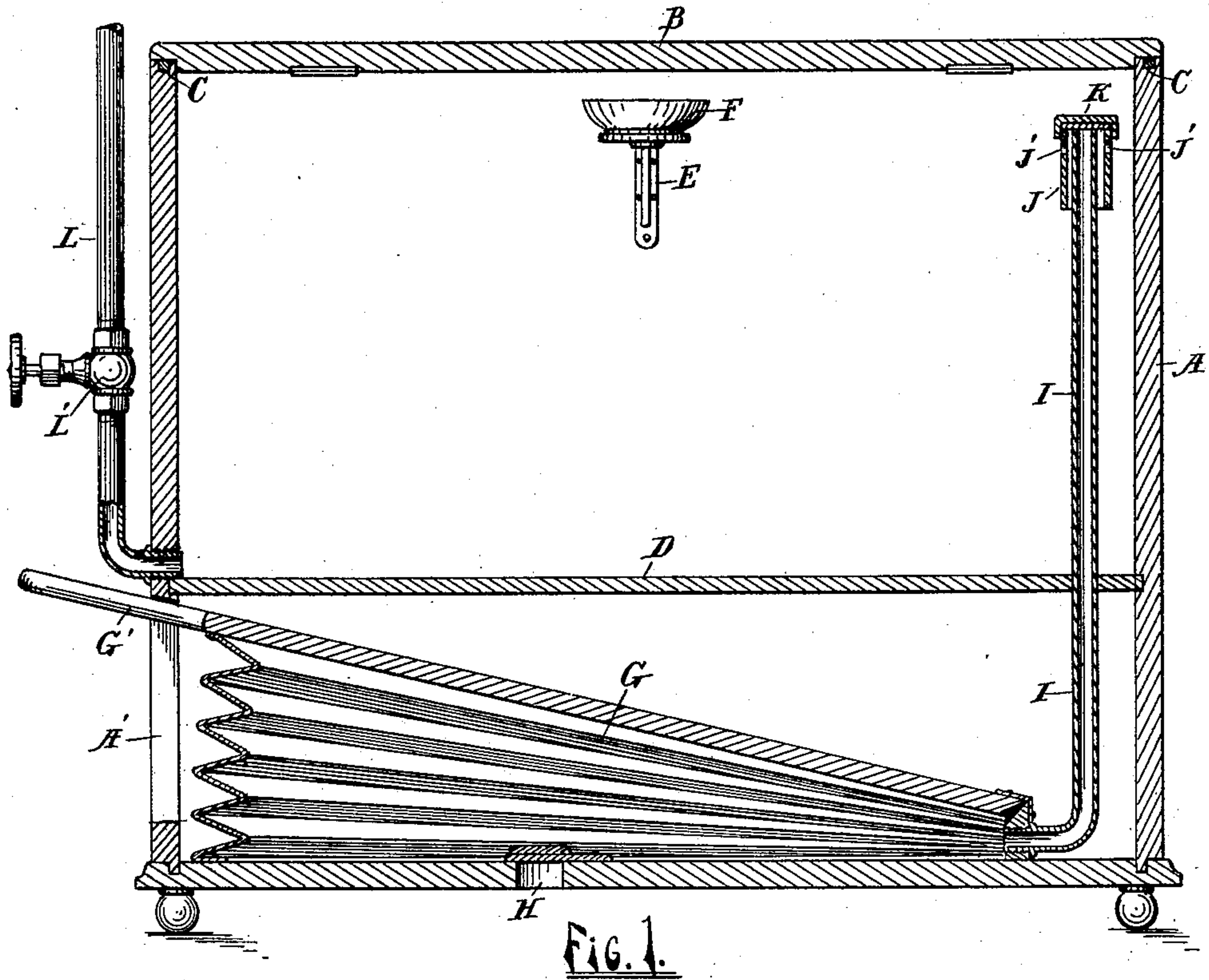


Fig. 1.

