

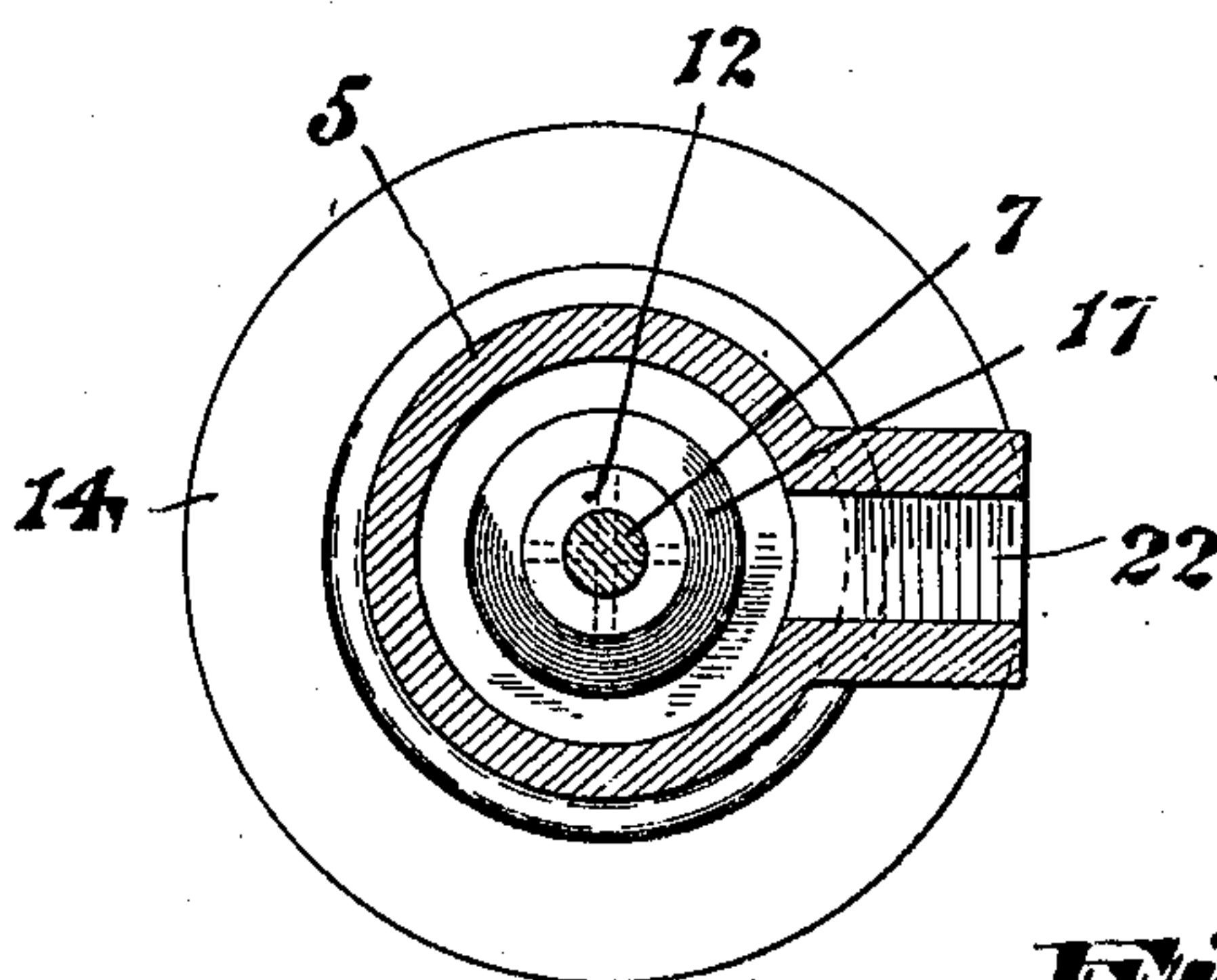
