

(No Model.)

W. G. MILNER
VALVE.

No. 585,687.

Patented July 6, 1897.

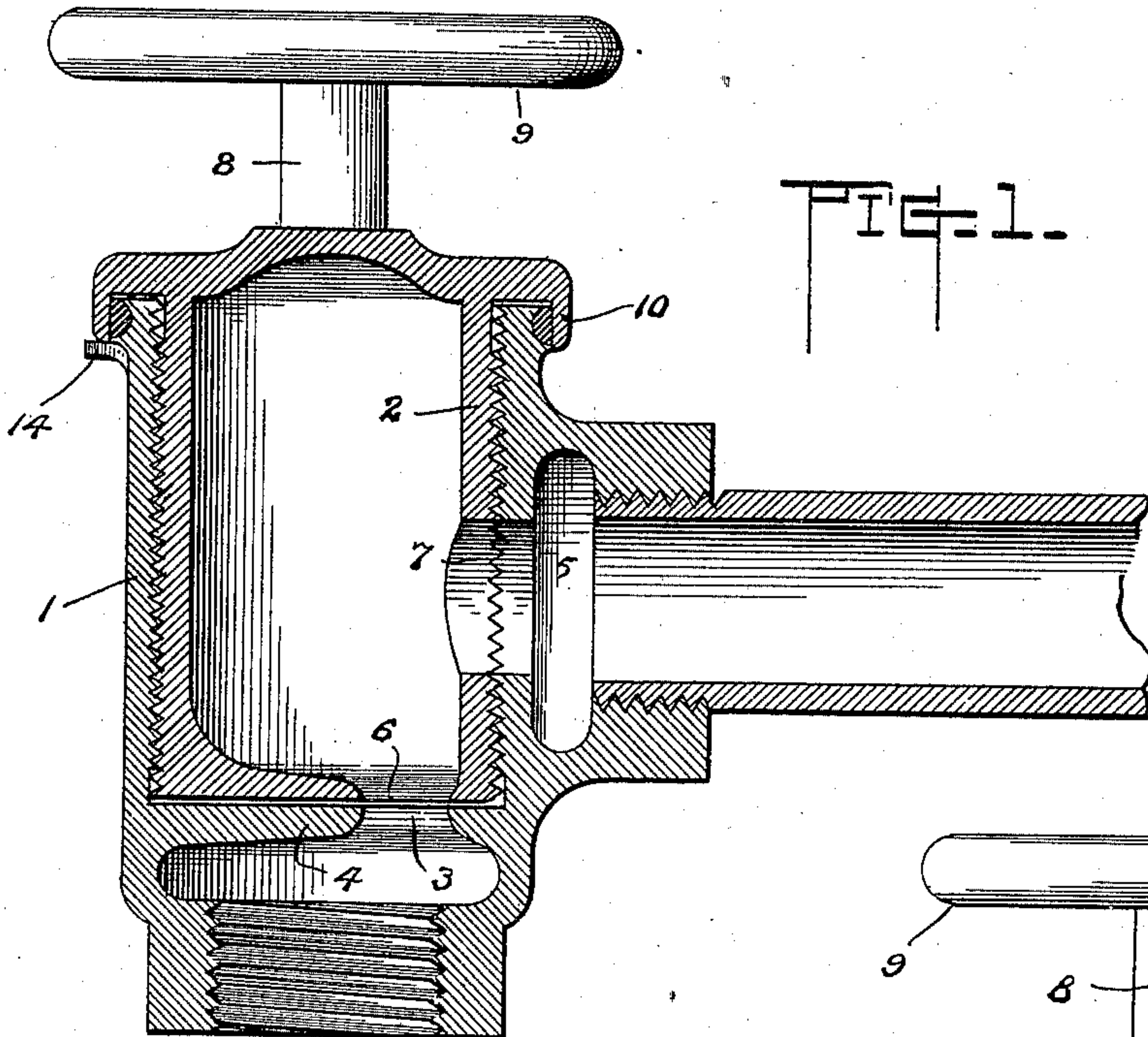


FIG. 1.

