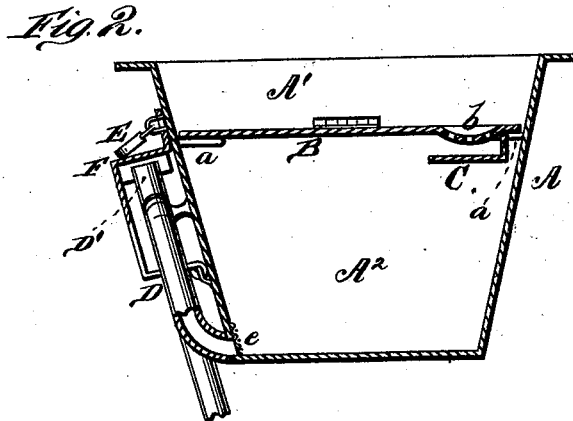
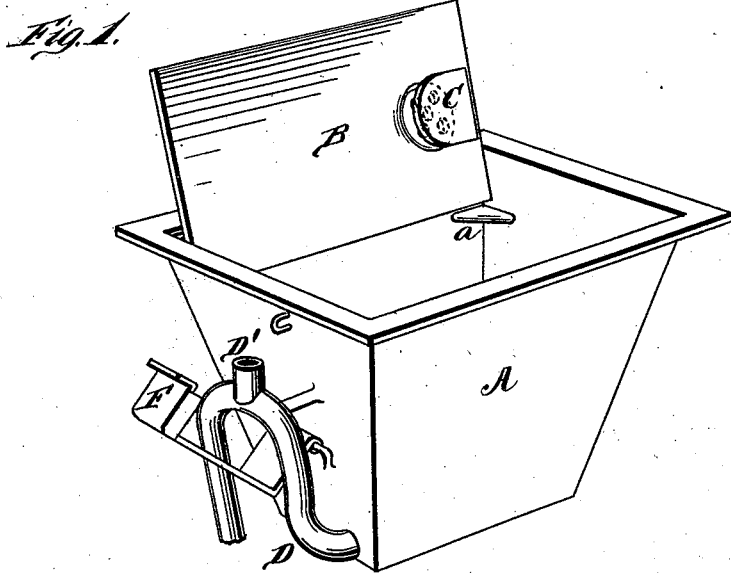


W. T. AIKINS.
Grease-Arresters for Sinks.

2 Sheets—Sheet 1.

No. 200,012.

Patented Feb. 5, 1878.



WITNESSES
Robert Emmett
John J. Freeby

INVENTOR,
Wm. Thos. Aikins, m. d.
Johnmore Smith & Co.
ATTORNEYS.

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Fig. 3.

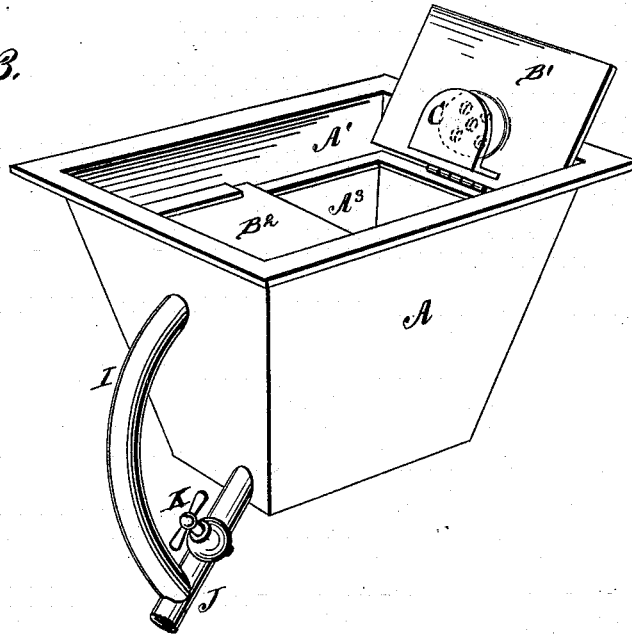
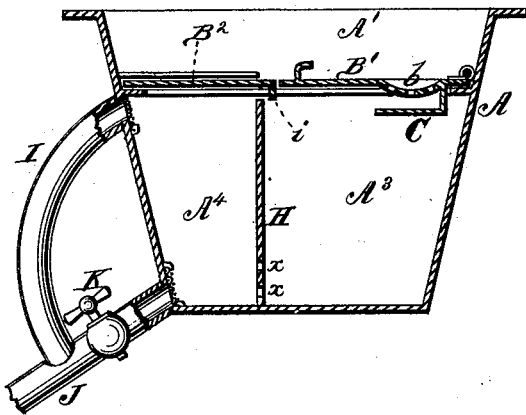


Fig. 4.



WITNESSES

Robert Smith,
James J. Sheehy.

INVENTOR.

Wm. H. Osborn, Atk. No. 2.
J. E. Moore, Smith & Co.
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM THOMAS AIKINS, OF TORONTO, ONTARIO, CANADA.

IMPROVEMENT IN GREASE-ARRESTERS FOR SINKS.

Specification forming part of Letters Patent No. **200,012**, dated February 5, 1878; application filed January 24, 1878.

