(No Model.)

W. H. SIMPKINS.

SEWER PIPE BACK PRESSURE VALVE.

No. 353,888. Patented Dec. 7, 1886.

Fig. 1.

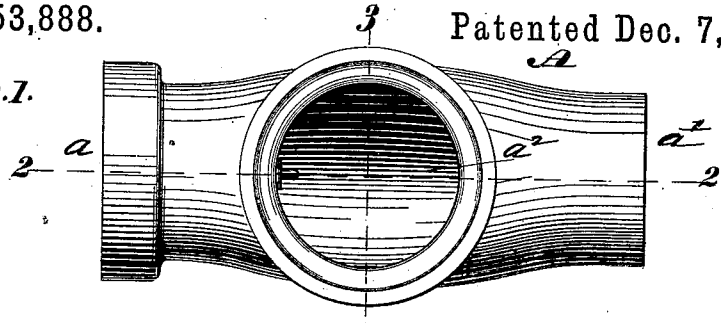


Fig. 2.

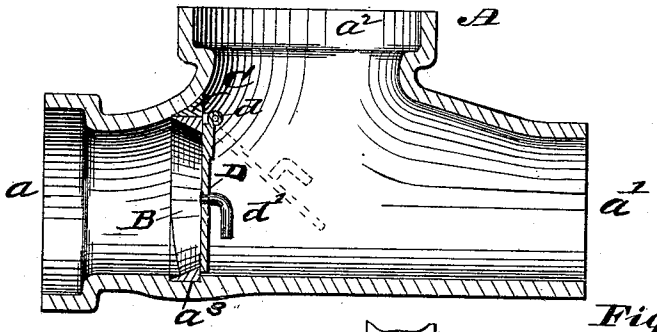


Fig. 3.

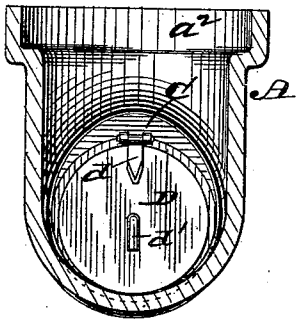
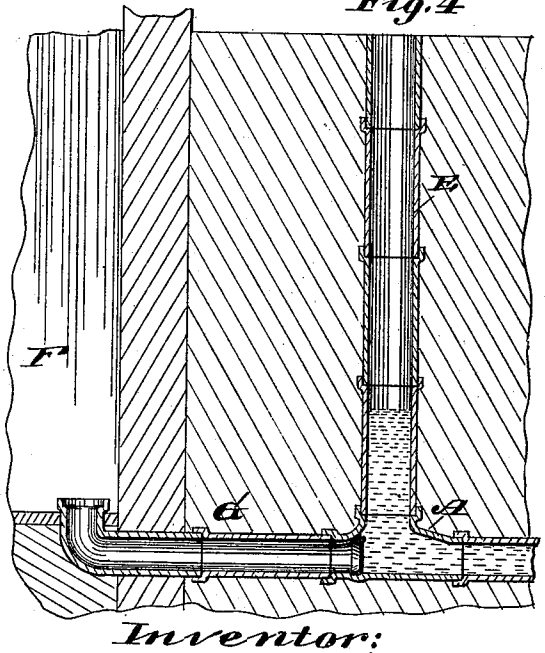


Fig. 4.



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atty

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UNITED STATES PATENT OFFICE.

WILLIAM H. SIMPKINS, OF ST. LOUIS, MISSOURI.

SEWER-PIPE BACK-PRESSURE VALVE.

SPECIFICATION forming part of Letters Patent No. 353,883, dated December 7, 1886.

Application filed August 23, 1886. Serial No. 211,594. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. SIMPKINS, of St. Louis, Missouri, have made a new and useful Improvement in Sewer-Pipe Back-Pressure Valves, of which the following is a full, clear, and exact description.

The improvement is in effect a new article of manufacture—namely, a section of clay pipe having a metallic valve-seat and valve, the valve-seat being shaped and cemented into a bearing in the pipe, substantially as is hereinafter more particularly described, and forming an article of merchandise ready for insertion in the connection leading from the house to the sewer.

In the annexed drawings, making part of this specification, Figure 1 is a plan of the improvement. Fig. 2 is a vertical longitudinal section on the line 2 2 of Fig. 1. Fig. 3 is a vertical cross section on the line 3 3 of Fig. 1, and Fig. 4 is a vertical section illustrating the application of the improvement.

The same letters of reference denote the same parts.

A represents the section of clay pipe, which, so far as molding and burning it is concerned, is constructed in the same manner as other earthen pipes. Its shape is also the same as that now in use, saving as it is modified by the improvement. The inlet to the section is at *a*, the outlet in the direction of the sewer is at *a'*, and at a^2 is the opening to the ventilating-pipe E.

B represents the valve-seat. It is fitted into a groove, a^3, made for it in the lower portion of the pipe A, between the inlet *a* and the opening a^2, by which the lower portion of the valve-seat is secured in the pipe. The dropping of the valve-seat into the groove leaves an opening between the upper portion of the valve-seat and the shell of the pipe above it. This opening is filled with cement, C, which serves both to close the opening and also to brace the valve-seat at its upper part, and so that any flow through the inlet *a* against the valve-seat cannot dislodge the valve-seat from its position in the pipe, and so that from the opposite direction the contents of the sewer cannot escape backward past the valve-seat between it and the shell of the pipe. The valve D is hinged at *d* to the valve-seat. It closes against the valve-seat when there is a back-pressure from the sewer, in which case the flow rises into the pipe E, Fig. 4. In this last-named view, F represents a cellar, and G represents the line of pipe leading from the cellar to the sewer, which is not shown. The position of the valve when opened is indicated by the broken lines in Fig. 2. The valve is provided with a handle, *d'*, to enable the valve to be opened by means of a hook introduced through the opening a^2.

I desire not to be limited to an earthen pipe, A, as it may be made of other material, such as cast-iron.

I claim—

The herein-described new and useful article of manufacture, consisting of the earthen pipe A, the valve-seat B, and valve D, said valve-seat at its lower end being held in a depression or groove in the pipe, and at its upper end being secured by the wedge C, substantially as described.

WILLIAM H. SIMPKINS.

Witnesses:
C. D. MOODY,
J. W. HOKE.