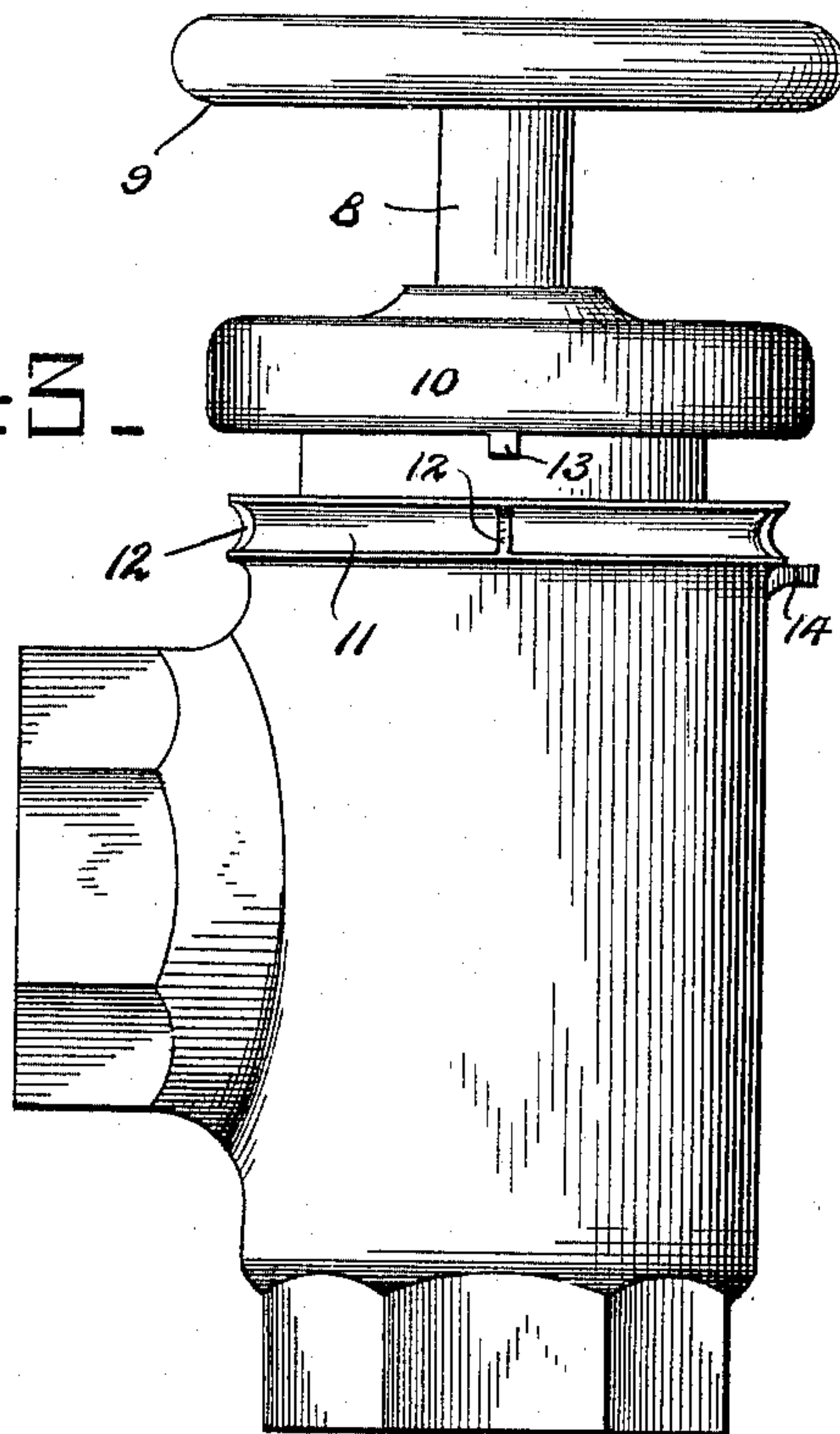
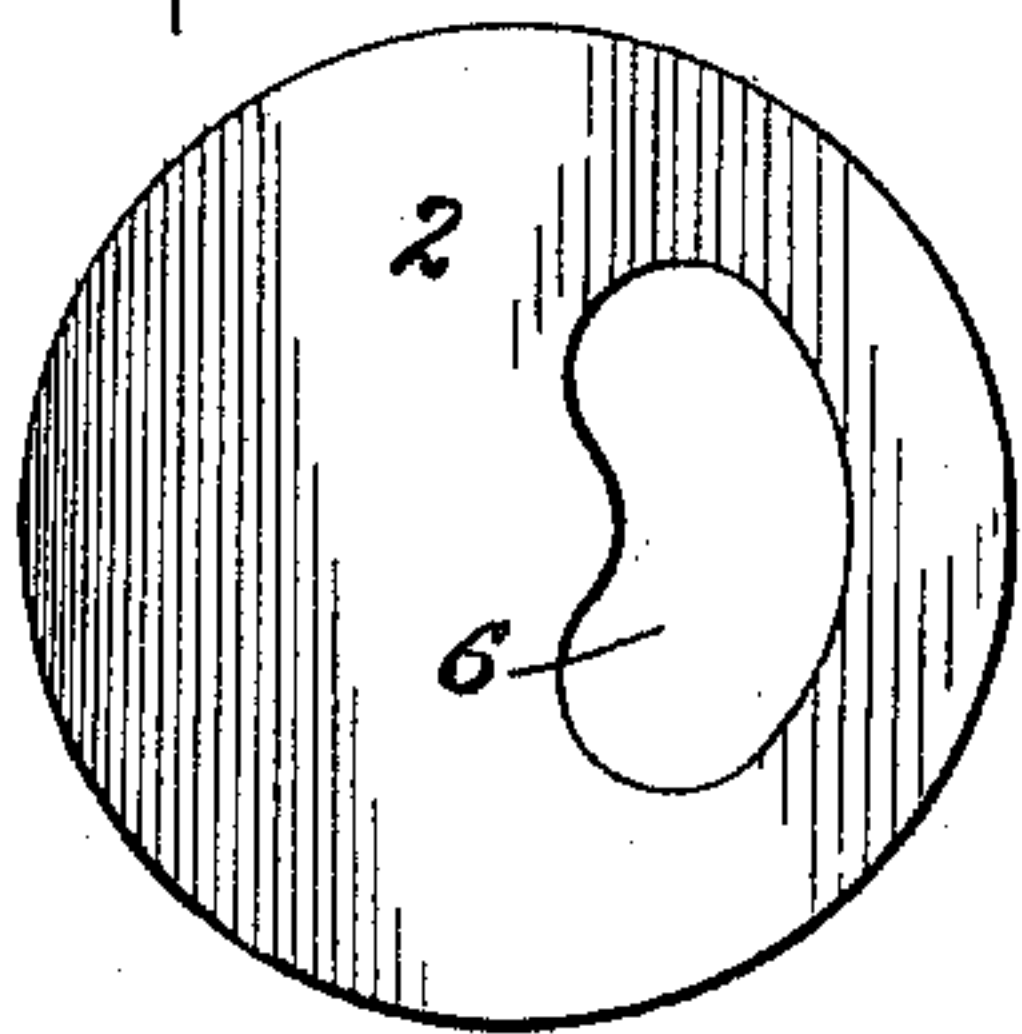


