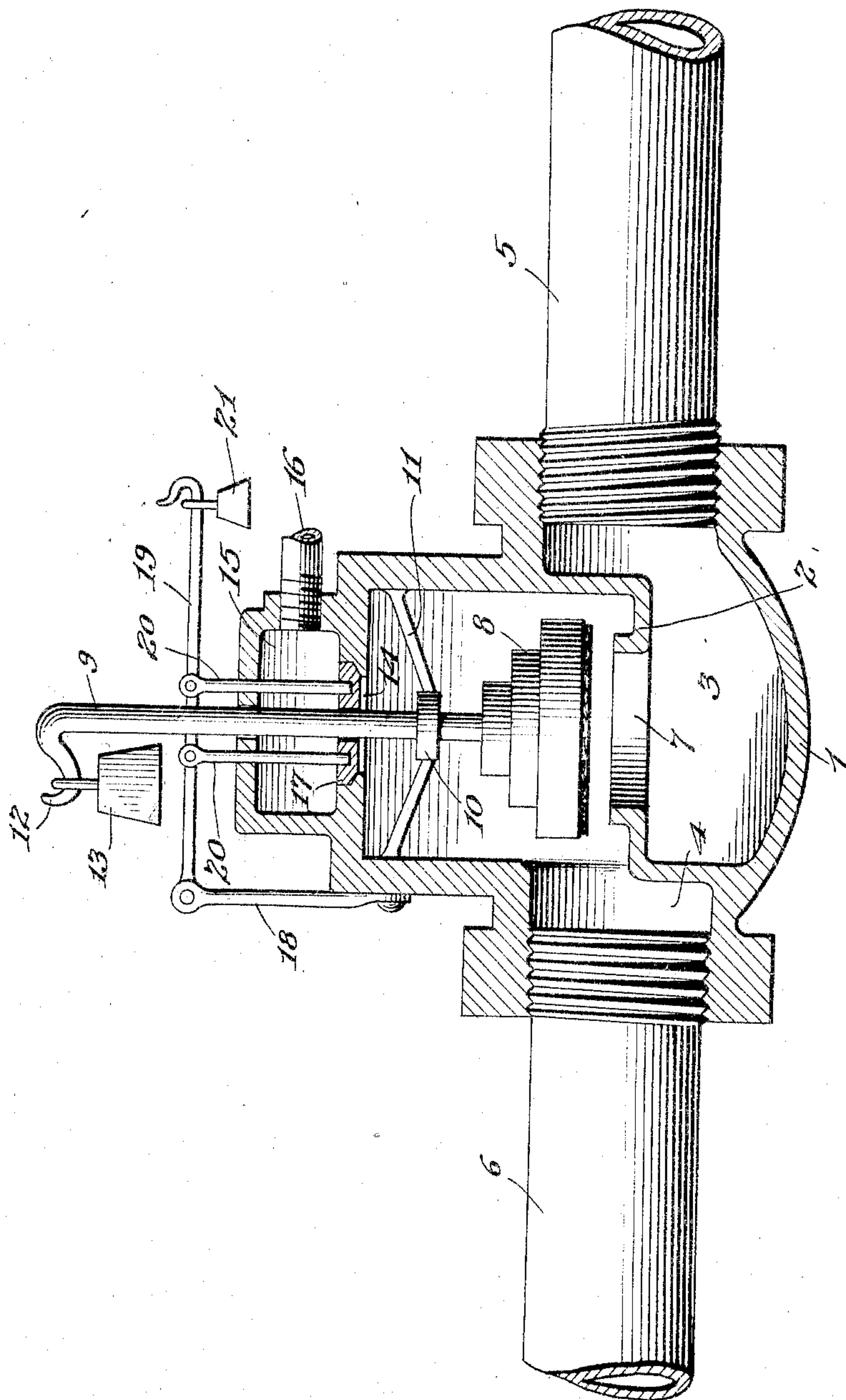


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 WATER PRESSURE REGULATING VALVE.  
 APPLICATION FILED DEC. 26, 1908.

927,492.

Patented July 13, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

EMANUEL CONLEY, OF NORRISTOWN, PENNSYLVANIA.

## WATER-PRESSURE-REGULATING VALVE.

No. 927,492.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed December 26, 1908. Serial No. 469,435.

