

L. A. GOUCH.
Improvement in Sewer-Basin Traps.
No. 128,138. Patented June 18, 1872.

Fig. 1.

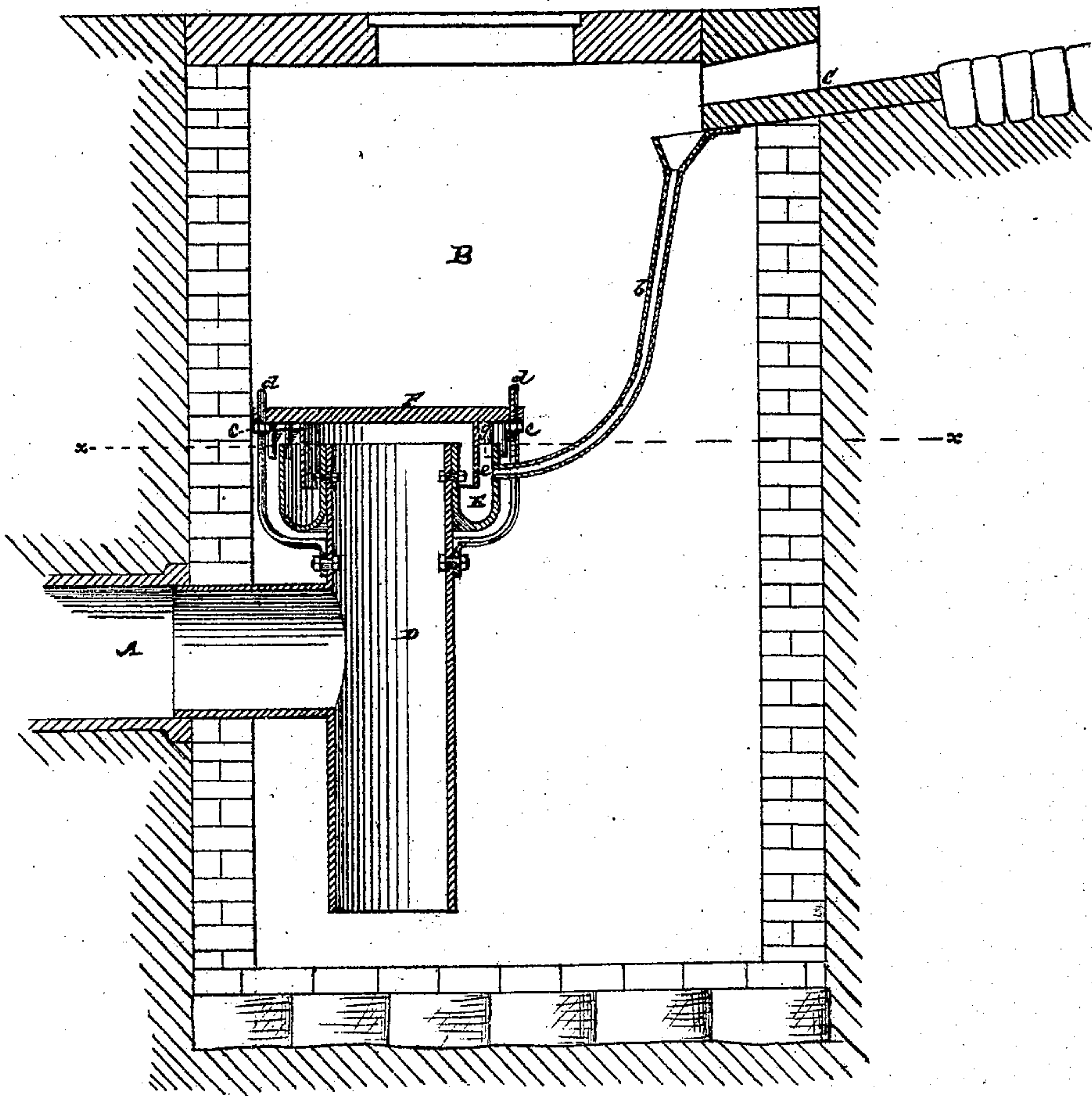
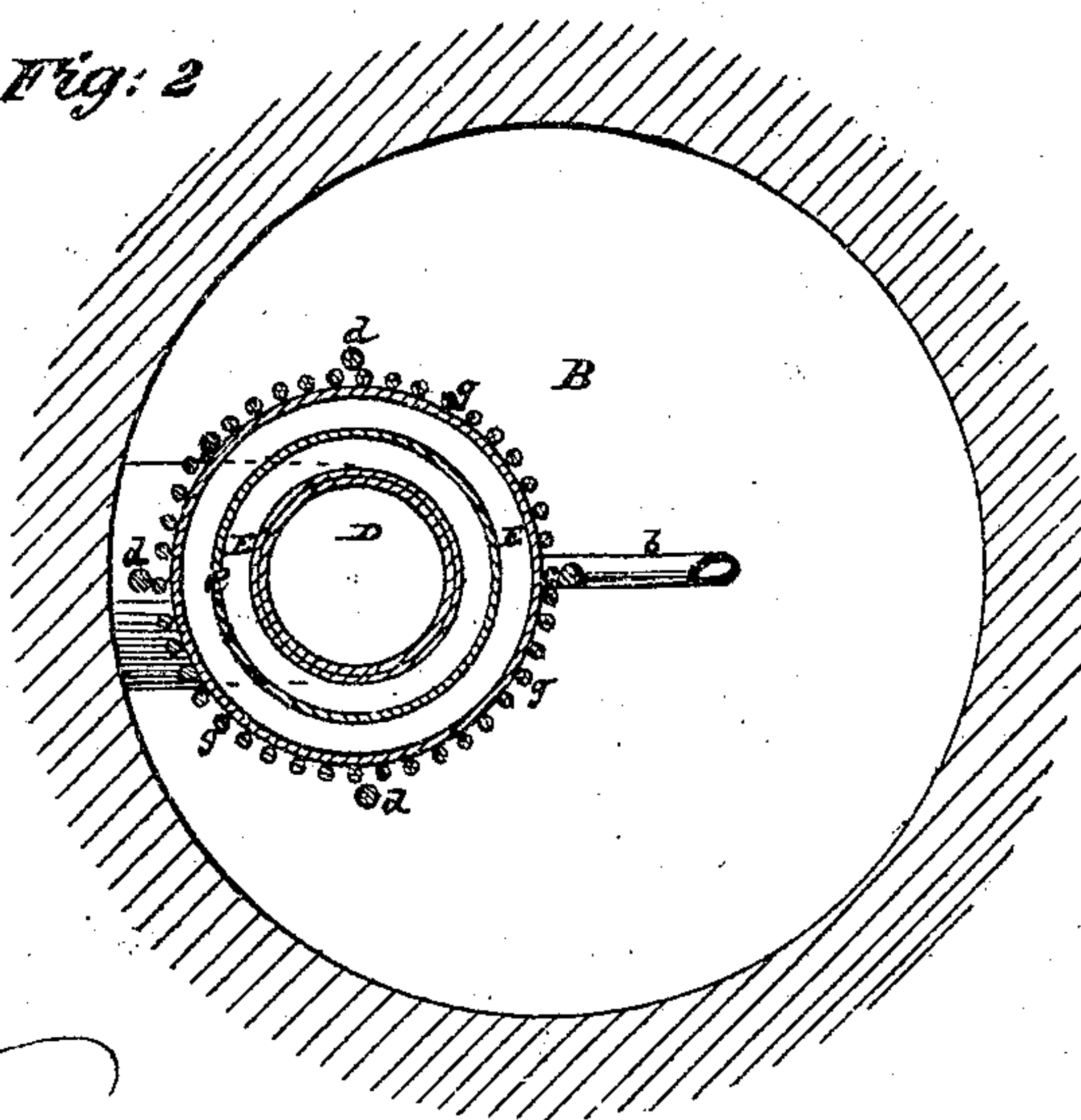


