

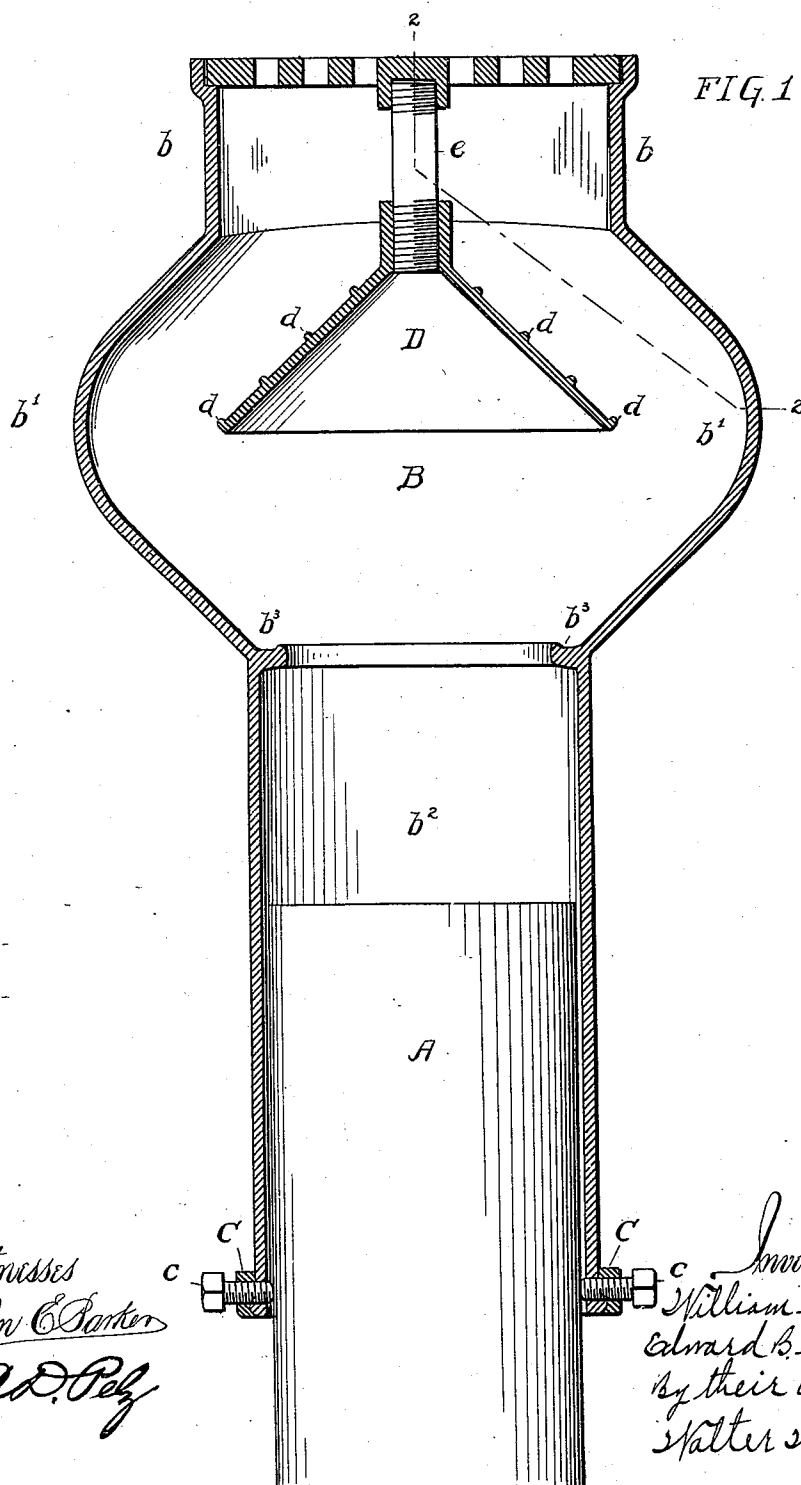
(No Model.)

2 Sheets—Sheet 1.

W. S. & E. B. CLARK.
ADJUSTABLE DRAIN AIR VENT BOX.

No. 549,627.

Patented Nov. 12, 1895.



