

G. R. MOORE.
Sink-Drains.

No. 137,788.

Patented April 15, 1873.

Fig. 1.

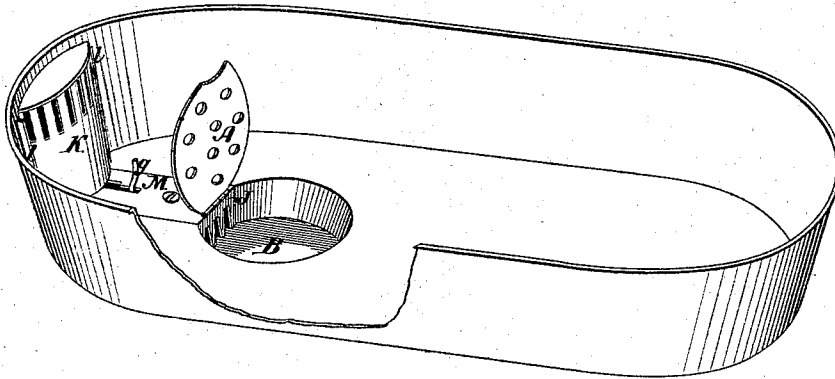


Fig. 2.

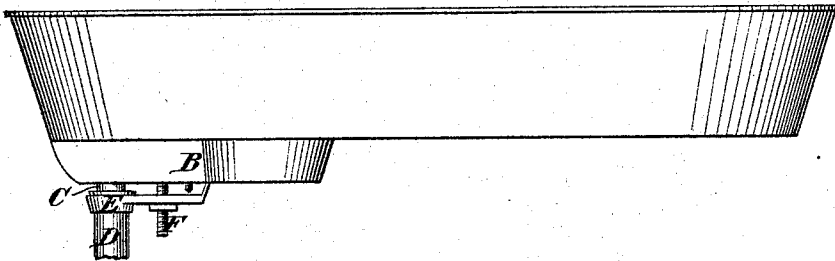
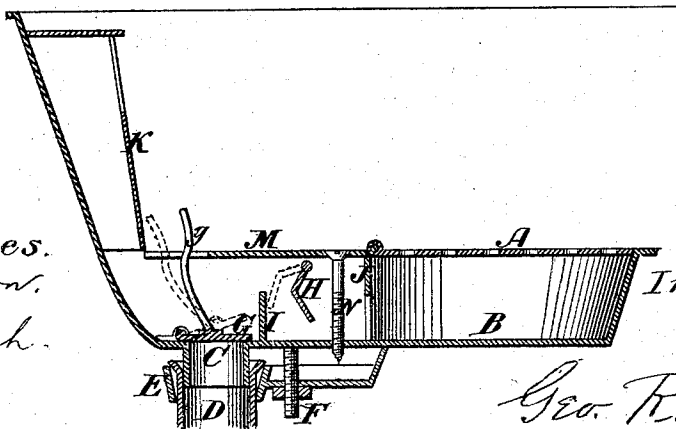


Fig. 3.



Witnesses.
C. F. Brown.
M. Church.

Inventor.

Geo. R. Moore

UNITED STATES PATENT OFFICE.

GEORGE R. MOORE, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SINK-DRAINS.

Specification forming part of Letters Patent No. 137,788, dated April 15, 1873; application filed January 24, 1873.

To all whom it may concern:

Be it known that I, GEO. R. MOORE, of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain Improvements in Sink-Drains, of which the following is a specification:

The object of my invention is to provide, in sinks or other containers of fouled liquids to be drained off, anti-clogging devices to protect the drain-pipes; also, to provide more simple and efficient devices for some of the ordinary parts of sinks as now commonly made.

Figure 1 is a perspective view of an ordinary sink with my improvements combined. Fig. 2 is a side view of the same. Fig. 3 is a vertical transverse section drawn upon a larger scale, and showing only the end of the sink containing my improvements.

