

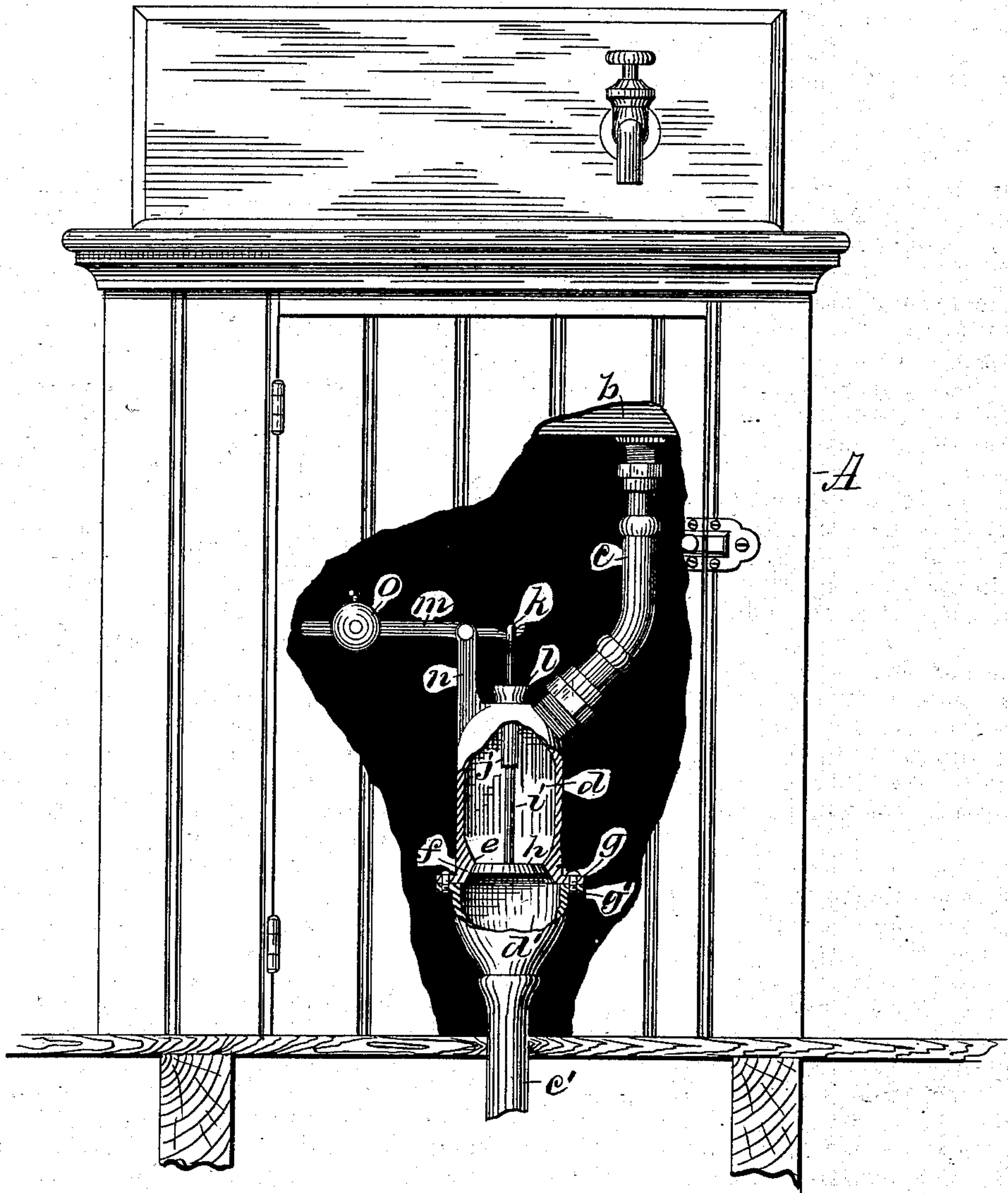
(No Model.)

A. KOEGEL.

SINK TRAP.

No. 326,126.

Patented Sept. 15, 1885.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ALOIS KOEGEL, OF MILWAUKEE, WISCONSIN.

## SINK-TRAP.

SPECIFICATION forming part of Letters Patent No. 326,126, dated September 15, 1885.

Application filed June 3, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, ALOIS KOEGEL, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful  
5 Improvements in Sink-Traps; and I do hereby declare the following to be a full, clear, and exact description of said invention, reference being had to the accompanying drawings, and to the letters or figures of reference marked  
10 thereon, which form a part of this specification.

My invention, to be hereinafter distinctly claimed, relates to sink-traps.

The object of the invention is to provide an  
15 adjustable automatic trap simple and inexpensive in construction and efficient in operation.

The accompanying drawing illustrates a sink with the door of the case broken away,  
20 showing my trap as attached to the sink discharge-pipe, the case of the trap being also broken away on one side, showing the operative parts of the mechanism that are inside of the case.

