No. 759,050. PATENTED MAY 3, 1904.

E. G. WATROUS.

COMBINED FITTING FOR SOIL PIPES AND REVENT PIPES.

APPLICATION FILED JULY 21, 1902.

NO MODEL.

Fig. 1

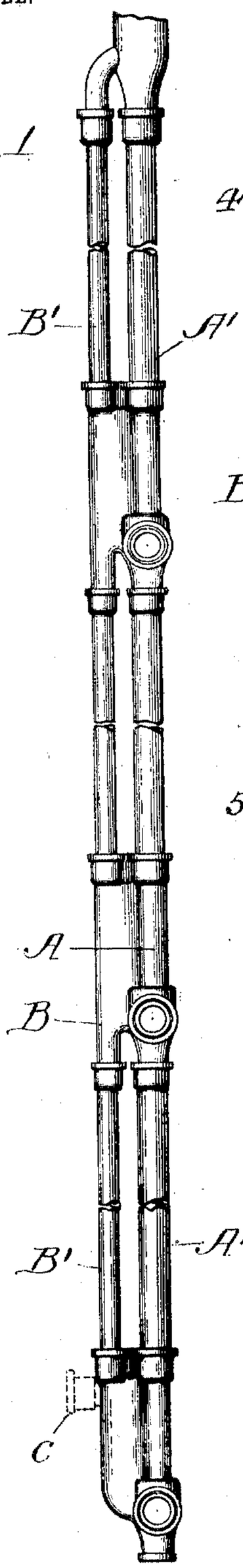


Fig. 2

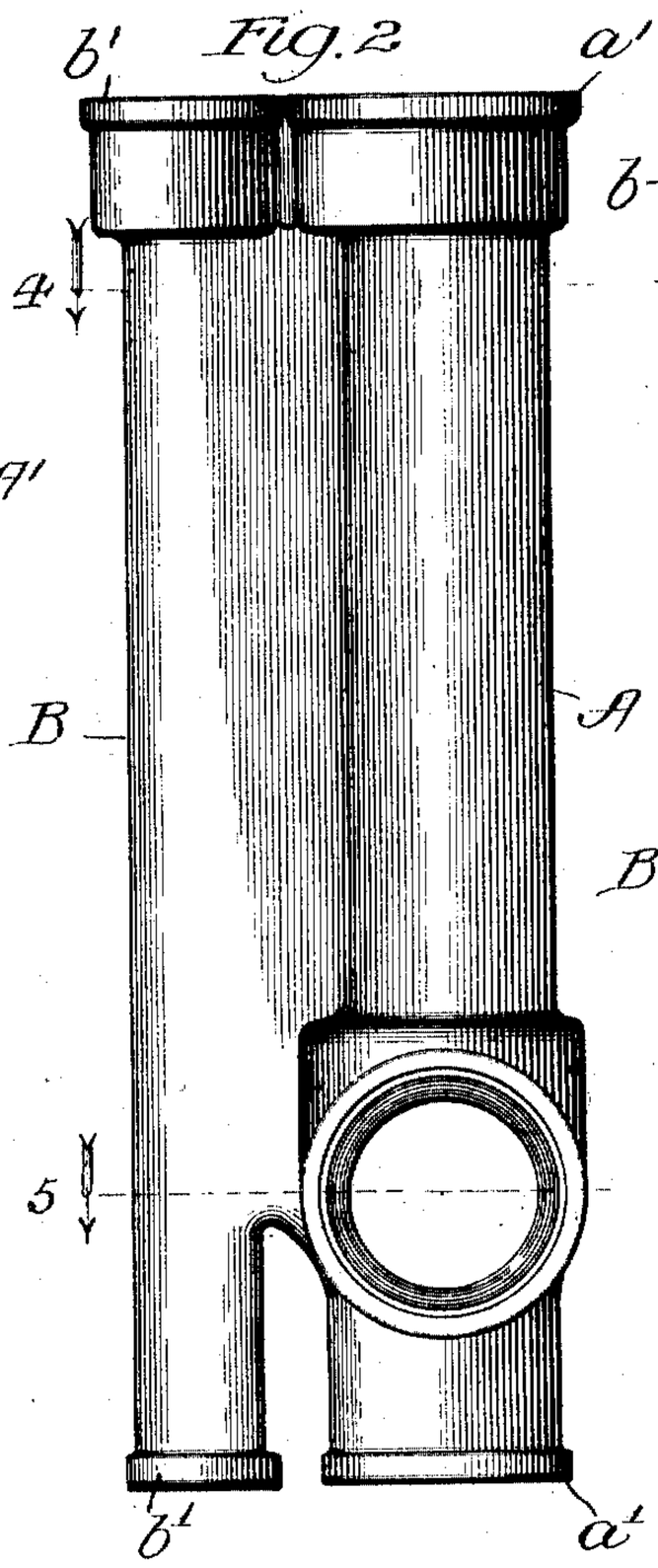


Fig. 3

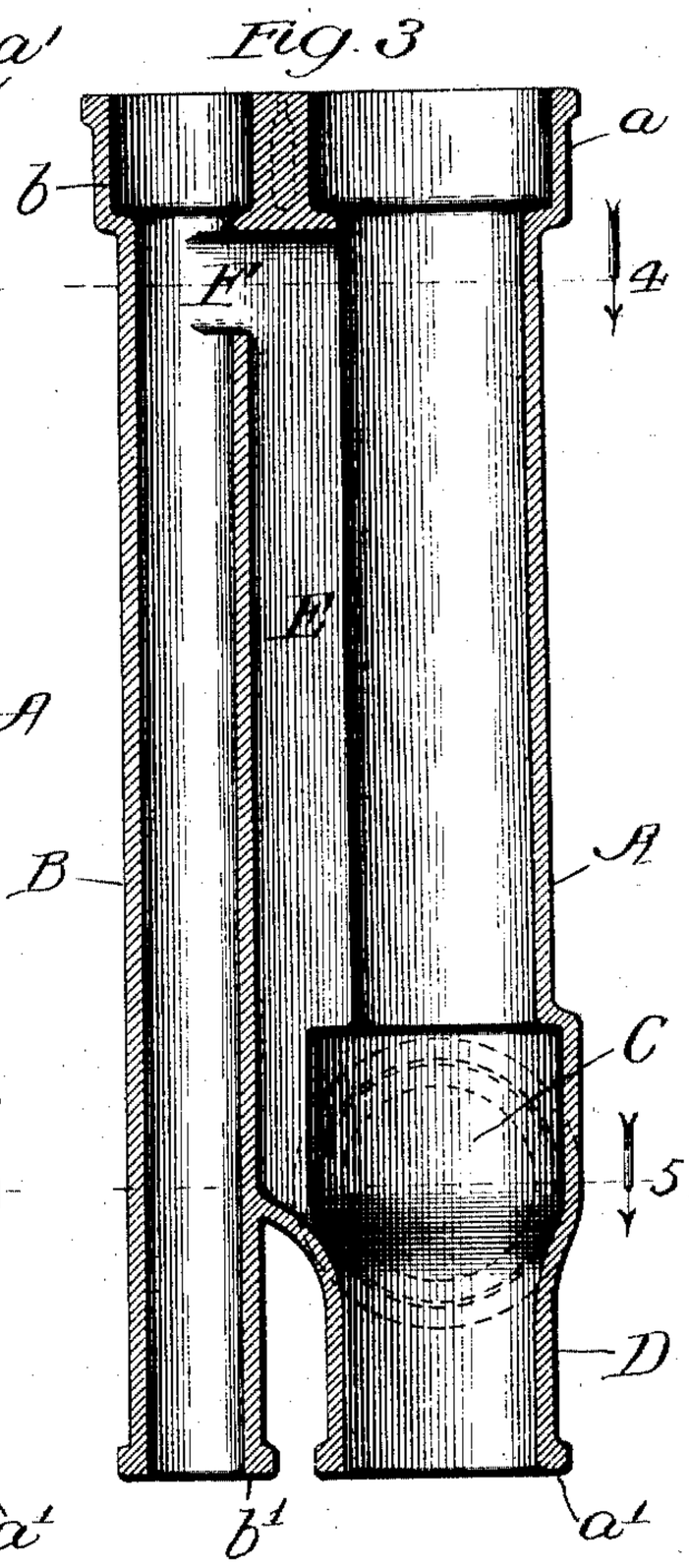


Fig. 4

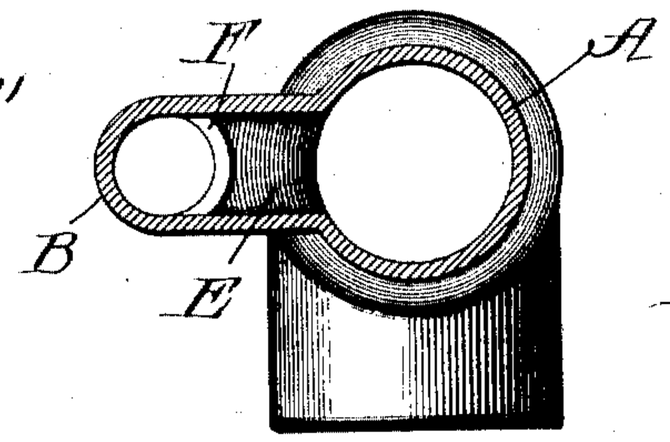
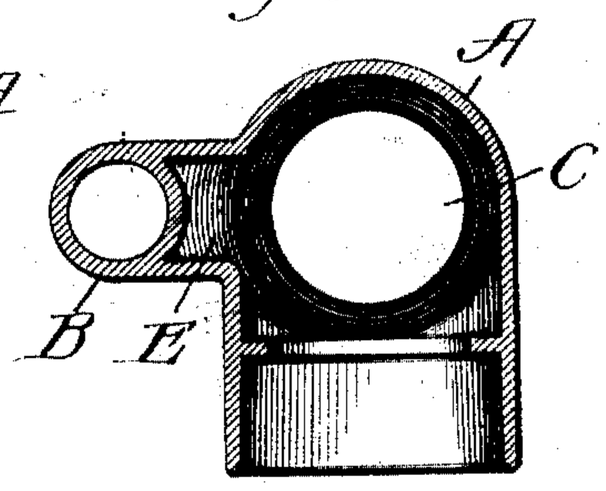


Fig. 5



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No. 759,050. Patented May 3, 1904.

UNITED STATES PATENT OFFICE.

EARL G. WATROUS, OF CHICAGO, ILLINOIS.

COMBINED FITTING FOR SOIL-PIPES AND REVENT-PIPES.

SPECIFICATION forming part of Letters Patent No. 759,050, dated May 3, 1904.

Application filed July 21, 1902. Serial No. 116,457. (No model.)

To all whom it may concern:

Be it known that I, EARL G. WATROUS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in a Combined Fitting for Soil-Pipes and Revent-Pipes, of which the following is a description, reference being had to the accompanying drawings, forming part of this specification.