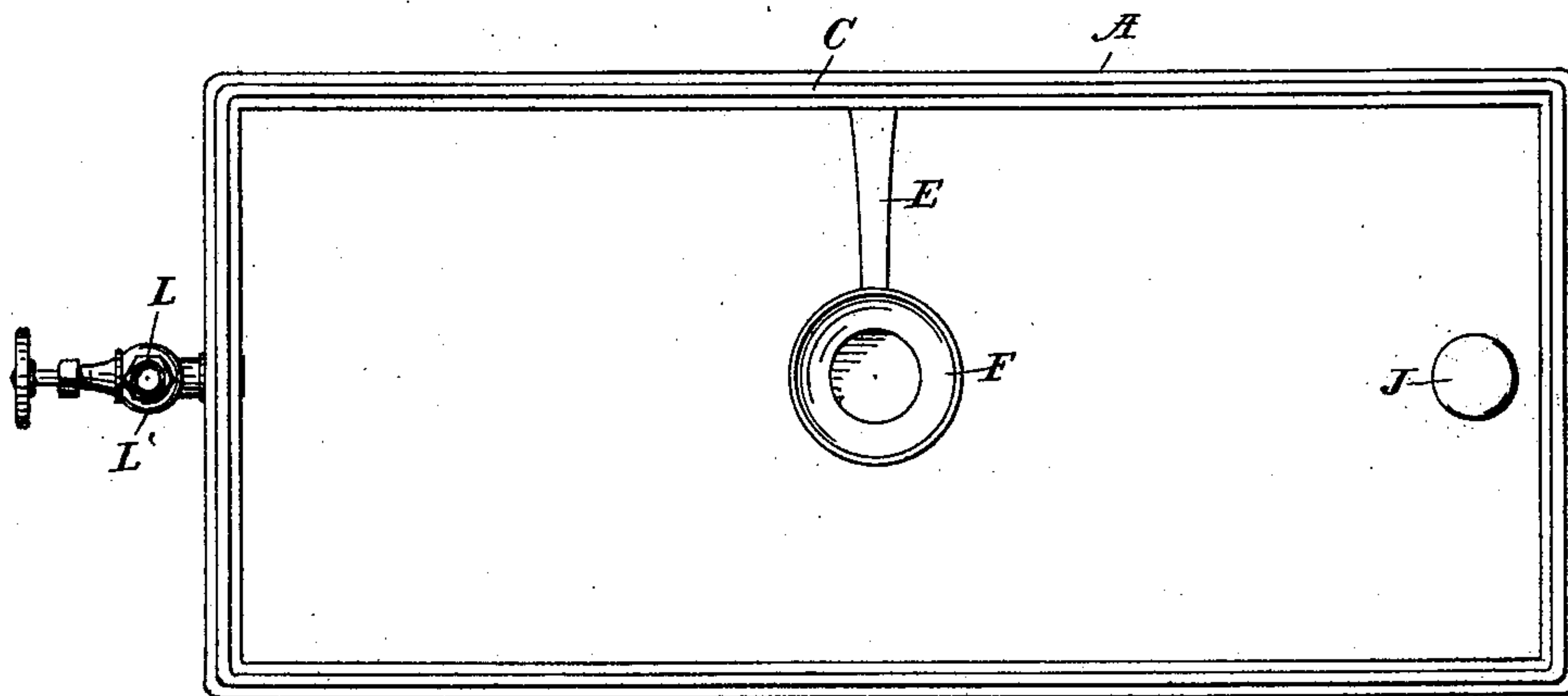


Fig. 2.

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UNITED STATES PATENT OFFICE.

HENRY H. FREEDMAN, OF LANSING, MICHIGAN.

FUMIGATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 685,268, dated October 29, 1901.

Application filed February 4, 1901. Serial No. 45,895. (No model.)

To all whom it may concern:

Be it known that I, HENRY H. FREEDMAN, a citizen of the United States, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Fumigating Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in apparatus for fumigating articles by means of volatile vapors, and more particularly to fumigating tobacco and tobacco products with the vapor of bisulfid of carbon to exterminate the pest (*Lasioderma serricornis*) commonly known as the "cigarette-beetle."

The objects of my invention are to provide an effective device whereby the articles may be thoroughly exposed to the vapor in a closed vessel and the vapor fully expelled from the vessel before opening the same, to avoid accident and the escape of fumes into the room, and to provide the device with certain new and useful features hereinafter more fully described, and particularly pointed out in the claims.

My device consists, essentially, of a suitable case to contain the articles to be fumigated and provided with a vessel to hold the volatile liquid, an escape-pipe extending from the case, and means for forcing air into the case, together with certain novel construction and arrangement of parts hereinafter more fully described, reference being had to the accompanying drawings, in which—

Figure 1 is a vertical section of a device embodying my invention, and Fig. 2 a plan of the same with the cover removed.

Like letters refer to like parts in both the figures.

A represents a case or box of any suitable form and dimensions, divided horizontally by a floor or partition D into upper and lower compartments.

B is a lid or cover to the case, adapted to open upward and preferably hinged at one side.

C is a packing to form a tight joint to the lid.

E is a bracket in the upper part of the case,

on which is supported an open vessel F to contain the liquid which by evaporation provides the vapor.

L is a pipe extending upward from the lower part of the upper compartment and provided with a valve L'.

In the lower compartment is a bellows G, having an intake-valve H in the bottom of the case. The lever G' for operating this bellows extends through a slot A' in the end of the case.

I is a pipe extending from the bellows G to near the upper part of the upper compartment and preferably diagonally opposite to the opening into the escape-pipe L. To prevent the vapor from passing into the bellows, a check is provided on the pipe I, consisting of an inverted tube J, loosely surrounding the pipe I and having lateral openings J' near the top, and a closed upper end provided with a packing K, engaging the end of the pipe and closing the same.

In operating the device the articles to be treated are placed in the upper compartment and liquid bisulfid of carbon is placed in the vessel F, which at normal temperatures gives off a vapor heavier than atmospheric air, which vapor fills the upper compartment and, acting on the articles therein, destroys the cigarette-beetles therein. After sufficient treatment with this vapor the valve L' is opened and the bellows G operated. The air from the bellows passes up the pipe I and, raising the check J, escapes through the openings J' into the upper part of the upper compartment and forces the vapor out of the same through the pipe L, which latter is extended to the open air or other safe place to discharge the vapor, which latter is highly inflammable and of a very disagreeable odor and cannot be safely or comfortably allowed to escape into the room.

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

1. The combination of a closed compartment, an escape-pipe extending upward from the same, a vessel in the compartment to contain a volatile liquid, a bellows, a pipe connecting the bellows and the compartment, and a check-valve for the pipe, substantially as described.

2. The combination of a closed compartment, a vessel in the same to contain a volatile liquid, a pipe extending from said compartment and having a valve, a bellows, a
5 pipe extending from the bellows to within the compartment, and a check on the pipe, substantially as described.

3. The combination of a case divided horizontally into upper and lower compartments,
10 and having a slot in the lower compartment, a bracket in the upper compartment, an open vessel supported on the bracket, a pipe extending from the lower part of the upper com-

partment, a valve in said pipe, a bellows in the lower compartment having an actuating- 15 lever extending through the slot, a pipe extending from the bellows to the upper part of the upper compartment, and a check on the pipe, substantially as described.

In testimony whereof I affix my signature 20 in presence of two witnesses.

HENRY H. FREEDMAN.

Witnesses:

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