Fig. 2.



Witnesses:

Fred H. Hays
Herb. Hays

L. A. Gouch

UNITED STATES PATENT OFFICE.

LYMAN A. GOUCH, OF YONKERS, NEW YORK.

IMPROVEMENT IN SEWER-BASIN TRAPS.

Specification forming part of Letters Patent No. 128,138, dated June 18, 1872.

Specification describing an Improvement in Sewer-Basin Traps, the invention of LYMAN A. GOUCH, of Yonkers, in the county of Westchester and State of New York.

This invention relates to traps to be placed within the basins or wells of sewers, for preventing the escape of obnoxious air or gases from the sewer without restricting, or at least necessarily so, the ventilation of the well. To this end an upright pipe, open above as well as below, to provide an upper outlet in case of the lower outlet from the basin becoming choked, is connected intermediately of its height with the sewer-pipe. The invention consists in means and peculiarities of construction connected with the upright pipe, whereby the latter, without the aid of a float or valve, is sealed against the escape of effluvia at or through its top by reason of a water-joint at such portion, and such outlet kept clear or open for water from the well when rising in the latter by the choking of the lower outlet, but not admitting of dust, dirt, or obstacles entering the upright pipe from above.

In the accompanying drawing which forms part of this specification, Figure 1 represents a vertical section of a sewer-well with my improved trap applied thereto. Fig. 2 is a horizontal section of the same at the line *x x*.

Similar letters of reference indicate corresponding parts in both figures of the drawing.

A is the sewer-pipe, and B the well or basin into which the water runs from the gutter C. D is an upright pipe, open at both ends, and with which, at a point intermediately of its height, the sewer-pipe connects. Ordinarily—that is, when there is no clogging or choking by mud or otherwise—the water and accompanying matter entering the well pass up through the lower end of the pipe D, which end is situated at some little distance from the bottom of the well, and, rising in the pipe D, pass off by the sewer-pipe A to the sewer; but should the lower end of the pipe D become choked, then the water will rise in the basin and pass off to the sewer-pipe through the upper outlet or open end of the pipe D. As it is necessary, however, that the upper end of the pipe D should be closed against the escape of obnoxious air or gases from the sewer—also dust, dirt, or obstacles be excluded from entering said pipe—and

as a floating valve for such purposes is apt to stick, and, at best, but imperfectly excludes effluvia, I arrange around the upper end of the pipe D, preferably by bolting the same to the pipe, a channel or trough, E, which, for the purpose of forming a water-joint at such part, is supplied with water by a small pipe, *b*, leading up to the gutter-stone or gutter C, so as to catch water from the latter though only produced by light rains or streams. Arranged over the upper end of the pipe D, at some little distance from it, so as to leave a free space or passage over the pipe, is a cap or plate, F, which may rest upon nuts *c* that are fitted on bracket screw-rods *d*, secured to and projecting upward from the sides of the pipe. This plate F has an inner flange, *e*, projecting from its under side or face, and so arranged as to enter the trough E intermediately of its walls and to a limited distance from its bottom, which latter distance may be regulated by adjustment of the nuts *c*; but otherwise, or when once set, the plate F, with its flange *e*, is immovable, and therefore not liable to stick or get out of order, as is the case with a valve. In this way or by these means a close water-joint is established over or around the upper end of the pipe D, the pipe *b* seldom or never failing to keep the trough E supplied with water, thus excluding the escape of effluvia from the sewer; also dust, dirt, and obstacles from entering the upright pipe; yet the arrangement in no way restricts the free passage of water from the well down through the upper outlet or top end of the upright pipe when the water rises sufficiently high in the well by reason of the choking of the lower outlet. The cap F has a grating, which may be formed of bars *g*, arranged to project downward from the under face of the cap, outside of the trough E, and which may be of wrought iron united with the cap in the process of casting the latter. This grating serves to exclude obstacles from entering and choking the trough E; also, assists in excluding obstacles from passing into the pipe through its upper end. The supply-pipe *b*, from the gutter to the trough, may be fitted with a strainer, to prevent straw or other obstacles from entering it.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The water-supply pipe *b* from the gutter, in combination with the trough E at the upper end of the pipe D, and the stationary cap or plate F with its flange *e*, substantially as and for the purpose or purposes herein set forth.

2. The grating *g*, in combination with the cap or plate F and flange *e*, essentially as described.

3. The screw-rods *d* and nuts *c*, in combina-

tion with the cap or plate F, flange *e*, and trough E.

4. The trough E made in a separate piece from the pipe D, in combination with the removable cap or plate F and the pipe D, essentially as described.

L. A. GOUCH.

Witnesses:

FRED. HAYNES,
R. E. RABEAU.