My invention has for its object the provision of a fitting of this character in which the fitting for the soil-pipe and the fitting for the revent-pipe shall be formed of a single casting, in which each fitting shall form a straight and unbroken continuation of the vertical pipe of which it is adapted to form a part, in which efficient provision against siphoning of connected fixtures is made, and in which simplicity, compactness, and economy of construction are attained in a maximum degree.

In the accompanying drawings, Figure 1 is an elevation of a stack of soil and revent pipes equipped with my improved fittings, the sections of the pipes intermediate the fixtures being broken away to lessen the length of the view; Fig. 2, a detail elevation of a single fixture disconnected from the stack of pipes; Fig. 3, a middle vertical section of the fitting shown in Fig. 2; Fig. 4, a cross-section of the same on the line 4 4 of Figs. 2 and 3, and Fig. 5 a cross-section on the line 5 5 thereof.

The same letters of reference are used to indicate corresponding parts in the several views.

As illustrated in the drawings, my combined fitting comprises two parallel tubular sections A B, cast integral with each other and adapted to be interposed directly in a vertical stack of soil and revent pipes A′ B′, the section A of the fitting thus constituting a portion of the vertical soil-pipe and the section B a portion of the vertical revent-pipe. At their upper ends the two sections of my improved fitting are provided with the usual hubs *a b* to receive the lower ends of the pipe-sections immediately above them, while their lower ends *a′ b′* are adapted to fit into similar hubs upon the upper ends of the pipe-sections immediately beneath them, as usual.

