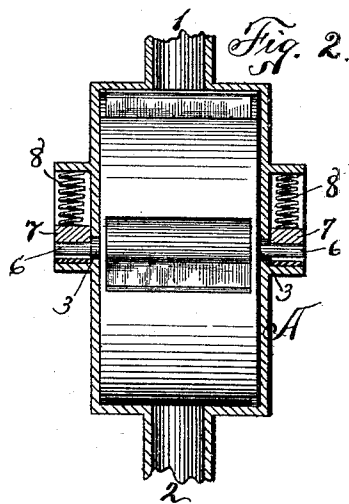
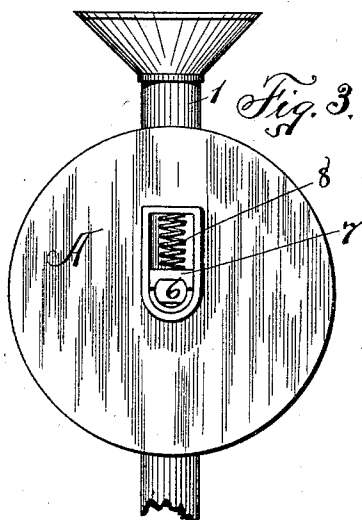
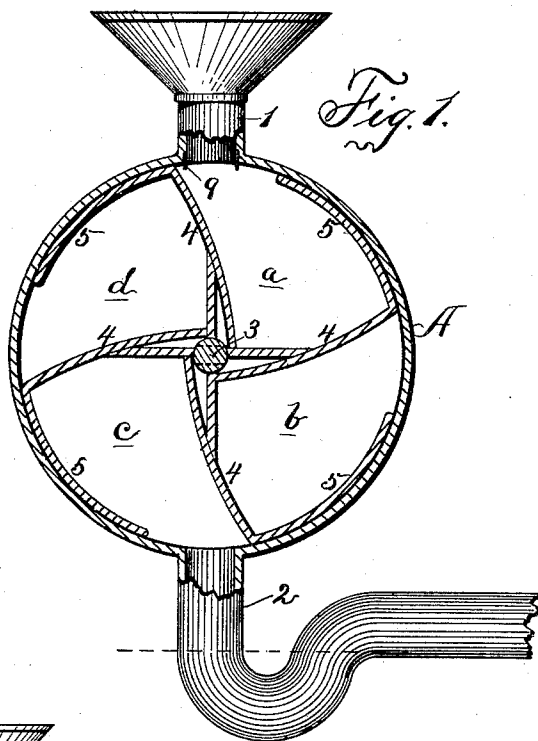


(No Model.)

C. L. GAGE.
SEWER TRAP.

No. 461,955.

Patented Oct. 27, 1891.



Witnesses
C. B. Lums.
H. A. Carhart

Charles L. Gage Inventor

By his Attorneys

Smith + Denison

UNITED STATES PATENT OFFICE.

CHARLES L. GAGE, OF SYRACUSE, NEW YORK.

SEWER-TRAP.

SPECIFICATION forming part of Letters Patent No. 461,955, dated October 27, 1891.

Application filed February 16, 1891. Serial No. 381,532. (No model.)

To all whom it may concern:

Be it known that I, CHARLES L. GAGE, of Syracuse, in the county of Onondaga, in the State of New York, have invented new and useful Improvements in Sewer-Traps, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to the construction and operation of sewer-traps.

My object is to construct a sewer-trap which will at all times produce a tight joint between the inlet and outlet pipe, thus preventing the foul gases from entering the building.

My invention consists in the several novel features of construction and operation hereinafter described and which are specifically set forth in the claims hereunto annexed.

It is constructed as follows, reference being had to the accompanying drawings, in which—

Figure 1 is a transverse section through the center of the trap, showing the inlet and outlet pipes. Fig. 2 is a vertical section thereof. Fig. 3 is a side view of the trap complete, showing the spring-actuated arbor-bearing.

Similar letters and figures of reference indicate corresponding parts.

A is the casing or cylinder, having a receiving-pipe or funnel 1 upon its upper face and any ordinary goose-neck exit-pipe 2 leading from its lower face.

3 is the arbor mounted centrally in the cylinder and having wings 4 secured about it, and to the lateral edges of said wings are secured pieces 5, having their outer faces conforming to the inner face of the cylinder, thus forming compartments *a b c d*. (Shown in Fig. 1.) The outer end of the arbor upon its bearing-surface is constructed with two opposite sides, flattened, as shown at 6 in Fig. 3, and the upper side of the journal-box 7 is made to conform therewith and is held vertically in contact with the arbor-bearing by the spring 8, the purpose of which will hereinafter appear.

The operation of the trap is as follows:

When the compartment *a* is filled or partly filled, the compartments rotate until the compartment *a* occupies the position of *b*. When the next compartment fills and the compartments again rotate, the compartment *a* assumes the position of *c* and there discharges its contents into the exit-pipe 2.

9 is a piece of rubber or analogous material secured to the inner face of the inlet-pipe 1, and extends below the inner face of the cylinder, as shown, for the purpose of producing a packing between the inner face of the cylinder and the outer face of the piece 5 when the compartments are rotating, and thus prevent the fluid from flowing down between the cylinder and piece 5.

The object of flattening the two opposite sides of the arbor-bearing is for the purpose of keeping the compartments in the position shown in Fig. 1—that is, one compartment with its mouth directly under the inlet-pipe 1, ready to receive the fluid, and another compartment with its mouth directly over the exit-pipe for the purpose of discharging the fluid. I prefer to only flatten the arbor on two sides, leaving two intermediate rounded surfaces or sides, so that, while it will require substantially a full compartment to shift when standing on a flat side of the arbor, it will only require a part of a filling in the next compartment when the arbor is on the rounded side to make a shift, the result being that each full compartment, as *a*, is dumped more quickly to the position of *b* and requiring a much smaller quantity in compartment *d* than if all four sides of the arbor were flattened, which would then require the filling of each compartment.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A sewer-trap consisting of a cylinder having inlet and outlet pipes, an arbor mounted centrally in said cylinder, and compartments secured to said arbor and automatically rotating it by the successive filling of said compartments and their dumping into the outlet.

2. A sewer-trap consisting of a cylinder
having inlet and exit pipes and compartments
rotating in said cylinder, the arbor-bearing
of said compartments having two opposite
5 sides flattened and operating in a spring-actu-
ated arbor-box, substantially as described,
for the purpose set forth.

In witness whereof I have hereunto set my
hand this 11th day of February, 1891.

CHARLES L. GAGE.

In presence of—

HOWARD P. DENISON,
C. W. SMITH.