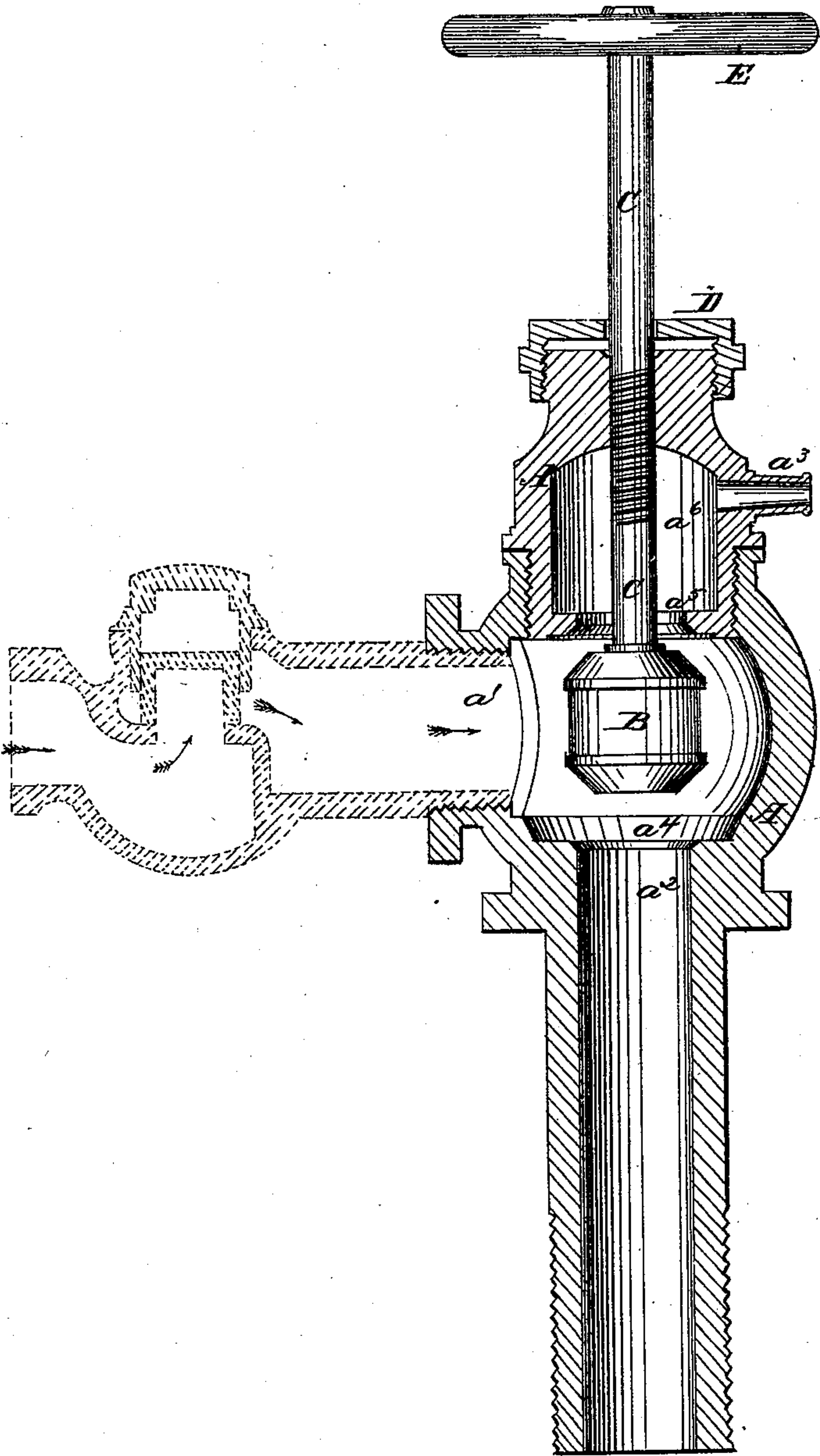


C. P. WIGGINS.

RELIEF AND SAFETY-STOP VALVE.

No. 188,556.

Patented March 20, 1877.



WITNESSES:

*Francis McArdle,*  
*Alex F. Roberts.*

INVENTOR:

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# UNITED STATES PATENT OFFICE

CHARLES P. WIGGINS, OF ST. LOUIS, MISSOURI.

## IMPROVEMENT IN RELIEF AND SAFETY STOP VALVES.

Specification forming part of Letters Patent No. **188,556**, dated March 20, 1877; application filed January 19, 1877.

*To all whom it may concern:*

Be it known that I, CHARLES PYLE WIGGINS, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and useful Improvement in Relief or Safety Stop Valve, of which the following is a specification:

The figure is a longitudinal section of my improved valve.

The object of this invention is to furnish an improved stop-valve, to prevent accidents from carelessly closing the feed-pipe while the pump is in motion, and which shall be so constructed as to always leave an open discharge.

The invention consists in a relief or safety stop valve, formed of the shell provided with an inlet, two outlets, and two valve-seats, and the double valve, so arranged that it can close only one outlet at a time, to adapt it to be interposed between the boiler and the check-valve of the pump discharge-pipe, as hereinafter fully described.

A represents the shell of my improved valve.  $a^1$  is the opening that leads to the check-valve, and thence to the pump.  $a^2$  is the opening that leads to the boiler, and  $a^3$  is an opening that leads to the open air, or to any convenient receiver. The shell A is provided with two valve-seats,  $a^4$   $a^5$ , one upon each side of the opening  $a^1$ . B is a double valve, which may be adjusted to rest upon the seat  $a^4$  and close the passage to the boiler, or may be adjusted to rest upon the seat  $a^5$  and close the

discharge  $a^3$ , but which can never close both openings at the same time, thus leaving a free discharge for the water at all times. In the shell A, above the seat  $a^5$ , is formed a chamber,  $a^6$ , through which the water passes to the discharge-opening  $a^3$ .

The valve B is attached to the end of a stem, C, which has a screw-thread cut upon it, and passes in through a screw-hole in the end of the shell A, and through a stuffing-box, D, attached to said end, so that the valve B may be adjusted into either seat by turning the stem C. To the outer end of the stem C is attached a hand-wheel, E, for convenience in turning it.

By this device, should the discharge of water into the boiler be stopped while the pump is at work, the water will be discharged through the passage  $a^3$ , and there will be no danger of bursting the pipes or breaking the pump.

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

The combination, with an adjustable double valve, B, of the shell A, provided with check-valve opening  $a^1$ , boiler-pipe opening  $a^2$ , discharge  $a^3$ , and valve-seats  $a^4$   $a^5$ , all constructed and arranged substantially as and for the purpose specified.

CHARLES PYLE WIGGINS.

Witnesses:

C. E. ROSENBAUM,  
JOS. F. WAngLER.