In the drawing, A is the supporting and inclosing case of a kitchen-sink. A portion of the lower part of the sink is shown at *b*. A discharge-pipe, *c c'*, leads from the sink *b*  
25 downward into the sewer. Beneath the sink and in the line of the discharge-pipe, and forming a part of the conduit of discharge from the sink, my trap is placed, the whole passage being water-tight from the sink to the sewer, and gas-tight at and below the valve of the  
30 trap. The trap consists of an inclosing-case made in two parts, forming the chambers *d d'*, the upper chamber, *d*, being adapted to receive the liquid-discharge, and the lower chamber, *d'*, being for the reception and movement  
35 therein of the valve and for the passage there through of the liquid-discharge from the chamber *d* into pipe *c'*. The chamber *d* is cylindrical, having its lower end contracted by an inwardly-extending flange, *e*, forming a throat,  
40 the downward and outward passage from which is beveled outwardly, forming a seat, *f*, against which the valve closes upwardly. The lower end of the case of the upper chamber, *d*, is provided with an outwardly-extending  
45 flange or rigid rim, *g*, fitting upon a corre-

sponding rim, *g'*, on the top of the case of the lower chamber, *d'*, and whereby these two cases by means of bolts are attached rigidly together, forming a gas and water tight joint. The case of the lower chamber, *d'*, is con-  
50 tracted downwardly, and terminates in a gas and water tight joint in the pipe *c'*. The two chambers are intended to be set vertically, as shown in the drawing, and the lower chamber, *d'*, has the same or slightly greater diameter  
55 than the upper chamber. The free vertically-moving valve *h* has its periphery beveled outwardly downwardly, and is adapted to fit tightly against the seat *f* on the lower side of the flange *e* and close the passage between the  
60 chambers *d* and *d'*. The valve *h* is provided with a centrally-affixed rigid stem, *i*, extending upwardly through the sleeve *j* and through the top of the case of the chamber *d*, and terminating in a hook or eye, *k*. The sleeve *j* is  
65 rigid to and extends downwardly from the top of the case of chamber *d*, and is a bearing or guide for the stem *i*, which has a free vertical movement therethrough. The aperture  
70 through the top of the case of chamber *d* is provided with a packing-nut, *l*, through which the stem *i* passes, and has its vertical movement therein. The valve *h* and stem *i* are sup-  
75 ported upon a lever, *m*, the short arm of which lever is inserted in the eye *k* in the top of the stem *i*. The lever *m* is pivoted in the arm *n*,  
80 extending upwardly from and rigid on the case of chamber *d*. On the outer arm of this lever *m* is the balancing-weight *o*, movable and adjustable on said arm. This weight *o* can be  
85 moved in or out on the arm of the lever and so adjusted as to just balance the valve *h* and stem *i*, so that when any liquid whatever falls upon the valve it will open and let the liquid run  
90 through; or the weight *o* can be so adjusted that some additional weight of liquid will be required to overcome the gravity of the weight *o* before the valve *h* will open and permit the liquid to pass it. It is desirable to have the  
95 weight so adjusted that it will sustain a small amount of liquid on the valve without opening, except only when the trap is used, where there is liability of the liquid's freezing, in which case the weight should be adjusted to  
100 just balance the valve and stem alone and hold



the valve closed when no liquid is on it, and permit it to open at once when any liquid is discharged thereon.

It is obvious that at any time any excess of liquid on the valve *h* above what is required with the valve and stem to balance the weight *o* as adjusted will at once open the valve and permit the downward passage of the liquid.

The valve *h* moves freely downwardly into the chamber *d'* and closes upwardly against the seat *f*.

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

The automatic gas and water tight sink trap consisting of two closed chambers, *d* and *d'*, placed one above the other, the upper one being provided with an inlet-pipe, *c*, and the lower one being provided with an outlet-pipe, *c'*, the flange *e* extending inwardly from the wall of the upper chamber and forming the partition between the two chambers, the outwardly downwardly beveled valve-seat *f* on the lower side of the flange *e*, the circular valve *h*, hav-

ing its periphery beveled inwardly upwardly, and adapted to be lifted against the seat *f* and close the apertures between chambers *d* and *d'*, said valve having a vertical movement within the lower chamber, and being supported, moved, and guided by the upwardly-extending stem *i*, affixed rigidly centrally to said valve and passing out through the top of the upper chamber, the sleeve *j*, rigid to the top of chamber *b* and adapted to guide the stem *i* in its vertical movements, and the lever *m*, pivoted and supported on an arm on the case of the upper chamber, said lever at one end being attached to the top of stem *i*, and being provided on its other arm with the movable weight *o*, all substantially as described, and for the purpose set forth.

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

ALOIS KOEGEL.

Witnesses:

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