

No. 753,427.

PATENTED MAR. 1, 1904.

L. A. PARKER & H. D. CASTLEBERY.
COMBINED STEAM AND WATER VALVE.

APPLICATION FILED AUG. 26, 1902.

NO MODEL.

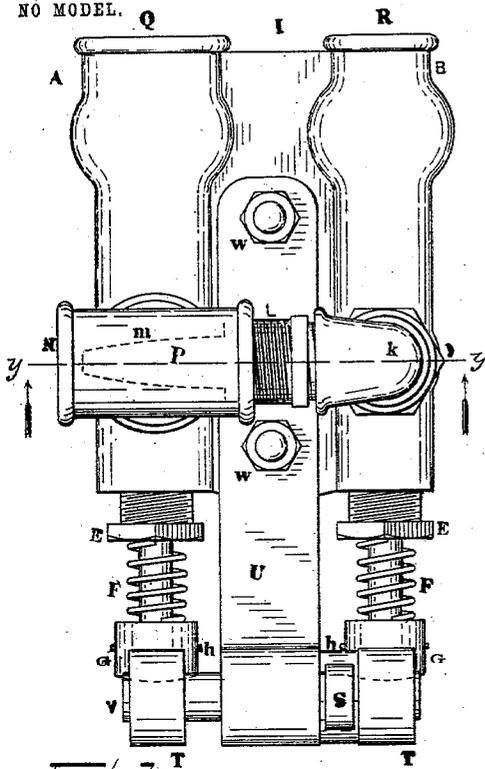


Fig. 1.

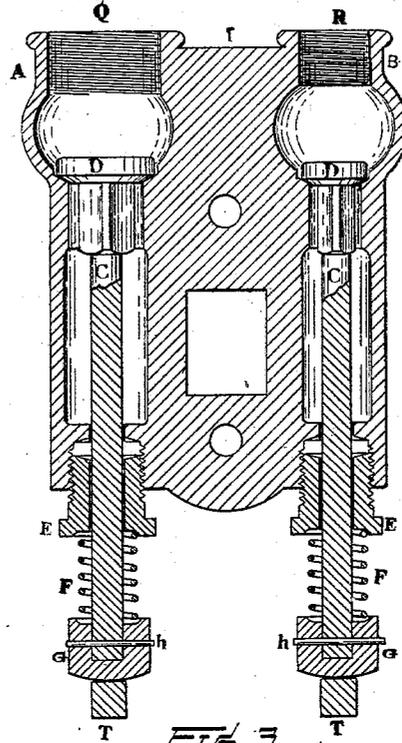


Fig. 3.

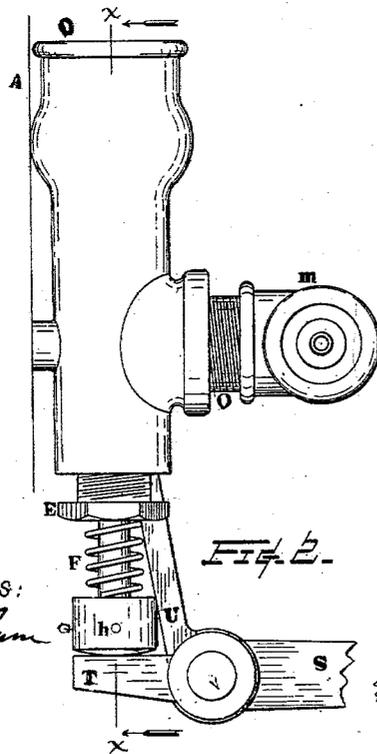


Fig. 2.

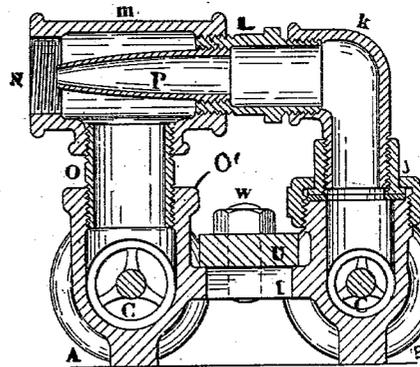


Fig. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

LEWIS A. PARKER AND HARRISON D. CASTLEBERRY, OF LEAVENWORTH,
WASHINGTON.

COMBINED STEAM AND WATER VALVE.