To all whom it may concern:

Be it known that I, WILLIAM THOMAS AIKINS, M. D., of Toronto, in the Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Grease-Arresters for Sinks; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to kitchen and similar sinks; and it consists in the construction and arrangement of a grease-arrester for the same, formed by extending the sides of the sink downward to form a chamber below the sink, the bottom of the sink proper being hinged, and forming the cover for said chamber; and in providing such chamber with an automatic drain-pipe; and in the construction and combination of parts, as will be hereinafter more fully set forth, and pointed out in the claims.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of a sink embodying my invention, and showing one form thereof. Fig. 2 is a longitudinal vertical section of the same. Fig. 3 is a perspective view, showing another form of my invention. Fig. 4 is a longitudinal vertical section of the same.

A represents a vessel of suitable dimensions, made of cast-iron or other material, and, preferably, in the angular tapering form shown in the drawing, and provided around the upper edge with a flange or rim. A suitable distance below the top of this vessel is hinged a plate, B, which, when let down, rests upon suitable lugs *a a* inside of said vessel. This plate thus divides the vessel into an open upper chamber, A¹, which is the sink proper, and a closed lower chamber, A², which forms the grease-arrester. In other words, the sides of the sink are extended downward to form the lower chamber, and the bottom B of the sink is hinged, and forms the cover for said lower chamber. In the hinged bottom B, at or near one end, is made the usual depression *b*, with perforations to form the strainer, and

below the same, to the under side of said bottom, is attached a shield or guard, C, over which the water flows from the sink into the grease-arrester A², thereby preventing any splashing of the water.

D represents an upwardly-bowed pipe, one end of which enters the chamber or grease-arrester A² at or near the bottom, and has a strainer, *e*, over it, as shown in Fig. 2, and the other end of said bowed pipe is to connect with the usual drain-pipe.

As a regular siphon would not answer, for reasons that will be hereinafter explained, I provide the bowed pipe D at the top of its bend with a short pipe, D', for the admission of air. It is obvious that by closing this tube D' with a cork, or by other suitable means, the pipe D will be converted into a siphon, and that by means of said tube and suitable removable stopper the operator can secure the benefits of a siphon at will.

The water thrown into the sink will pass directly into the lower chamber A², where it will remain and rise, and also rise in one arm of the bent pipe D until it reaches the bend of said pipe, when any excess above this point will be automatically drawn off from the bottom of the chamber A².

As soon as the water in the chamber A² sinks to or below the bend in the pipe D the outflow at once ceases, leaving a certain quantity in the chamber. As all grease and fatty matter will rise to the top of the water in the chamber A², and the water is drawn off from the bottom only, it will readily be seen that the grease is thus arrested, and can be collected at any time when desired.

I am fully aware that grease-arresters have been made with a regular siphon to draw off the water; but in such cases all the water, including the grease, is liable to be drawn off, while with my invention this cannot be done, as the water will always stand at a certain height in the chamber unless the air-inlet D' be stopped up, when, of course, the pipe D becomes a regular siphon, and draws off all the water just the same as in the cases referred to.

When it is desired to clean out sediment, &c., from the bottom of the grease-arrester, the lid B is raised and such sediment scraped

up; or the grease-arrester may be provided with an outlet-pipe at the bottom, with suitable stop-cock, through which the sediment can be washed out.

To prevent servants from emptying the chamber A² to save the trouble of collecting the grease, I provide a hinged cover, F, to go over the end of the air-inlet D', and fasten the same with a suitable lock, E. This cover is so constructed that, while it gives free ingress to the air, it absolutely prevents anybody from stopping up said air-inlet, which would, as stated, convert the pipe D into a regular siphon.

In some cases I may divide the lower chamber or grease-arrester into two compartments, A³ and A⁴, by means of a vertical cross-partition, H. In this case the bottom of the sink proper is made in two parts, B¹ and B², the part B¹ being hinged and covering the compartment A³. This part B¹ is provided with the strainer *b* and shield C. The part B² covers the compartment A⁴, and is made to slide in suitable ways, as shown, and it has at its junction with the part B¹ a downwardly-projecting flange, *i*, to direct any water that may pass down at this point into the compartment A³. The water passes first into the compartment A³, and from thence through openings *x* (one or more) in the lower end of the partition H into the compartment A⁴. The grease collects at the top of the water in the compartment A³, and the water stands in both compartments level with the drain-pipe I.

J is a pipe, with stop-cock K, for entirely emptying the grease-arrester. If desired, the grease-arrester or lower chamber may in either case be made entirely separate from the sink proper, and placed under an ordinary sink.

The bent pipe D, with its air-inlet D', may be applied to any suitable vessel, and arranged below the ordinary kitchen-sink or other place.

In some cases I may omit the hinged lid or lids altogether, and make the sink and grease-arrester all in one vessel or chamber.

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

1. The vessel A, with hinged plate B, forming a sink, A¹, and grease-arresting chamber, A², said chamber being provided with the upwardly-curved pipe D, having tube D', adapted to be opened or closed at will by a cork or other suitable means, substantially as and for the purposes specified.

2. The hinged plate B, having strainer *b*, and provided below the same with the shield C, for the purposes herein set forth.

3. In combination with the curved pipe D, with air-inlet D' and the grease-arrester, the cover F, constructed and arranged substantially as and for the purposes herein set forth.

W. T. AIKINS, M. D.

Witnesses:

D. D. WRIGHT, M. D.,

WILLIAM AIKINS.