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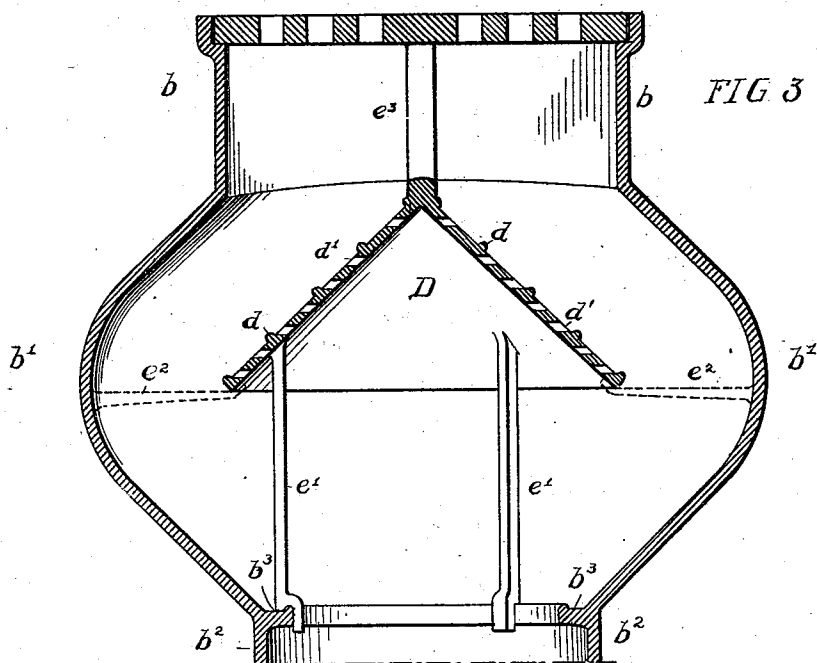


FIG 3

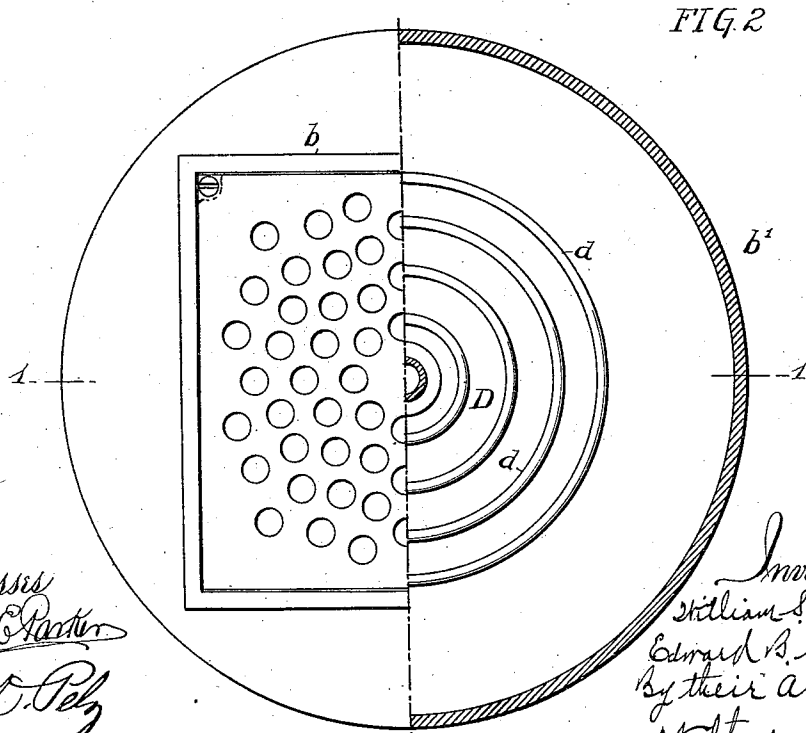


FIG 2

Witnesses
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By their attorney
Walter S. Calhoun

UNITED STATES PATENT OFFICE.

WILLIAM S. CLARK AND EDWARD B. CLARK, OF PHILADELPHIA,
PENNSYLVANIA.

ADJUSTABLE DRAIN AIR-VENT BOX.

SPECIFICATION forming part of Letters Patent No. 549,627, dated November 12, 1895.