SPECIFICATION forming part of Letters Patent No. 753,427, dated March 1, 1904.

Application filed August 26, 1902. Serial No. 121,144. (No model.)

To all whom it may concern:

Be it known that we, LEWIS A. PARKER and HARRISON D. CASTLEBERRY, citizens of the United States, residing at Leavenworth, in the county of Chelan and State of Washington, have invented and produced a new and useful Combined Automatic Steam and Water Valve, of which the following is a specification.

Our invention relates to an improvement in quick-acting valves.

The object of the invention resides in providing means for simultaneously opening the water and steam valves and in means for automatically returning the valves to their seats.

Another object of the invention is to provide a device of the character described which will be strong, durable, and efficient and one in which the parts will not be liable to get out of working order.

With the above and other objects in view the invention consists in the novel details of construction and operation described in the specification and illustrated in the drawings, wherein—

Figure 1 is an elevation of the valves. Fig. 2 is an end elevation of the valves. Fig. 3 is a vertical section of the valves, and Fig. 4 is a transverse sectional view taken on the line *y y* of Fig. 1.

In the drawings, A designates the water-valve casing, and B the steam-valve casing, which are connected by an integral web I. The casings A and B are provided with screw-threaded openings to receive the supply-pipes and formed with valve-chambers A' and B', having valve-seats in their lower ends. Valves D, opening and closing against the said seats, are provided with stems C, which extend through the bottom of the casing, where packing-nuts E are located, and are provided on their ends with bosses G, which latter are held in place by pins *h*. Springs F encircle the valve-stems C and are confined between the packing-nuts E and the bosses for the purpose of holding the valves D upon their seats.

The water-valve casing A is formed with a screw-threaded neck O', into which is fitted a coupling O, having secured to its outer end a T_m. A nipple L, having one end internally

and externally threaded, is screwed into the T, carrying the jet-nozzle P, at one end and screwed into an elbow *k* at its other end. The elbow *k* is coupled to the steam-valve casing by a coupling J.

N designates the outlet through which the water and steam pass.

The hanger U, secured to the web I by bolts W, supports the shaft V, to which are fastened arms T, which bear against the bottoms of the bosses G. An operating-lever S is also supported upon the shaft and projects in an opposite direction to the arms T.

From the foregoing it will be readily seen that the ports Q and R being connected with sources of water and steam supply, respectively, the valve-chambers A' and B' are filled with fluid. A downward pressure being applied to the lever S, the shaft V is rocked, causing the arms T, bearing against the bosses G, to raise the valve-stems C against the tension of the spring F and lift the valves D, thus allowing the fluids to pass from the chambers A' and B' into the valve-casings. The steam passing through the coupling J and out of the nozzle P by way of the elbow *k* and the nipple L creates a vacuum, drawing the water from the valve-casing A through the coupling O into the T_m, where both the steam and water pass out through the outlet M. Pressure upon lever S being relieved, the valves are returned to their seats through the medium of the springs F, which, as before stated, were compressed upon the opening of the valve.

We do not wish to limit our invention to the exact details of construction and operation herein set forth, as we may make various changes in the same without departing from the spirit of our invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a device of the character described, the combination with a water-valve and a steam-valve, stems projecting from the valves, of means for simultaneously operating the valves comprising, a rock-shaft, projections from the shaft engaging the stems, a lever for rocking

the shaft to open the valves, and resilient means carried by the stems for closing the valves, substantially as described.

2. In a device of the character described, the
5 combination with a valve-casing, of a steam-valve and a water-valve operating therein, stems depending from the valves, springs confined on the lower end of the stems, arms supported from the casing and bearing against
10 the ends of the valve-stems, a pivoted lever connected to the arms, and a jet-nozzle connected to the valve-casing, substantially as described.

3. In a device of the character described, the
15 combination with a valve-casing, of a steam-valve and a water-valve operating therein, stems depending from the valves carrying

bosses on their lower ends, springs encircling the stems between the casing and the bosses, a shaft supported from the casing, arms secured to the shaft and bearing against the
20 bosses, a lever fixed on the shaft, a T secured to the casing and in communication with the water-valve, means connecting the T with the
25 steam-valve, and a nozzle-jet secured in the T, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

LEWIS A. PARKER.

HARRISON D. CASTLEBERY.

Witnesses:

R. T. KING,

J. E. SHORE.