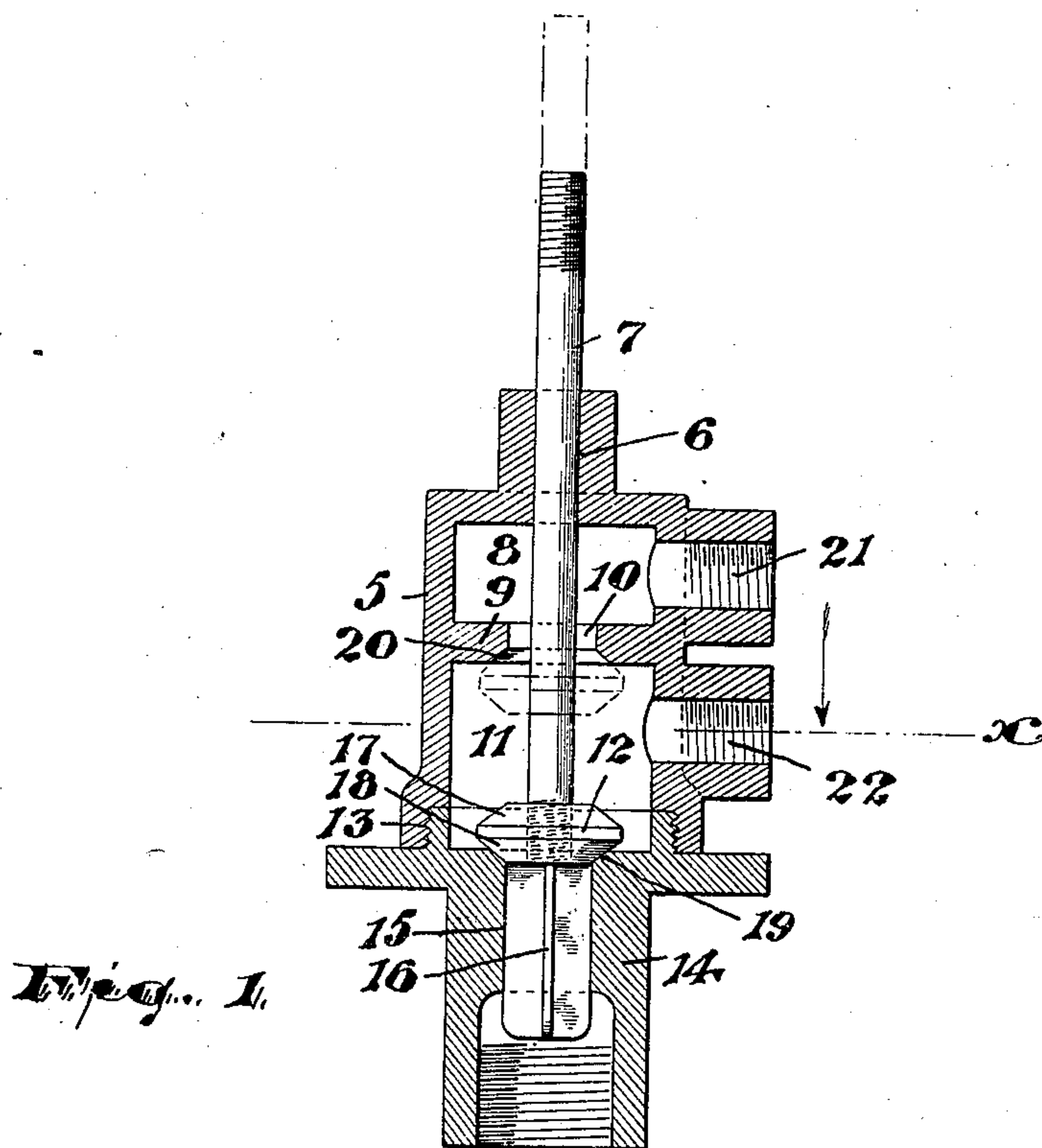
No. 828,086.

