

(No Model.)

J. BRUNGARD.
SEWER PIPE AND TRAP.

No. 302,318.

Patented July 22, 1884.

Fig. 1.

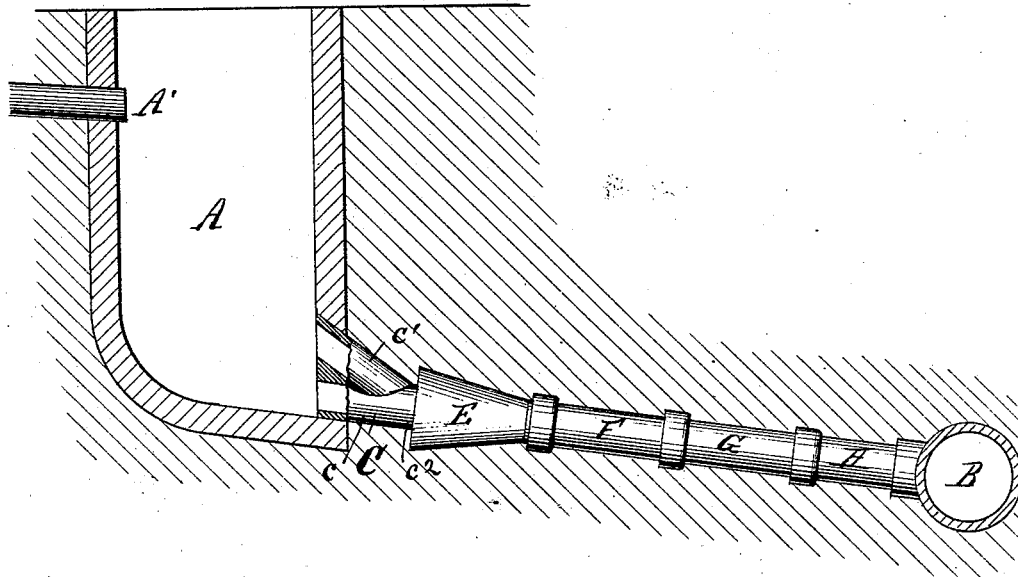
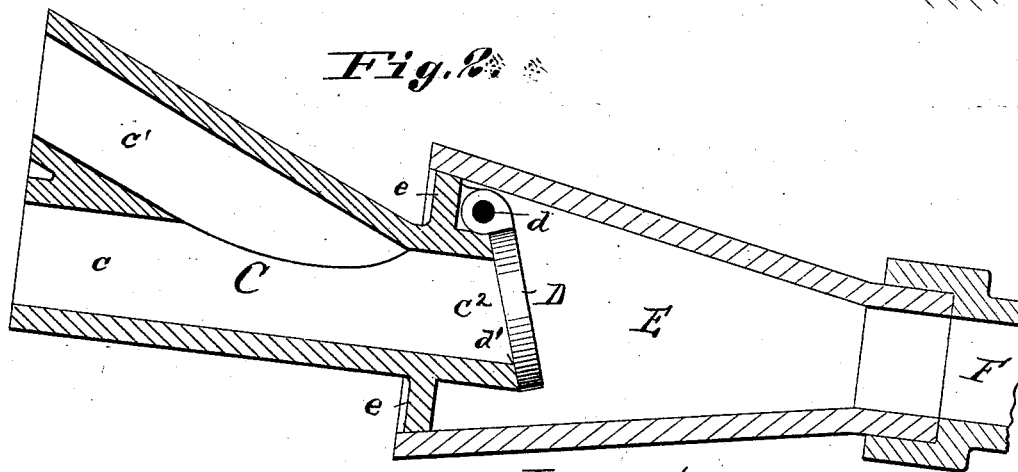


Fig. 2.



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JOSEPH BRUNGARD, OF ST. LOUIS, MISSOURI.

SEWER PIPE AND TRAP.

SPECIFICATION forming part of Letters Patent No. 302,318, dated July 22, 1884.

