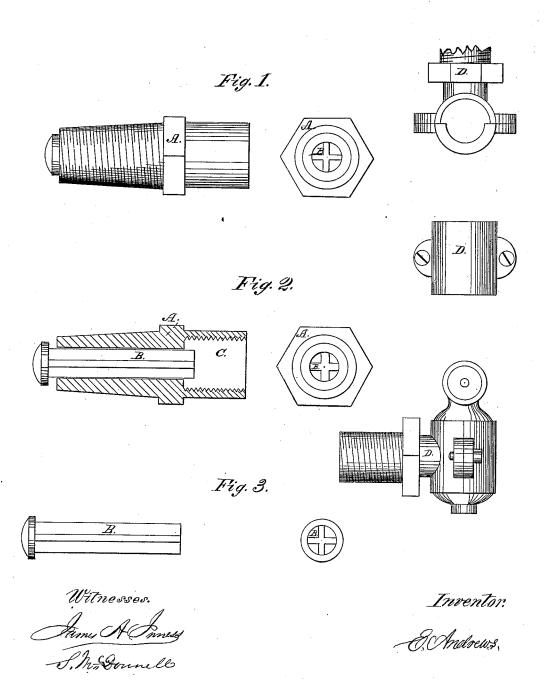
## E. Andrews, Gage Cock,

Nº251, 533,

Patented Dec.19, 1865.



## UNITED STATES PATENT OFFICE.

EDWARD ANDREWS, OF POTTSVILLE, PENNSYLVANIA.

## IMPROVEMENT IN STOP-VALVES.

Specification forming part of Letters Patent No. 51,533, dated December 19, 1865.

To all whom it may concern:

Be it known that I, EDWARD ANDREWS, of the borough of Pottsville, county of Schuylkill, in the State of Pennsylvania, have invented a Stop-Valve for Gage-Cocks and other Steam - Boiler Connections; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in providing a stop-valve to be used in boilers and other vessels having a pressure in them, between the gage-cocks, check-valves, feed-pipes, and other connections, to allow the gage cocks, feed and other pipes to be taken off the boilers for repairs without drawing the fires, blowing off the steam, or letting the water out, thereby preventing the stoppage of the machinery and expense attending the repairs of gage cocks and other boiler-connections.

Figure 1 is an exterior and end view, showing the valve shut. Fig. 2 is an interior and end view, showing the valve partly open, with the end of valve projecting in the chamber C. Fig. 3 is a side and end view of valve B.

Šimilar letters indicate corresponding parts

in the figures.

To enable others skilled in the art to make and use my invention, I will proceed to de-

scribe its construction and operation.

I construct the plug A, Figs. 1 and 2, with the chamber C, having the female thread in it, to allow the cock D to screw into it, also having a male thread on the taper end to screw into the boiler, and the six-sided flange for the wrench to fit on.

Through the center of the plug A is the hole for the valve B to slide in, as shown at Fig. 2, the valve B having its seat on the end of the plug A and its wings to extend into the chamber C as far as the valve B is required to open

when in operation.

The operation is as follows: The plug A being fastened to the boiler, the pressure acting on the valve shuts it, and its end projecting into the chamber Callows the gage cock D, on being screwed into the chamber, to strike the end of the valve and open it as far as is required; and if the cock D is to be taken out for repairs it releases the valve and allows it to shut, thereby allowing the pressure to remain in the boiler, giving the advantages before described.

I wish it distinctly understood that I do not confine myself to screwing the plug A into boilers. It may be made with a flange and bolted onto boilers, and it may also have a spring operating against the valve B to keep it shut when used in beer-barrels or other vessels containing pressure.

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

Letters Patent, is-

1. The combination of the plug A, chamber C, and valve B, for the purposes and in the manner set forth.

2. The combination of the plug A, chamber C, valve B, and gage-cock D, substantially as described.

EDWARD ANDREWS.

Witnesses:

JAMES A. INNESS, S. McDonnell.