At a point below its middle the section A of the fitting is enlarged to form within it a chamber C of greater size than the regular bore of the fitting, and from the lower portion of this enlargement of the section projects the hub D, by which the pipe leading to the adjacent fixture is connected to the fitting, such pipe thus discharging into the lower portion of the enlarged chamber C. There is also formed within the fitting-casting in the space between the upper portions of the tubular sections A and B a vertical chamber E, which constitutes a lateral extension of the tubular bore of the section A, and this chamber is connected at its upper end with the revent-section B of the fitting by the opening F, this opening when the fitting is assembled in a stack of pipe being located above the water-level of the adjacent fixture.

The enlarged chamber C of the soil-pipe section of the fitting provides an air-space around the vertical bore of said section at the point at which the adjacent fixture discharges into the pipe, and this enlarged air space or chamber is in full and free communication with the revent-pipe through the vertical chamber E and opening F, so that it is impossible for any downward rush of water through the soil-pipe no matter how completely it may fill the pipe to siphon the fixture connected to the hub D of the fitting and discharging therein. The vertical chamber E will of itself by the free communication which it affords between the revent-pipe and the point of connection of the fixture with the soil-pipe section of the fitting largely tend to prevent siphoning of the fixture even in the absence of the enlarged chamber C; but the latter increases the effectiveness of the chamber E in preventing such siphoning.

The formation of the fitting in a single casting with straight soil-pipe and revent-pipe sections parallel with each other and adapted to be interposed directly in the soil and revent pipes and form continuations thereof reduces to a minimum the number of connections to be made and joints to be calked and simplifies and cheapens the construction, as well as increasing its compactness as compared with fittings now commonly

in use, while the provision of the vertical chamber E between the vent-pipe and the soil-pipe and opening throughout its length into the latter requires the employment of only two cores in casting the fitting as compared with the necessary employment of three cores in casting fittings, wherein the vertical chamber between the two pipes is separated from the soil-pipe throughout its length and simply opens into said pipe at its lower end.

The revent-sections of the fittings may of course be provided with the usual hubs *c* for the connection of vent-pipes of fixtures, a single one of such hubs being shown in dotted lines on the lower fitting in Fig. 1, and the hubs D of the soil-pipe sections of the fittings may be located upon either side of the section or upon both sides, as usual.

Having thus fully described my invention, I claim—

1. A combined fitting for soil-pipes and revent-pipes, comprising two parallel tubular sections cast integral with each other and adapted to be interposed directly in the soil-pipe and revent-pipe and form vertical portions thereof, the interiors of the two sections of the fitting being directly connected with each other by an opening near their upper ends, and the soil-pipe section of the fitting being provided below said opening with a connecting-hub for the adjacent fixture; substantially as described.

2. A combined fitting for soil-pipes and revent-pipes, comprising two parallel tubular sections cast integral with each other and adapted to be interposed directly in the soil-pipe and revent-pipe and form a part thereof, the interiors of the two sections being directly connected with each other by an opening near their upper ends and the soil-pipe section of the fitting being provided below said opening with an enlarged chamber and with a hub connection for the adjacent fixture opening into said chamber; substantially as described.

3. A combined fixture for soil-pipes and revent-pipes, comprising two tubular sections cast integral with each other and adapted to be interposed directly in the soil and revent pipes and form a part thereof and having a vertical chamber connected at its upper end with the revent-pipe and in free communication with the soil-pipe throughout its length, and the soil-pipe section of the fitting having a hub connection for the adjacent fixture opening into said section at the lower end of said vertical chamber; substantially as described.

4. A combined fixture for soil-pipes and revent-pipes comprising two parallel tubular sections cast integral with each other and adapted to be interposed directly in the soil and revent pipes and form part thereof, the interiors of the two sections being directly connected with each other near their upper ends by an opening and the soil-pipe section of the fitting being provided with an enlarged chamber below said opening and with a vertical chamber connecting said enlarged chamber with said opening and having a hub connection for the adjacent fixture opening into said enlarged chamber; substantially as described.

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