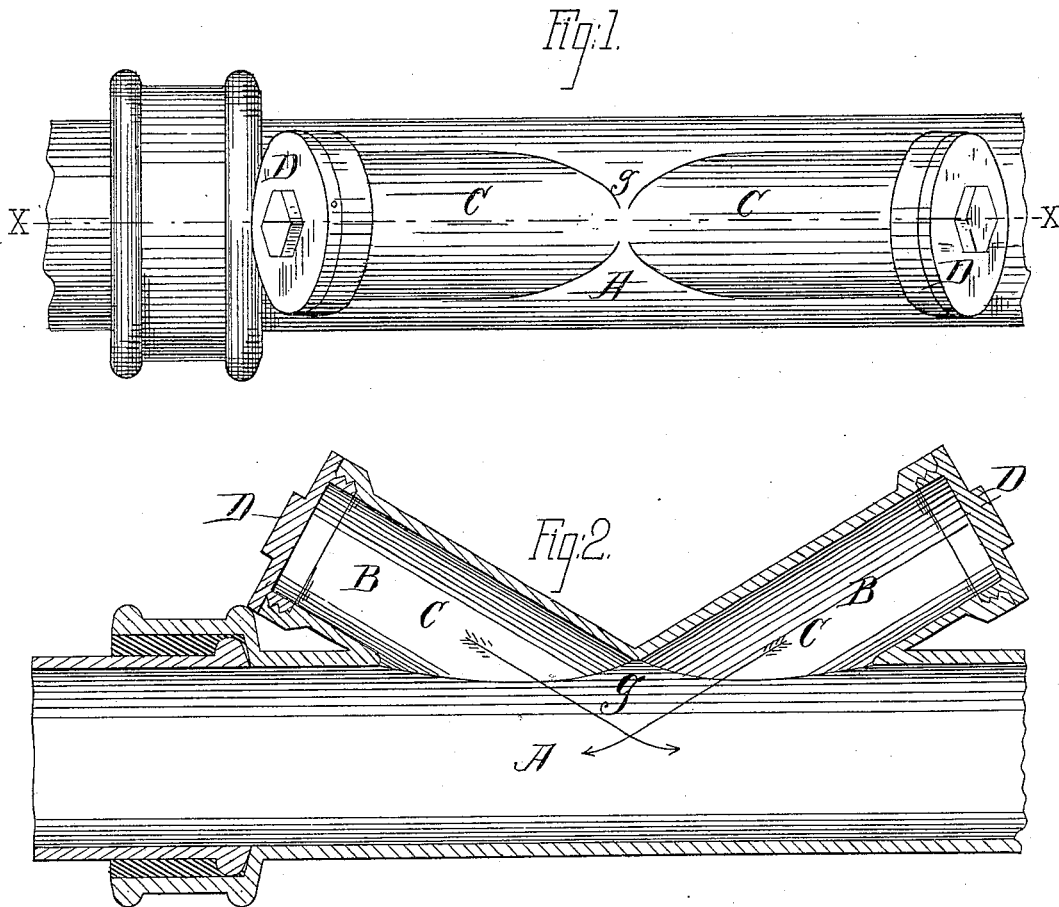


(No Model.)

J. BARRETT.
SOIL AND WASTE PIPE.

No. 263,461.

Patented Aug. 29, 1882.



Witnesses:
Wm. S. Bellows
Marion P. Brown

Inventor,
JAS. BARRETT,
By *Brown & Burr,*
Attorneys.

UNITED STATES PATENT OFFICE.

JAMES BARRETT, OF BOSTON, MASSACHUSETTS.

SOIL AND WASTE PIPE.

SPECIFICATION forming part of Letters Patent No. 263,461, dated August 29, 1882.

Application filed December 23, 1881. (No model.)

To all whom it may concern:

Be it known that I, JAMES BARRETT, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Soil and Waste Pipes, of which the following is a full, clear, and exact description.

Soil and drain pipes are in sections, which are joined together to make the length required, and, in order that the inside of the pipe may be cleaned from time to time without requiring its sections to be separated from each other, certain of the sections have a hand-hole in their side, closed by a cover or plug suitably packed to prevent leakage of gases, &c., but which, being removed, opens its hole, and thus enables the pipe to be cleaned for a portion of its length from such hole. These hand-holes, as heretofore made, are round, and in some cases each runs directly and squarely through the thickness of the pipe, and in other cases each is a passage making a part of the pipe and arranged at an angle of inclination thereto, but so as to approach as closely as possible the direction of the pipe itself, keeping in view the necessity of applying and removing its cover or stopper. The construction of a hand-hole as last stated limits the cleaning of the pipe to one direction of its length from the hole, which direction is that of the passage of the hand-hole into the pipe, whereas with the construction of a hand-hole as first stated the pipe can be cleaned in both directions therefrom. Notwithstanding this limitation of the cleaning operation in the one as compared with that of the other, it is the hand-hole most preferred, for the reason that the portion of the length of the pipe capable of being reached through it is much greater than is possible through a hand-hole of the other construction, and, as a result, in a given length of pipe less hand-holes are necessary, thus economizing in the cost of the pipes and in the labor and trouble of constructing and of removing the boxing or covering about the pipes, as they are placed for services, for the hand-holes to be reached or got at when desired to clean the pipes.

Although hand-holes with passages into the pipe as above stated are preferable, for the

reasons given, yet it is plain that if the pipes could be worked upon and cleaned in both directions from a given point in the length of the pipes and in either direction therefrom to the extent pipes are capable of being cleaned through hand-holes with passages into the pipe, as above stated, in one direction only, a most important, advantageous, and beneficial result would be secured, and one which would further add to the economy in their manufacture and in the boxings and casings for them, to enable their hand-holes to be reached or got at for the purpose of cleaning the pipes from time to time; and to this end the present invention consists of a soil-pipe having in one and the same section thereof two hand-hole passages, each arranged at an inclination and in opposite directions to the length of and opening into the pipe, all substantially as hereinafter described, reference being had to the accompanying plate of drawings, in which—

Figure 1 is a side view, and Fig. 2 is a central longitudinal section.

In the drawings, A represents a portion of one section of a soil-pipe, and at one end thereof, which pipe, except as to this invention, is made as usual.

B is the hand-hole. The hand-hole B leads by a passage, C, into the pipe, and this passage is arranged at an angle of inclination to the length of the pipe, and running in an opposite direction thereto is a similar passage, C, making another hand-hole, B, both of which preferably open into the pipe in common, as shown at *g*, although they may be arranged to open at different points, preferably near each other, in the same section of pipe. By these inclined hand-holes arranged in opposite directions, the pipe, at a given part and in a given section of its length, is capable of being cleaned in both directions and to the same extent in either direction as pipes having a single hand-hole, B, with passage C, as heretofore, are capable of being cleaned in only one direction, the advantages of which are obvious, and also have been before specially mentioned.

The hand-holes herein described are to be closed with covers or stoppers D, as heretofore.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

5 A soil or drain pipe having in one and the same section hand-holes B, each having a passage, C, arranged at an inclination to the length of the pipe, but in opposite directions to each other, all substantially as and for the purpose described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses. 10

JAMES BARRETT.

Witnesses:

EDWIN W. BROWN,
WM. G. BELLOWS.