*To all whom it may concern:*

Be it known that I, EMANUEL CONLEY, a citizen of the United States, residing at Norristown, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Water-Pressure-Regulating Valves, of which the following is a specification.

My invention relates to improvements in water pressure regulating valves, the object of the invention being to provide a simple inexpensive construction of valve which may be placed in private dwellings or public places, and which can by the employment of the proper weights secure just the water pressure desired.

A further object is to provide an improved construction and arrangement of valve which will act as a safety valve to insure the proper pressure and permit excessive pressure to open the valve and the water escape.

With these and other objects in view, the invention consists in certain novel features of construction, and combinations, and arrangements of parts as will be more fully hereinafter described and pointed out in the claims.

The accompanying drawing is a view in longitudinal section illustrating my improvements.

1 represents a valve casing divided by a partition 2, into two chambers 3 and 4 respectively, an inlet pipe 5 communicating with the former, and an outlet pipe 6 with the latter. The partition 2 is made with a port 7, connecting chambers 3 and 4, and a vertically movable valve 8 is adapted to open and close the said port 7. This valve 8 is provided with a vertical stem 9, supported in a bearing 10, at the center of a spider 11, in the valve casing, so as to prevent lateral movement of the valve, and the upper end of the stem is bent into a hook 12, to support a removable weight 13, for a purpose which will more fully hereinafter appear. The valve stem 9 also projects through a port 14 in the top of the valve casing, connecting the chamber 4 with an outlet chamber 15 on top of the casing, and a pipe 16 communicates with this chamber 15, and is adapted to convey water to any point of water discharge. A valve 17 is adapted to close the port 14, and is provided with a central opening to tightly fit around the valve stem 9, and while it permits vertical movement of the stem 9, the juncture between the valve 17

and the stem 9 is sufficiently tight to prevent any passage of water between them.

A standard 18 is secured to one side of the valve casing, and a lever 19 is fulcrumed at one end to said standard, and is connected by rods 20 with the valve 17, and a weight 21 is supported on the hooked free end of the lever 19.

The operation of my improvements is as follows: Assuming that the pipe 5 communicates with the water main or source of supply, and for the purpose of explanation, we will say the water in said pipe is under eighty pounds pressure, and it is desired to reduce the said pressure in the pipe 6 to twenty pounds pressure. To do this, the weight 13 should weigh sixty pounds. Hence, if the pressure in the pipe 5 were less than sixty pounds, the valve would remain closed, but as it is twenty pounds in excess, it will lift the valve and the pressure in pipe 6 will be but twenty pounds, as the sixty pounds pressure on the valve must be deducted from the water pressure in the pipe 5.

To insure the exact twenty pounds pressure in pipe 6 and in chamber 4, the weight 21 should weigh just twenty pounds, and this weight will of course hold the valve 17 on its seat against twenty pounds pressure in the chamber 4, but should the pressure in chamber 4 exceed twenty pounds, the valve 17 will be moved upward and the water will escape through the pipe 16 until the pressure is reduced to twenty pounds.

It is to be understood that by putting the proper weights on the valves 8 and 17, the pressure can be reduced as desired to exactly suit conditions. The device can be manufactured and sold at comparatively small cost, and can be placed in private dwellings, as well as public places, and leave to the individual the opportunity of regulating the water pressure in his house as he may see fit.

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

1. In combination with a valve casing, a partition having a port therein and dividing the valve casing into an inlet and an outlet chamber, a vertically movable valve adapted to close the port in said partition, a vertical stem on the valve projecting up through the valve casing, said stem adapted to receive a weight on its upper end, a valve around said stem and closing a port in the upper wall of the outlet chamber, a standard secured to the

valve casing, a lever fulcrumed at one end on the standard, rods connecting said lever with the last mentioned valve, and a weight on said lever.

- 5 2. In combination with a valve casing, a partition dividing said casing into inlet and outlet chambers and having a port therein, a vertically movable valve constructed to close said port, a weight on said valve, an outlet  
10 chamber on top of the valve casing, a valve around said stem closing a port between said outlet chambers, a standard on said valve

casing, a lever fulcrumed at one end on the standard, rods connecting said lever with the last mentioned valve, and a weight on said 15 lever.

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

EMANUEL CONLEY.

Witnesses:

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H. P. BEEM.