

No. 843,069.

PATENTED FEB. 5, 1907.

G. G. BURDICK.
SEWER TRAP.

APPLICATION FILED NOV. 22, 1905.

Fig 1.

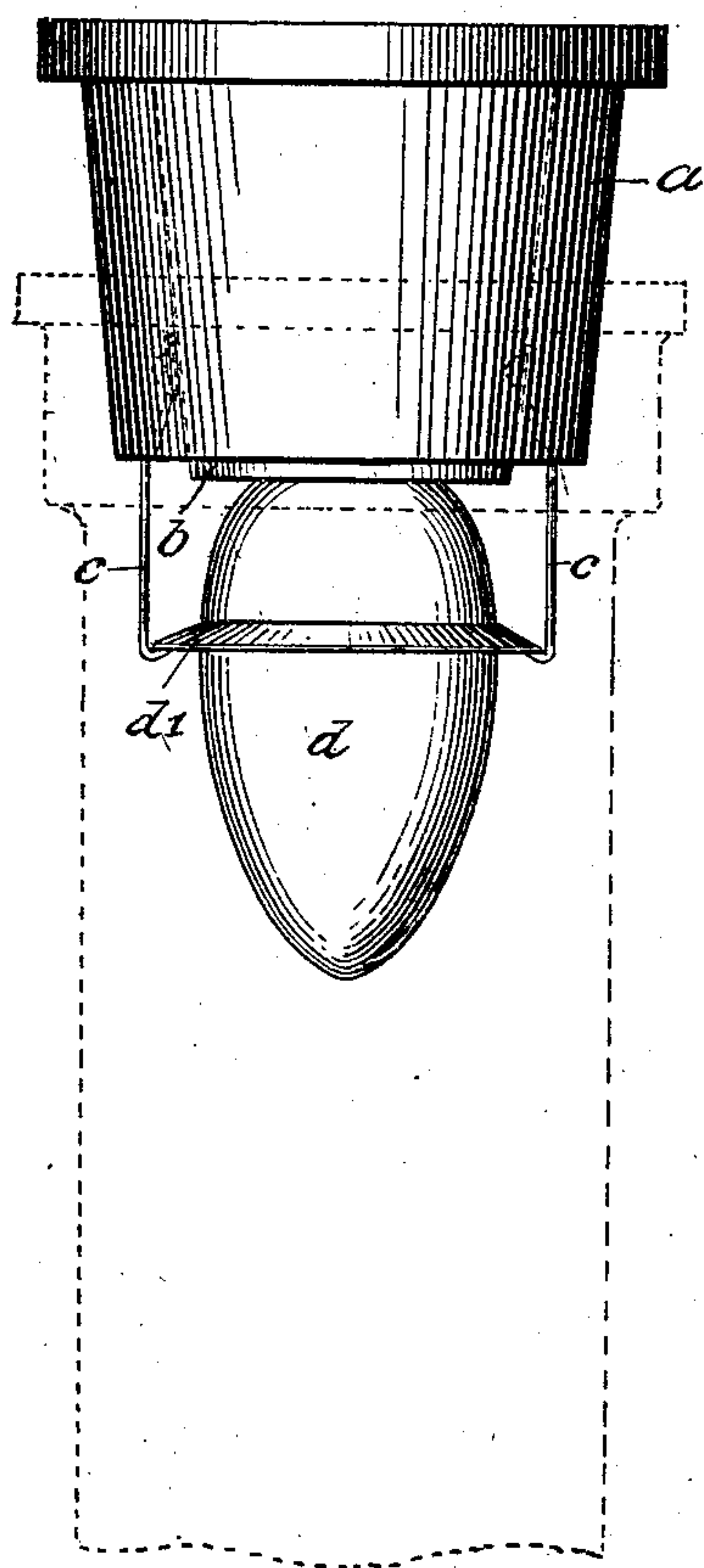
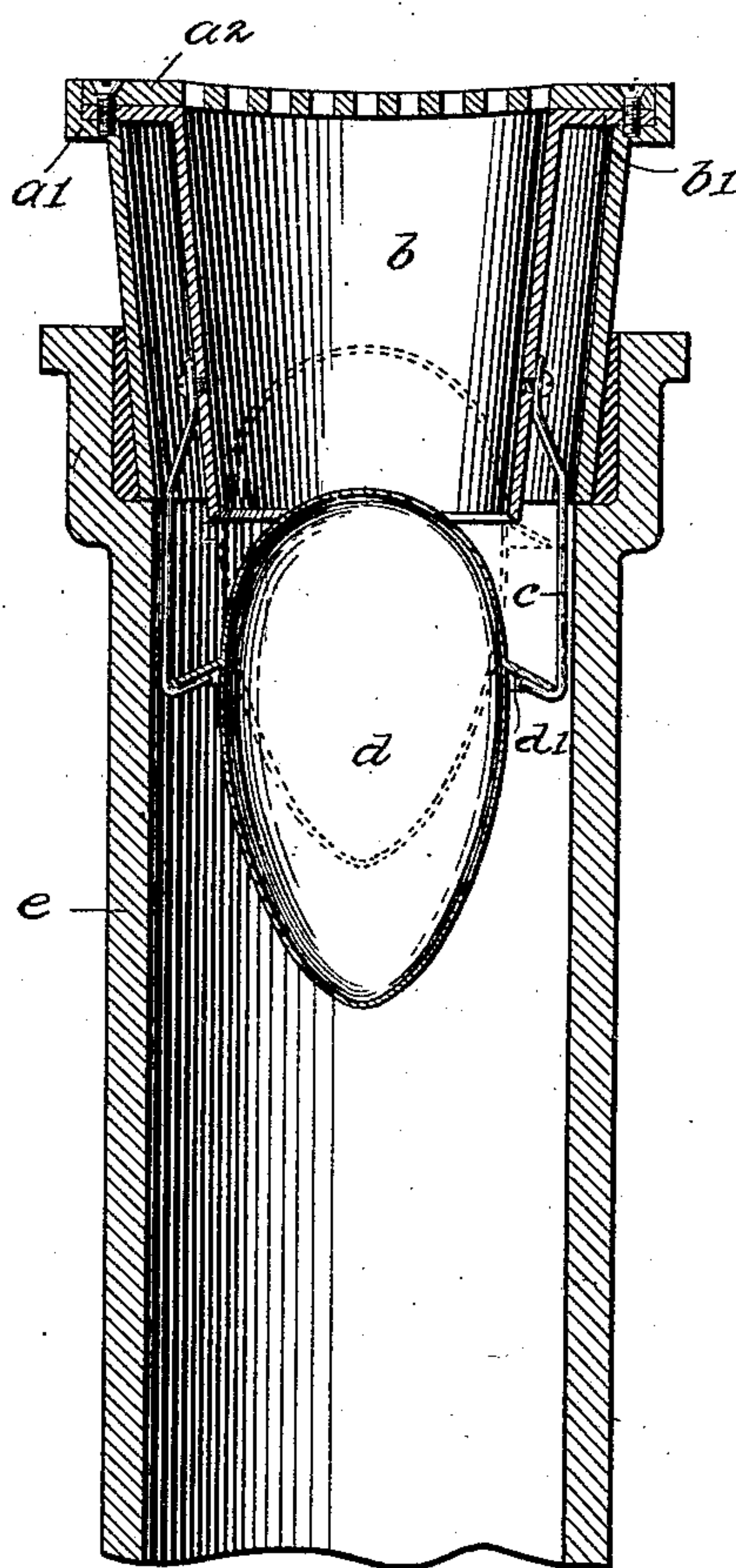


