2 Sheets--Sheet 1.

E. D. CULVER.

Removable Trays for Sewer-Traps.

No. 153,425. Patented July 28, 1874.

Fig: I.

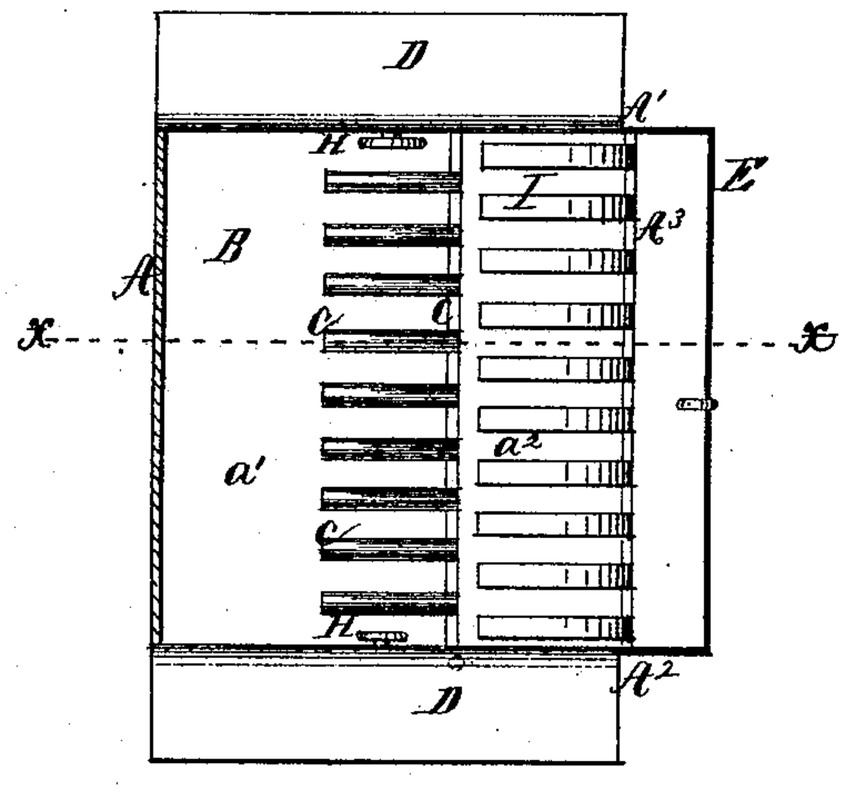
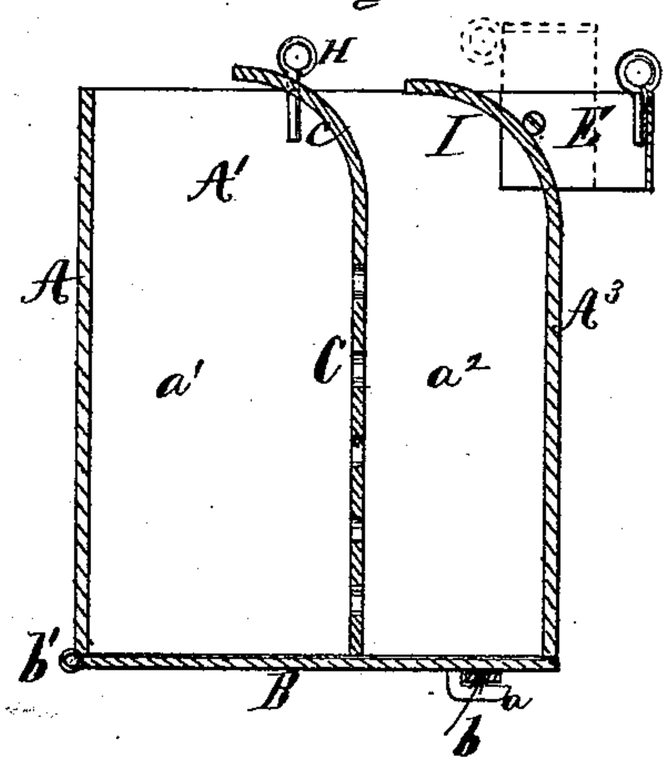


Fig: II.



Witnesses:
Franklin Barritt.
Richard Gerner.

Inventor:
Ephraim D. Culver.
Per:
Henry Gerner,
atty

2 Sheets--Sheet 2.

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Fig: III.