PATENTED AUG. 7, 1906.

J. BOWERS.

VALVE.

APPLICATION FILED JUNE 17, 1905.



WITNESSES

*Ralph Lancaster*

*Russell M. Everett*

INVENTOR

*James Bowers.*

BY

*Charles H. Bell,*

ATTORNEY.

# UNITED STATES PATENT OFFICE.

JAMES BOWERS, OF CALDWELL, NEW JERSEY.

## VALVE.

No. 828,086.

Specification of Letters Patent.

Patented Aug. 7, 1906.

Application filed June 17, 1905. Serial No. 265,755.

*To all whom it may concern:*

Be it known that I, JAMES BOWERS, a citizen of the United States, residing at Caldwell, 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 it appertains to make and use the same, reference being had to the accompanying drawings, and to numerals of reference marked thereon, which form a part of this specification.

This invention relates to an improved valve that is cheaply made, and is designed to furnish an outlet-pipe in the valve with alternate supplies from one and then another inlet on opposed sides of the outlet-pipe.

The invention is further designed to provide a valve of this kind that has a common valve-closure fitting two valve-seats and when seated on one or the other of the seats leaving a passage for fluid undisturbed, except for the valve-stem.

The invention consists in the improved valve and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth, and finally embraced in the claim.

Referring to the accompanying drawings, in which like numerals of reference indicate corresponding parts in each of the figures, Figure 1 is a vertical sectional view of my improved valve, showing the construction thereof more clearly. Fig. 2 is a horizontal sectional view taken at line *x*, Fig. 1.

In said drawings, 5 indicates the body of the valve, which embodies a guideway 6 for a valve-rod 7, and in axial alinement with said guideway and seat the said body is provided with chambers 8 and 11, partitioned from one another by an integral portion 9, containing a passage 10, adapted to receive the valve 12, connected to the valve-rod, and permit a reciprocal movement thereof. At the lower end of the valve-body the same is open and provided with female threads 13, adapted to receive an end connection 14, correspondingly threaded and preferably provided with male threads to engage the thread

of the body 5. Within said piece or connection 14 is a guideway 15 to provide bearings for the guide extension 16 of the valve-plunger, said guide extension consisting of cross plates or arms which do not close the passage-way through said piece 14, but cooperate with the valve-rod 7 to effect a positive movement of the valve-plunger toward and from the seats. The said valve-plunger is provided with finished opposite faces 17 and 18, and the piece 14 where it closes the chamber 11 is provided with a valve-seat 19 for the said plunger. At the opposite side of the said chamber 11, on the partition 9, is formed another valve-seat 20, adapted to engage the seat 17 of the valve, and thus in the reciprocal movements of the valve-rod and valve the said valve is brought alternately into impervious contact with the seat 19 in its downward movement and in impervious relation with the seat 20 in its upward movement.

From the valve-chambers 8 and 11 are respectively passages 21 and 22, which are threaded, and thus adapted to receive pipe connections, the upper passage 21 and the passage through 14 being inlets for fluid and the lower passage 22 permitting outflow from the chamber 11.

Thus in operating the device by drawing the valve-rod upward, by means of a cord or other means, against the pressure of the weight, (not shown,) which is sometimes employed to hold said valve in its lower position, the passage through the guideway 15 is open to permit the inflow or outflow of fluid, and said valve thus lifted will close immediately into engagement with the opposite seat 20, so that the said fluid is permitted to pass through the passage 22 only. By releasing the rod 7 or forcing it down against the seat 19, by weight or otherwise, the passage through the guideway 15 is closed and fluid is permitted to flow in from the passage 21 and out through the passage 22.

Having thus described the invention, what I claim as new is—

A valve of the kind described comprising a casing containing two valve-seats, a pipe extending from the casing between the valve-seats, a pipe above the upper valve-seat, a valve-stem reciprocating in the casing, the



casing having an inlet portion in line with the valve-stem, a guide on the bottom of the stem to guide the stem when the stem is raised, and a valve on the stem having a face  
5 both sides, and constructed to move out of the path of liquid when either of the valve-seats is closed.

In testimony that I claim the foregoing I have hereunto set my hand this 10th day of June, 1905.

JAMES BOWERS.

Witnesses:

CHARLES H. PELL,  
RUSSELL M. EVERETT.