A is a strainer of the ordinary kind, but not in the usual place, which is immediately above the mouth of the drain-pipe. B is a depression in the bottom of the sink, affording room for sediment to settle which may have passed through the strainer; also a passage to the outlet C. D represents a piece of drain-pipe, connected to the outlet of the sink by the special clamp E, which is a simple lever with fulcrum between the ends, one end clasping the lead pipe and holding it up as a weight, and the other resting upon the bottom of the sink as a stationary fulcrum, while a variable fulcrum is afforded, and the clamp adjusted and operated by the screw and burr F. G is a valve placed below the strainer, or at the bottom of the depression B, so as to control the outflow after it has passed all the strainers, and which may be operated at will to suspend or renew the outflow from the sink or container to be drained. H is a splash-check or automatic valve, hung upon free bearings to swing easily, that it may be closed by a current more rapid than is desired through the passage from the strainer to the outlet of the sink. If the contents of a sink ordinarily are stirred up and forced along rapidly, portions can be passed through strainer after strainer that will tend to clog the pipes; and it is to prevent this forcing by sudden splashing that I interpose this automatic check-valve. It will be seen that the lighter this swinging valve is upon its lower edge the less force is required to swing

it back to the jamb I, upon which it closes. The manufacturer must therefore make this of whatever weight he finds best suited to his wants. I, besides affording a jamb for H to swing against, constitutes one portion of a water or stench trap. It will be seen that its upper edge is higher than the lower edge of J, and thus a water-trap is formed between the strainer and the outlet of the sink. It is obvious that the same kind of a trap may be placed between the overflow K and the outlet, if desired. K is a removable curved plate, with solid top and vertical openings around its upper end. It is held in place by duffs *l l* upon the inside of the sink, which is cast in the usual form; but K being curved, a passage is formed between them to B and the outlet, thus providing what is known as an "overflow"-passage of a superior kind and at trifling expense.

I am well aware that overflows have been made of various constructions, and I shall claim only this specific kind.

M is a close cover over that portion of B between the strainer and the outlet, and extends to K, so that when K is in place a regular passage is constructed from its open bars to the outlet.

In this instance the valve G is operated by the lever *g* extending through M; but other kinds of valves may do equally well. J, which crosses B, performs several functions. Its lower part is a strainer. Its upper side is left solid to form one portion of the water-trap, before named; and, again, it is designed to detain floating grease, which may solidify. It is well understood that grease is the worst element for clogging drain-pipes. Notice that the top of I is higher than the slotted part of J, so that water in B will be kept above them, and give floating grease opportunity to remain this side and to cool immediately under the strainer—that is, in B—from which it can be removed, as well as sediment which may collect there.

The operation of my improved clamp E, shown in Figs. 2 and 3, may be further stated. It clasps the lead pipe as other couplings do; but instead of a bolt upon two sides of it extending up through the sink, and exposing the same to leakage and rust, there is required

but one bolt, which, with the burr upon it, acts as a variable fulcrum. While the resistance at one end of the clamp is upon the bottom of the sink the other is upon the pipe, and holds it up as well as any other, with this advantage of less bolts and less holes in the sink, and less labor to attach it.

I am aware that valves have been used for controlling the outlets of sinks, and I do not broadly claim such a valve.

I claim as my invention—

1. The splash-check or automatic valve H, substantially as and for the purpose herein set forth.

2. The clamp or coupling E, for the purpose herein set forth.

3. The arrangement of the valve G lower

down than the strainer A and in immediate connection with the drain-pipe C, and operated through an opening in the cover M, all substantially as and for the purpose herein set forth.

4. In combination with the depression B, the strainer J with its solid upper part, whether made in one piece or not, as a device to operate in conjunction with I or its equivalent in performing the functions of trapping and of keeping back grease, as herein set forth.

5. The arrangement and combination of the several parts A B C K, as herein shown.

GEO. R. MOORE.

Witnesses:

C. F. BROWN,

GEO. E. BROWN.