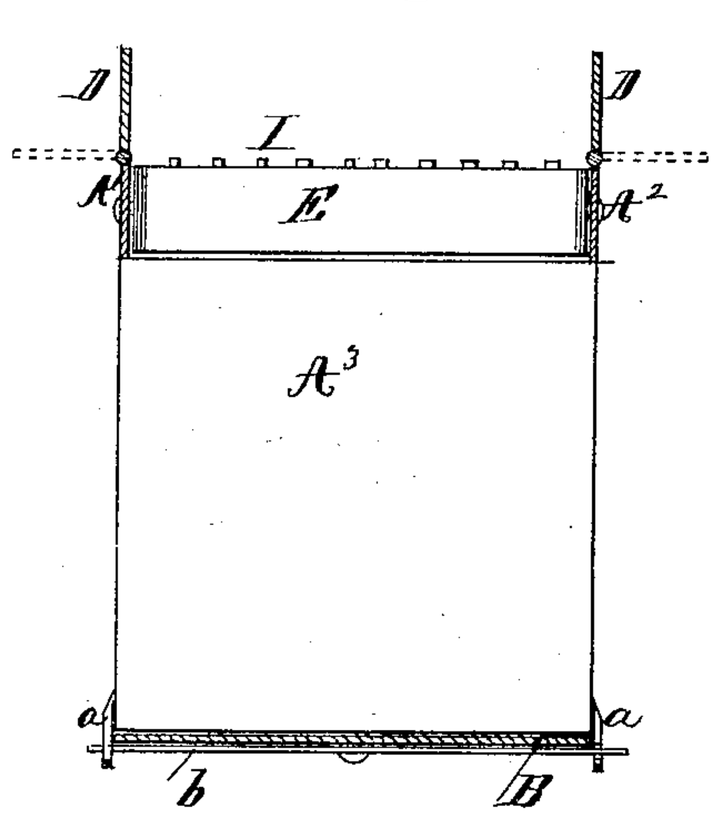
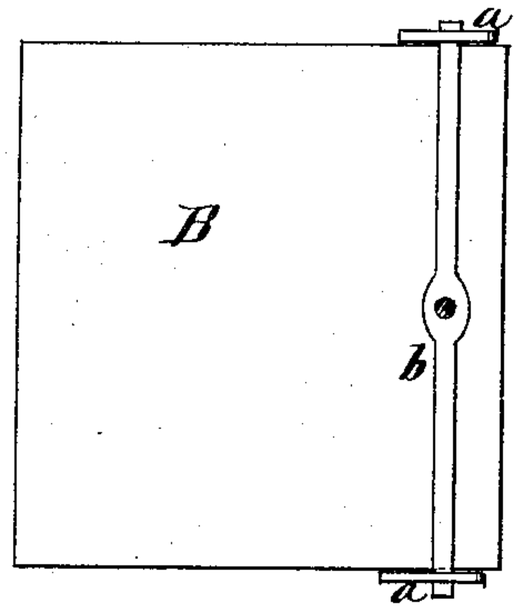


Fig: IV.



Witnesses:
Franklin Barritt.
Richard Gerner.

Inventor:
Ephraim D. Culver.
Per:
Henry Gerner,
Atty.

UNITED STATES PATENT OFFICE.

EPHRAIM D. CULVER, OF SOUTH AMBOY, NEW JERSEY.

IMPROVEMENT IN REMOVABLE TRAYS FOR SEWER-TRAPS.

Specification forming part of Letters Patent No. **153,425**, dated July 28, 1874; application filed May 25, 1874.

To all whom it may concern:

Be it known that I, EPHRAIM D. CULVER, of South Amboy, in the county of Middlesex and State of New Jersey, have invented a new and useful Improvement in Removable Trays for Sewer-Traps, of which the following is a specification:

This invention is an improvement in an invention for a similar purpose for which a patent was allowed me on the 16th day of December, 1872. The improvement herein made consists in providing the said tray with adjustable throat-pieces, and also in an improved construction of the diaphragm which divides the interior of the tray into two compartments. The nature of the invention will be more readily understood by reference to the accompanying drawings.

Figure I is a plan view of the improved tray. Fig. II is a transverse sectional view through line *x x*, Fig. I. Fig. III is a front-elevation view. Fig. IV is a bottom plan.

The tray is to be built of metal, and has four sides, A A^1 A^2 A^3, which are to be strongly riveted or otherwise fastened together. To the lower end of one of these side pieces a bottom, B, is to be hinged, and the said bottom is to be secured in its closed position by a latch, *b*, which is arranged to cross the bottom and engage the catches *a* of the side plates in such a manner as to hold up the bottom to the said side plates, even when the tray is filled with solid dirt, which will then rest on the bottom, which rests on its hinges *b'* and the aforesaid latch *b*. The side A^3 is somewhat shorter than the other three sides, so as to allow an overflow on that side for the water to flow from the tray off into the sewer. The interior of the tray is divided into two compartments, a^1 a^2, by the perforated diaphragm C and the grating *c* above it. To the tops of the side pieces A^1 and A^2 there are hinged throat-pieces D, which may be thrown back in the position shown in dotted lines in Fig. III, so as to wholly close up the cavity of the basin when the tray is in position therein; or the said throat-pieces may be thrown up in vertical position over their respective side pieces, as in full lines in the same figure, when the tray is to be lowered or hoisted from its seat in the catch-basin. A guard-piece, E, is also hinged to the side pieces A^1 A^2, to form a guide or rest for the aforesaid throat-pieces when they are thrown up. This may be thrown back, as in the dotted lines in Fig. II, when the tray is down. There are hooks H securely affixed to the top ends of the side plates, by which the tray is to be lowered into or hoisted from its position in the catch-basin. When hoisted up over a cart, or other proper place to empty it, the latch will be withdrawn from the catches *a*, when the bottom will fly open and permit the contents to drop down into the proper receptacle for them, when the tray may be replaced in its position in the basin, the bottom door having been first closed again. The water, on entering the basin, will first fall into chamber a^1, where a large part of the solid matter will be deposited, and then will flow through the perforated diaphragm into chamber a^2, the diaphragm acting to retard the passage of the solid matter and aiding to precipate it upon the bottom. The grating *c* above the diaphragm C is curved over toward chamber a^1, and holds within it any light material that would float upon the surface of the water. A second grating, I, somewhat finer than *c*, is placed over the overflow side A^3, so as to retain in chamber a^2 any light material that might pass through *c*.

Having thus described my invention, I desire to claim—

A sewer-trap, A A^1 A^2 A^3, having a hinged bottom, B, dividing diaphragm C, with its top grating *c*, and adjustable throat-pieces D, and guard-piece E, all arranged and constructed as herein shown and described, and for the purpose set forth.

This specification signed this 14th day of May, 1874.

E. D. CULVER.

Witnesses:

ANTON C. CRONDAL,

FRANKLIN BARRITT.