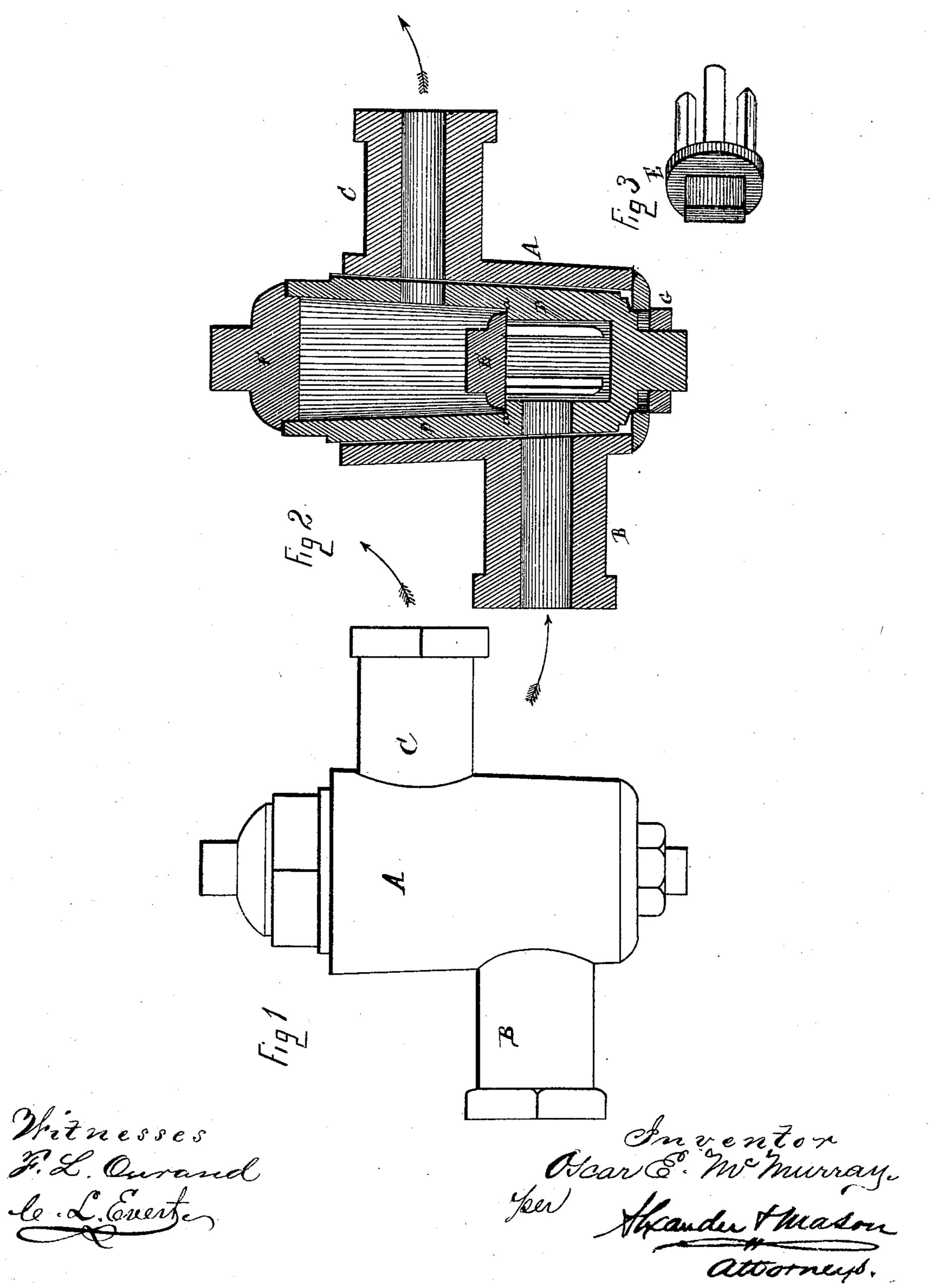
## O. E. McMURRAY. Combined Stop and Check-Valves.

No. 135,352.

Patented Jan. 28, 1873.



## UNITED STATES PATENT OFFICE.

OSCAR E. McMURRAY, OF LANSINGBURG, NEW YORK.

## IMPROVEMENT IN COMBINED STOP AND CHECK VALVES.

Specification forming part of Letters Patent No. 135,352, dated January 28, 1873.

To all whom it may concern:

Be it known that I, OSCAR E. McMurray, of Lansingburg, in the county of Rensselaer and in the State of New York, have invented certain new and useful Improvements in Check-Valve; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in combining a stop and check valve, substantially in the manner hereinafter described.

In the annexed drawing, A represents the case or shell of a stop-valve, which may be constructed in any of the known and usual ways. D represents the plug, which is fitted snugly in the shell and confined in position by means of a nut, G. This plug D is made hollow, and within it is formed a ledge or valve-seat, as seen at a a. E represents a check-valve, which may be made of any usual form, and which is placed within the plug D, resting on the ledge or seat at a a. F represents a cap, which closes the upper end of the plug D.

When this valve is in use the water passes directly through the shell A, as the valve E can offer no resistance to its passage to the

boiler. It acts, of course, as a check to prevent the return of water.

When the plug is turned so as to cut off the flow of water to the boiler, the cap F may be removed and the check-valve E very easily reached to repair it, or free it of any obstruction.

By this arrangement of two valves in one case—a check-valve within the plug of a stop-valve—I am enabled to put my valves in much smaller compass, where they will be less liable to damage or breakage, and where, at one operation, I can cut off the flow of water and repair them.

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

Letters Patent, is—

The combination, with the case A with inlet and outlet pipes BC, of the plug D with valve-seat a and the check-valve E, constructed and arranged to rest on said seat, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 26th day of December, 1872.

OSCAR E. McMURRAY.

Witnesses:

EDM. F. BROWN, J. M. MASON.