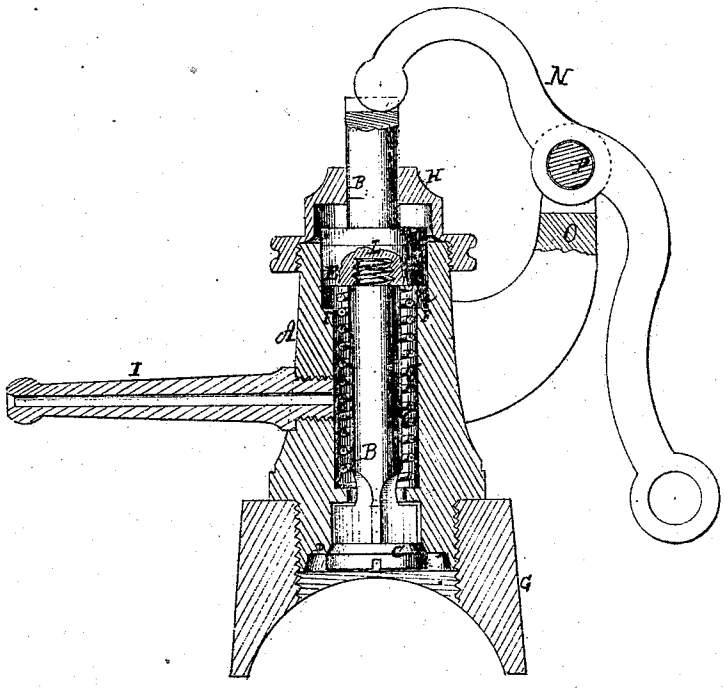
C. R. Vaillant,

Gage Cock.

No. 98,616. Patented Jan. 4. 1870.



Witnesses:

Wm. F. Clark.

Alex F. Roberts

Inventor:

C. R. Vaillant,

Per

Attorneys.

United States Patent Office.

C. R. VAILLANT, OF WHISTLER, ALABAMA.

Letters Patent No. 98,646, *dated January* 4, 1870.

IMPROVEMENT IN VALVE-COCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, C. R. VAILLANT, of Whistler, in the county of Mobile, and State of Alabama, have invented a new and useful Improvement in Valve-Cocks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to a new and useful improvement in cocks or faucets for discharging liquids or fluids, more especially designed for try-cocks or pet-cocks for steam-boilers, force-pumps, and similar purposes, and consists in arranging and operating, in a suitably-constructed shell, two valves, by means of a lever, as hereinafter more fully described.

The accompanying drawing represents a vertical section of a valve-cock, constructed according to my invention.

Similar letters of reference indicate corresponding parts.

A is the shell, with a base and cap.

B is the valve-stem, in two parts.

C is the lower or puppet-valve, which closes on to the seat D.

E is the upper and piston-valve, which is packed tightly in its chamber.

G is the base of the shell, which is connected, directly, with a force-pump or pipe.

H is the cap of the shell, through which the valve-rod B works.

I is the discharge-tube, which communicates with the main chamber J.

In this chamber J, there is a spiral spring, K, which bears upon the bottom of the chamber, at its lower end, and against the valve E at its upper end, with a constant pressure.

The lower valve is provided with wings, (three or more,) which guide it to its seat, and it forms a part of or is rigidly attached to the stem B.

The upper valve screws on to the lower portion of the stem-valve B, as seen at L, and is packed, so as to work water-tight in its chamber *m*.

This valve works like a piston, in a cylinder, the packing of which prevents the upward discharge of water, whether the valve closes down on to the seat F or not.

The upper portion of the valve E forms the upper portion of the stem B, to the top end of which the power is applied for actuating the cock.

N is the lever, which has its fulcrum on the arm O, at P.

The end of the lever simply bears upon the end of the valve-stem, as seen in the drawing, so that by raising the long end of the lever, the stem (with the valves) will be depressed. This action opens the valve C, and allows water or steam to be discharged.

When the action of the lever on the stem ceases, the pressure of the steam or water on the valve C will close the valve, the spring K being simply to hold the valve in place, when there is no pressure of steam or water on the valve.

Although this cock is designed to enable the engineer to ascertain whether his pumps are working properly, it may be used for all purposes, where a tightly-closing and durable "pet" or "try"-cock is desired.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

In combination with the shell A, the piston-valve E, the puppet-valve C, the stem B, and the lever N, constructed, arranged, and operating substantially as and for the purpose described.

C. R. VAILLANT.

Witnesses:

JOHN H. MCHUGH,

E. P. H. JUDD.