FIG. 3.

FIG. 2.



WITNESSES

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WILLIAM G. MILNER, OF BELLEVILLE, NEW JERSEY.

VALVE.

SPECIFICATION forming part of Letters Patent No. 585,687, dated July 6, 1897.

Application filed October 20, 1896. Serial No. 609,419. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. MILNER, a citizen of the United States, residing at Belleville, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Valves; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to a novel construction in a valve or cock; and it consists in the features of construction hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a central vertical section of a valve constructed in accordance with this invention and showing the parts of the valve in the position they assume when the valve is opened. Fig. 2 is an end elevation of the plunger. Fig. 3 is a side elevation of the casing.

Referring now to said drawings, 1 indicates the casing, and 2 the plunger. The said casing is provided at one end with an inlet 3, which is situated in the bottom plate 4 thereof and to one side of the center of the same. The said casing is provided with a lateral outlet 5, while the interior of the casing, which is cylindrical, is screw-threaded. The plunger 2 consists of a hollow cylindrical screw-threaded piece adapted to screw into the casing-tube and is provided at one end with an inlet-opening 6 to communicate with the inlet-opening 3 of the casing and with a lateral outlet-opening 7 to communicate with the outlet-opening 5 of the casing. The upper end of the plunger 2 is provided with a post 8 and hand-wheel 9. The upper end portion of the said plunger is also provided with an overhanging flange 10, between which and the body of the plunger the upper end of the casing is situated. The outer face of the upper end portion of the casing is provided with an annular groove 11, preferably provided with ridges 12, and a suitable packing is placed within this groove to form a tight joint between these parts, the said ridges 12 serving to prevent the packing from moving. To limit the movement of said plunger within the casing, these parts are provided with stops

conveniently situated, which in the instance illustrated consist of a lug 13 upon said flange 10 and a pin 14 upon the casing.

It will be seen from the above description that a valve or cock constructed in this manner will act effectually with both hot and cold water, and consists, practically, of two pieces, between which no packing is required except at the upper end thereof and which does not come in contact with the water or liquid passing through the valve. The valve is opened and closed by practically one-third of a turn of the plunger, while the screw-threaded connection between the plunger and casing provides effectual means for opening and closing the valves.

It is obvious that the bottom plate 4 of the casing as well as the lower end of the plunger are planed smooth, so that when they are brought together under the influence of the screw they form a water-tight joint. It is noted in Fig. 1 of the drawings that the bottom plates of the casing and plunger are slightly separated and that the openings 3 and 6 and 5 and 7 are opposite. This is the position of the parts when the valve is opened; but upon turning the plunger to screw it into the casing the said openings are moved out of alinement, while the bottom plates are brought forcibly together.

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

1. The combination with a casing having a bottom plate provided with an inlet, a lateral outlet, and a screw-threaded inner face, of a plunger consisting of a hollow, cylindrical piece exteriorly screw-threaded and provided at one end with an inlet-opening, and at one side with an outlet, substantially as described.

2. The combination with a casing having a bottom plate provided with an inlet, a lateral outlet, a screw-threaded inner face, and an open end opposite said inlet, of a hollow, cylindrical, exteriorly-screw-threaded plunger provided at one end with an inlet-opening, a lateral outlet, and an overhanging flange at the end of said casing opposite said inlet-port, an interposed packing between said flange and the adjacent end of the casing and a hand-wheel upon said plunger.

3. The combination with a casing having inlet and outlet ports and an open upper end, an exterior annular groove near said open end provided with ridges, of a rotatable plunger having inlet and outlet ports and provided with an overhanging flange, and a packing between said flange and groove.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM G. MILNER.

Witnesses:

JAMES SOUTHERN, Jr.,

JAMES BYRNES.