Application filed June 22, 1894. Serial No. 515,435. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM S. CLARK and EDWARD B. CLARK, citizens of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Adjustable Drain Air-Vent Boxes, of which the following is a specification, reference being had therein to the accompanying drawings.

Our invention relates to certain improvements in drain-inlets, and has for its object to so construct and arrange the inlet-box that it may be adjustably secured to the conducting-pipe and be readily adjusted to bring its upper face flush with the surface to be drained.

A further object of our invention is to prevent the entrance of sticks or wire or similar articles to the trap, and so avoid the clogging of the same.

In the accompanying drawings, Figure 1 is a sectional elevation on the line 1 1, Fig. 2, of a drain-inlet box constructed in accordance with our invention. Fig. 2 is a plan view of the same, partly in section, on the line 2 2, Fig. 1; and Fig. 3 is a view similar to Fig. 1, illustrating a modification of our invention.

Referring to the drawings, A represents the upper portion of the drain-pipe which leads from the inlet-box B to the sewer or other point of discharge. The inlet-box B has preferably a squared top *b*, for convenience in setting the bricks or other surface paving, while its main body portion *b'* and its lower neck *b²* are preferably circular in form. At the lower end of the neck is preferably placed a strengthening-ring C, through which and the neck proper extends a number of set-screws *c*, the inner ends of which impinge upon the periphery of the drain-pipe A.

The drain-pipes usually extend in a vertical or nearly vertical line from an underground main drain for a distance of some five feet or more and are connected to the main drain by a trap of ordinary construction. The upper end of the drain-pipe is brought up nearly level with the surface, and when an inlet-box of the ordinary construction is to be attached it is usually necessary to cut

away more or less of the upper end of the pipe to make the connection, and if the pavement settles any the box must be disconnected and the pipe again cut to lower the inlet-box to the level of the pavement. By attaching the box to the drain-pipe, in accordance with our invention, these difficulties are obviated, the drain-pipe need not be cut or finished, and the box may be raised or lowered in the pipe by merely loosening the set-screws and adjusting it to the required position.

A further difficulty which we have found with inlet-boxes is that any sticks, wire, or similar articles which may pass through the top openings fall immediately to the connecting-trap and form obstructions, which soon cause the trap to fill up, making necessary the removal of the entire drain-pipe. To prevent the entrance of articles which cannot pass through the trap, we provide a circular conical shield D, situated within the main body of the inlet-box immediately below the openings of the grating, and so arranged that any long article, as a stick or iron, will be prevented from passing below the shield, and if a shorter article does pass it will be caught by an annular gutter *b³*, formed within the box at the upper end of the neck *b²*. The shield is provided with a series of annular ribs or knobs *d*, which will engage the inserted end of any stick or wire and prevent its passage over the edge of the shield, while in order to facilitate the escape of air we may provide a series of openings *d'* through the shield, as shown in Fig. 3, the openings being arranged in a horizontal line to prevent the passage of solid material. The shield is supported in any suitable manner within the box, preferably by attaching it at its apex to a rod or tube *e*, depending centrally from the upper grating; or, as shown in Fig. 3, the shield may have a series of supporting-legs *e'*, adapted to rest on the gutter or rim *b³*. In this case the shield has preferably a vertical bar extending from its apex to the grating to hold it in place and to form a convenient handle for its removal. The shield might also be supported by a number of radial arms *e²*, projecting from the sides of the box, as shown by dotted lines in Fig. 3.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the drain pipe, an inlet box B having a main body portion b' of greater diameter than the drain pipe and a lower neck portion b^2 adapted to fit over and be secured to the drain pipe, an annular gutter b^3 , and a conical shield within the inlet box substantially as specified.

2. The combination of the drain pipe, an inlet box B having a main body portion b' of greater diameter than the drain pipe and a neck portion b^2 adapted to fit over the upper

end of the drain pipe, a strengthening ring C at the lower end of the neck portion, set screws c extending therethrough and securing the neck portion to the drain pipe and a conical shield D situated within the inlet box and extending entirely over the mouth of the drain pipe, substantially as specified.

In testimony whereof we affix our signatures in the presence of two witnesses.

WILLIAM S. CLARK.

EDWARD B. CLARK.

Witnesses:

ALEX. D. LAUER,

R. L. GOZE.