

(No Model.)

S. M. FRIEDE.
STOP AND WASTE COCK.

No. 569,967.

Patented Oct. 20, 1896.

Fig. I.

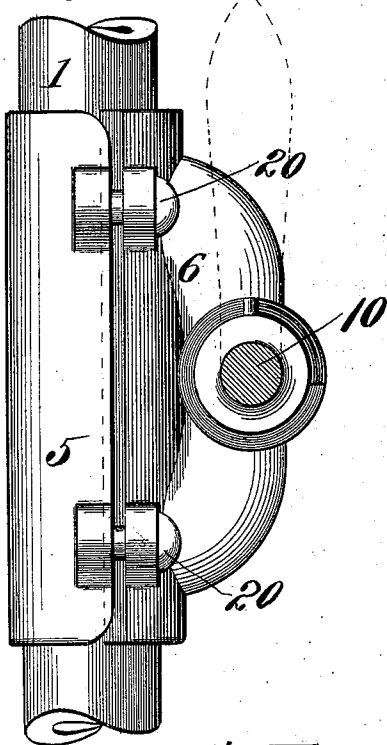


Fig. II.

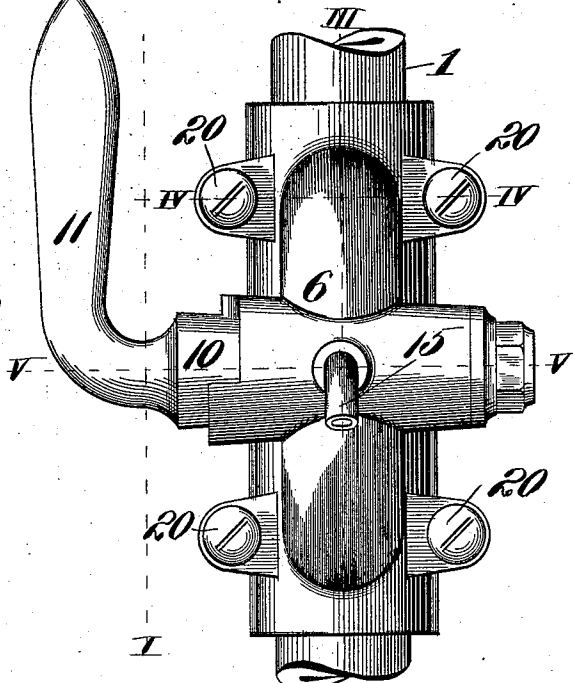


Fig. III.

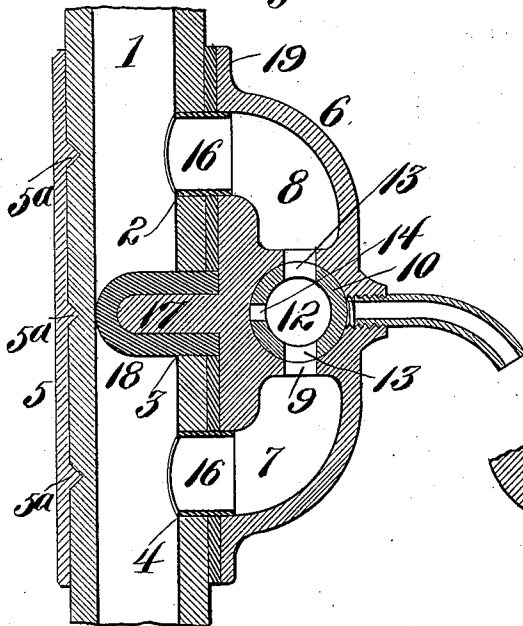


Fig. IV.

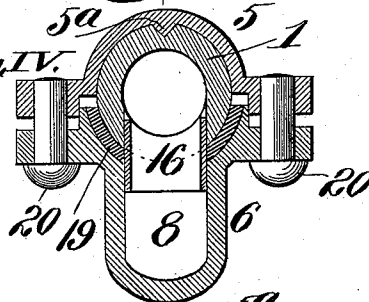
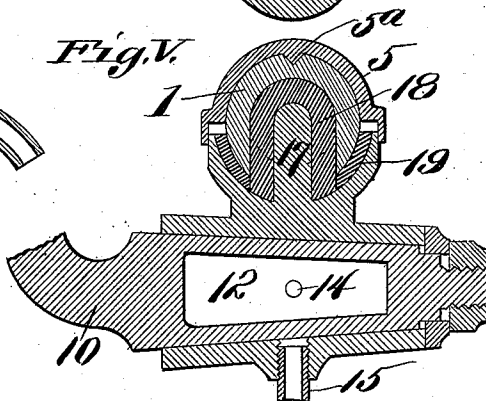


Fig. V.



Attest:
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UNITED STATES PATENT OFFICE.

SAMUEL M. FRIEDE, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-THIRD TO
JOHN W. DONNELL, OF ST. LOUIS, MISSOURI.

STOP AND WASTE COCK.