Fig 2.



Witnesses:

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Atty.

UNITED STATES PATENT OFFICE.

GORDON G. BURDICK, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
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SEWER-TRAP.

No. 843,069.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GORDON G. BURDICK, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sewer-Traps, of which the following is a specification.

This invention relates to improvements in traps of the class that is especially adapted to be used in sinks, cellars, area-ways, and other places where a relatively small volume of water runs through the trap and where there is especial danger of the water or sewage backing up in the drain-pipes connected with the trap.

The especial objects of my invention are to produce a device of the character named which will be of simple and inexpensive character, which can be readily disassembled and cleaned, which will have a minimum of parts or surfaces upon which solids or trash can accumulate, and which will afford a maximum outlet area for the water which drains there-through.

Other objects of general utility are secured by my invention, as will be apparent to those skilled in the art, and same need not be specifically mentioned.

In the accompanying drawings, which form a part of this application for patent, I have shown a preferred adaptation of the principles of my invention, but do not wish to be understood as thereby limiting myself to the specific form and arrangement of parts shown.

In said drawings, Figure 1 is an elevational view of my improved trap. Fig. 2 is a vertical section through the parts shown in Fig. 1 and through a section of drain-pipe with which the trap is operatively connected.

Referring to the details of the drawings, *a* represents a cylindrical box having its walls tapering inwardly from the top and having at its upper edge an annular shoulder *a'*, from which extends a vertical flange. Arranged within the box *a* is a pipe-section *b*, with its cross-section of less diameter than the corresponding diameter of the box *a* and with its walls tapering inwardly to correspond with the walls of said box. This pipe is formed with an annular horizontal flange *b'* at its upper edge, which is of sufficient width to form a closure at the upper end of the annular chamber which surrounds the pipe *b*. The flange *b'* also rests upon the flange *a'* of

the box *a* and is secured thereto by screws *b²*, which are countersunk in suitable openings in the grating-plate *a²*, which is placed over the top of the pipe *b*, and said screws threadably engage openings formed in the flange *b'* and the shoulder *a'*.

To the outer surface of the pipe *b* are secured a plurality of depending wire brackets *c*, the lower ends of which terminate in inwardly and upwardly bent hooks *c'*. These brackets are secured to the walls of the pipe *b* by screws which pass through eyes formed at the upper end of said brackets.

Supported loosely by the hooks *c'* of the brackets is a float-valve *d*, which is preferably hollow and egg-shaped and is so arranged that the smaller end of the valve is down. The upper portion of the valve is adapted when raised to fill the open lower end of the pipe *b*, the edge of which is slightly beveled to correspond with the contour of the surface of the valve. Surrounding the valve is a collar or flange *d'*, which slopes downwardly and is adapted to rest upon the hooks *c'*, thus limiting the downward movement of the valve and at the same time permitting the free upward movement of the valve caused by the backing up of water or sewage in the pipe *c*. The brackets will be of such number and so arranged as to effectively support the valve and at the same time center it in its position relative to the pipe *b*. As the flange *d'* is placed above the center of gravity of the valve, the excess of weight below the point of suspension will through gravity tend to maintain the valve in a vertical position; but should it lose such position it would not impair the action of the valve, because the portion above the flange is substantially spherical and would therefore seat itself on the lower edge of the pipe *b*. Under the most efficient conditions, however, the closure will be formed in part by the surface of the valve and in part by the upper face of the flange *d'*, the closed position being indicated by dotted lines in Fig. 2.

It will be apparent that if it should be desired to clean out the trap it is only necessary to disengage the screws *b²* from the shoulders *a'*, whereupon the grating-plate *a²*, the pipe *b²*, and its brackets *c* and the valve may be entirely removed from the drain-pipe and the box *a*, and any accumulations which may have gathered on the slight surface of the

wire brackets may be readily removed and the parts returned to their normal positions. It will also be apparent some other shape of float-valve would be probably as effective as that shown, so that I do not wish to be limited to any particular conformation of this feature; but

What I claim is—

1. A trap comprising a suitable box, a pipe
10 removably arranged within said box, brackets depending from said pipe and having hooks at their lower ends, a float-valve adapted to form a closure for the lower end of said pipe and having an annular flange secured to
15 said valve at a point above its center, said flange extending downwardly from the walls of said float and adapted to be engaged by said hooks.

2. In a trap comprising a pipe having a

valve-seat, a hollow egg-shaped valve having an annular flange and means for loosely supporting said valve from said pipe.

3. In a trap comprising a pipe having a valve-seat, a hollow valve having an annular flange arranged above the center of gravity of the valve, and means for loosely supporting said valve from said pipe.

4. A valve consisting of a hollow member having its upper part hemispherical and its lower part tapering, and having secured at the base of its hemispherical portion, an annular downwardly-extending flange.

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

GORDON G. BURDICK.

Witnesses:

CHARLES FORD,
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