Application filed December 11, 1883. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH BRUNGARD, a citizen of the United States, residing at St. Louis, and State of Missouri, have invented a new and useful Improved Sewer Pipe and Trap, of which the following is a specification.

My invention is designed to connect privy-vaults, cesspools, drainage-pipes, &c., to the main sewer, for purposes of carrying off the excreta, deposits, and impure matter; also, to insure a most complete drainage or discharge of the waste, at the same time prevent the return of the foul gases, unwholesome odors, and "floodings" from the main sewer; also, prevent rats, mice, &c., passing from the main sewer through the said sewer pipe and trap connections. I accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows my improved sewer pipe and trap as connecting a privy-vault with the main sewer, the vault and the double-jointed pipe being shown in section, while the remaining sections of pipe leading to the sewer are shown in side elevation. Fig. 2 is an enlarged sectional elevation of my improvement, showing more clearly the double-jointed pipe, its trap, and the cone or bell shaped section of pipe.

A represents a privy-vault or waste or drain, from which drainage and the carrying off of the deposits, &c., are required.

A' represents the waste-pipe usually communicating with the vault.

B represents the main sewer, into which the waste deposits are to be drained and carried off.

My invention relates more particularly to the sewer pipe and trap connecting the privy-vault, cesspool, or drain to the main sewer, and is as follows: I provide a double-jointed pipe-section, C—that is, consisting of the branch pipes *c c'*, the one top of the other, and both communicating to the same outlet at *c''*, as shown. Both the branch pipes *c c'* have their outlet *c''* controlled by a self-closing valve or trap, D, which for this purpose is hinged at *d* on an incline with relation to the bevel-face *d'* of said outlet. (See Fig. 2.) This trap opens only in an outward direction by the

force of the drainage taking place, and closes automatically against its seat to prevent the return of any current, also foulness from the sewer.

E is a cone or bell shaped section of pipe, its enlarged end fitting over and properly cemented to an annular collar, *e*, that projects from and forms part of the pipe-section C, as shown. By means of this collar and forming the section of pipe E cone or bell shaped, the latter can inclose the trap, gives same sufficient space to open and close; also, establishes communication from either of the branch pipes or section of pipe C through E, as indicated. At the end of the section of pipe E, I connect the usual further sewer-pipe sections (marked F G H) with the main sewer.

The branch pipes *c c'*, I connect to privy-vaults near the lower portions thereof, as indicated in Fig. 1, and otherwise the entire connections of pipes from the vault to the sewer are preferably on an incline, as shown.

By the use of my improvement, in case the lower branch pipe, *c*, becomes choked, filled with rubbish, or is otherwise ineffective, the upper branch, *c'*, will still permit and insure the drainage to take place.

To an ordinary drain-pipe the section C, with only a single branch, *c*, can be applied, the trap operating and the remaining sections of pipe being the same.

My improvement has the further advantage that the sections of pipe marked C E and the essential part of the trap can be made of fire-clay or manufactured of the same material usual in sewer-pipes.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the sections of pipe C and E, the former consisting of the branch pipes *c c'*, one above the other, and jointly communicating to a common outlet, *c''*, having the bevel-face at *d'* and the annular collar at *e*, the latter section of pipe being "bell-shaped," its enlarged end fitting over said collar and inclosing a self-closing trap, D, to operate substantially as and for the purposes set forth.

2. In combination with a privy-vault, cesspool, or waste-drain, the section of pipe C,

consisting of the double branches *c c'*, having
outlet *c'*, its bevel-face *d'*, the trap D, hinged
to said face, the section of pipe E, made bell
shape to join over an annular collar, *e*, on the
5 pipe C and inclosing said trap, and the pipe
communication to sewer or the like, substan-
tially as set forth.

In testimony of said invention I have here-
unto set my hand.

JOSEPH BRUNGARD.

In presence of—

WILLIAM W. HERTHEL,
JOHN W. HERTHEL.