SPECIFICATION forming part of Letters Patent No. 569,967, dated October 20, 1896.

Application filed January 31, 1893. Serial No. 677,510. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL M. FRIEDE, of Chicago, Cook county, Illinois, have invented a certain new and useful Improvement in Stop and Waste Cocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

My invention relates to an improvement in stop and waste cocks for water-service pipes, the object of the invention being to provide a device of the kind of a simple and efficient construction that can be readily attached to the side of the service-pipe at any point throughout its length without cutting the pipe in two and forming wiped joints, as is the prevailing custom in attaching such cocks to the pipes.

My invention consists in features of novelty hereinafter fully described and pointed out in the claims.

Referring to the drawings, Figure I illustrates a side elevation of my improved stop and waste cock, in which view the handle of the valve-plug is shown removed, on a section-line II, Fig. II. Fig. II is a front elevation of the device. Fig. III illustrates a vertical section taken on line III III, Fig. II. Fig. IV illustrates a horizontal section taken on line IV IV, Fig. II. Fig. V illustrates a horizontal section taken on line V V, Fig. II.

In the drawings, 1 designates a soft-metal pipe, such as lead, and as is commonly used for water service. In one side of this pipe I form three openings 2, 3, and 4.

5 designates the rear member of the cock-housing, and 6 the front member thereof. In the front member 6 is a lower inlet-port 7 and an upper outlet-port 8, and extending from the inlet to the outlet port is a channel 9, the central portion of which is of circular formation, and is designed to receive the valve-plug 10, provided with a handle 11. The valve-plug 10 is provided with a chamber 12, and at opposite sides of the chamber are openings 13, through which the water passes during the ordinary flow of water through the service-pipe. At a mid-distance between the openings 13 is an opening 14, through which the waste water is drained to a small discharge-pipe 15, located in the front of the

member 6 of the cock-housing. 16 designates tubes inserted in the openings 2 and 4 in the side of the pipe 1 and extend into the ports 7 and 8 for the purpose of providing connection between the pipe and said ports.

17 designates a protuberance on the back of the member 6, and which is covered with a bushing 18, that fits the opening 3 in the pipe 1. This bushing 18 is designed to close the pipe at the point of its insertion, thus preventing the flow of water through the pipe and causing it to take the course through the ports 7 and 8 in its ascent and in the action of draining the water from above through the port 8 to discharge-pipe 15.

Interposed between the member 6 and the pipe 1 is a packing 19, which enables a tight joint to be formed between the members of the pipe and also around the tubes 16. The two members of the housing are connected together by means of screws 20 or other suitable fastenings.

In forming the openings in the sides of the pipe 1 it is important that they be spaced proper distances apart, and for this purpose I form on the interior of the surface of the pipe and member 5 of the housing three points 5^a, located at distances apart corresponding to the openings 2, 3, and 4 to be formed in the side of the pipe, and before making the openings 2, 3, and 4 I press the member 5 against the pipe, and the points 5^a mark the proper location at which the openings are to be made in the pipe.

I claim as my invention—

1. In a stop and waste cock, the combination of two housing members adapted for attachment to a pipe provided with openings in its side, one of said members being provided with ports communicating with the openings in said pipe and with a channel forming a communication between said ports, and a valve-plug located in said channel, substantially as described.

2. In a stop and waste cock, the combination of the two housing members adapted for attachment to a pipe provided with openings in its side, one of said members being provided with ports communicating with the openings in said pipe and with a channel forming a communication between said ports, a valve-

plug located in said channel, and a discharge-pipe leading from said channel, said plug provided with openings arranged to form communication between said ports or between
5 either of them and said discharge-pipe, substantially as described.

3. In a stop and waste cock, the combination of two housing members adapted for attachment to a pipe provided with openings in
10 its side, one of said members carrying an elastic bushing arranged to be inserted through the central one of said openings for the purpose of closing communication through the pipe, said member being provided with ports
15 communicating with the two other openings in said pipe, and with a channel forming communication between said ports, and a valve-plug located in said channel, substantially as described.

20 4. In a stop and waste cock, the combination of two housing members adapted for attachment to a pipe provided with openings in its side, one of said members being provided with ports communicating with the openings
25 in said pipe, and with a channel forming a

communication between said ports, a valve-plug located in said channel, and tubes
16 connecting the interior of said pipe with said ports, substantially as described.

5. In a stop and waste cock, the combination of two housing members adapted for attachment to a pipe provided with openings in its side, one of said members being provided with ports communicating with the openings in said pipe, and means carried by said member arranged to close the passage-way through
35 said pipe between said openings, said member being also provided with a channel forming a communication between said ports, a valve-plug located in said channel a discharge-pipe leading from said channel, said
40 valve-plug being provided with openings arranged to form communication between said ports or between either of them and said discharge-pipe, substantially as described.

SAMUEL M. FRIEDE.

In presence of—

JNO. C. MILLER,
E. F. PFEIFFER.