

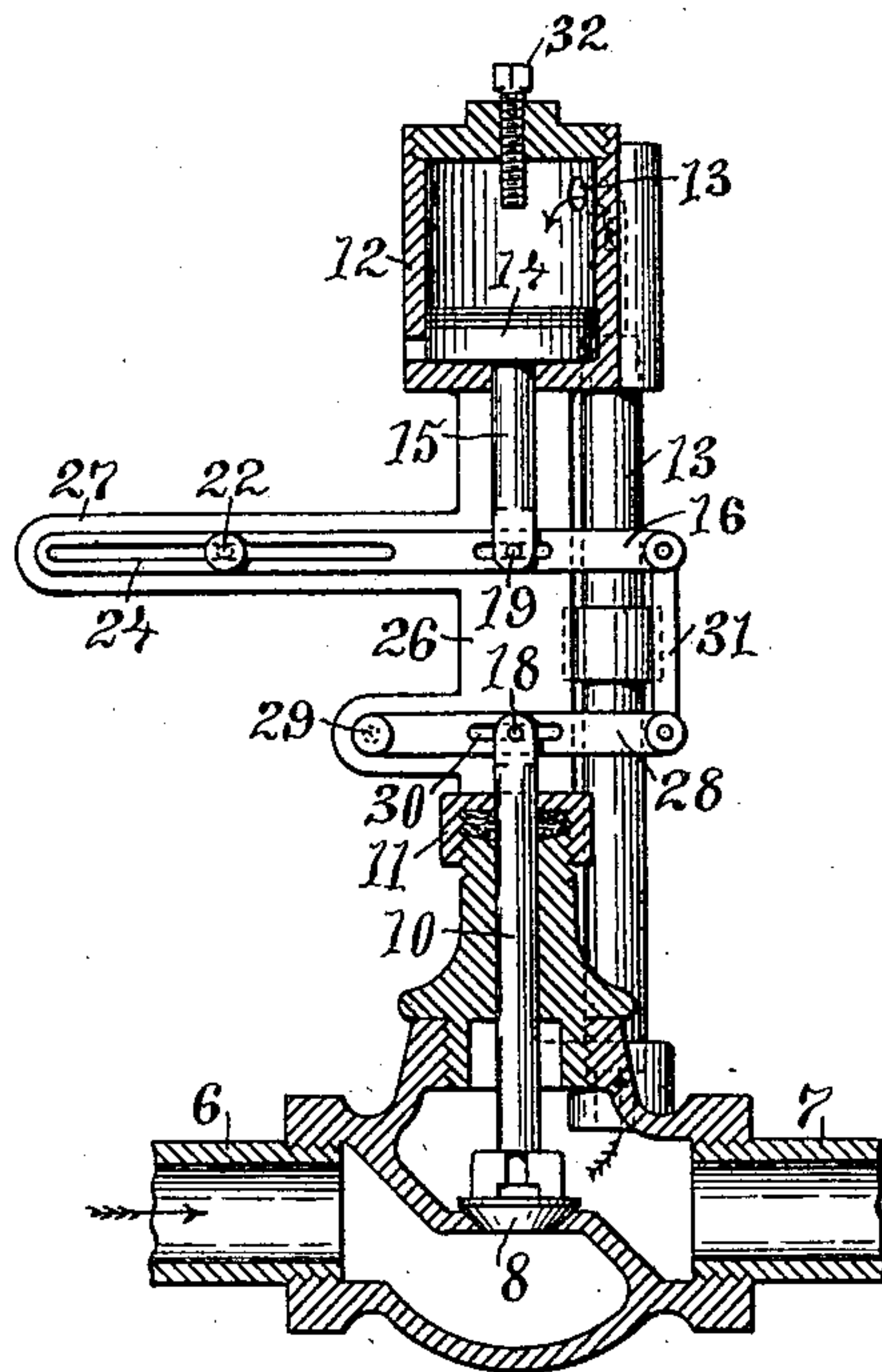
(No Model.)

W. D. SHELDON.

AUTOMATIC FLUID PRESSURE REGULATOR.

No. 379,824.

Patented Mar. 20, 1888.



WITNESSES:

Chas. H. Luther Jr.
W. F. Bligh

INVENTOR:

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UNITED STATES PATENT OFFICE.

WILLIAM D. SHELDON, OF PROVIDENCE, RHODE ISLAND.

AUTOMATIC FLUID-PRESSURE REGULATOR.

SPECIFICATION forming part of Letters Patent No. 379,824, dated March 20, 1888.

Application filed June 8, 1887. Serial No. 240,588. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. SHELDON, of the city and county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Automatic Fluid-Pressure Regulators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to mechanism for automatically regulating the pressure in any kind of a fluid system—such, for instance, as gas, water, or steam pipe systems—in order to maintain a uniform pressure therein.

15 The objects of my invention are to provide a positive-acting and adjustable pressure-regulating mechanism which may be automatic in its operations and which is simple and efficient and requires little or no care.

20 To the above purposes my invention consists in the certain novel and peculiar construction and arrangement of the parts of the device.

In the accompanying drawing, the figure is 25 a longitudinal central sectional view of my improved pressure-regulating mechanism.

Referring to the drawing, the numbers 6 and 7 designate the high and low pressure pipes, respectively, and these pipes are in communication through the valve 8, which is 30 mounted in the casing 9 and is provided with a stem, 10, which works through the stuffing-box 11.

The cylinder 12 is placed in communication 35 with the interior of the low-pressure pipe 7 by means of the passage 13. In the cylinder works a piston, 14, which is provided with a piston-rod, 15, which is connected with the valve-stem 10, as will now be described.

40 The cylinder 12 is supported above the valve-casing upon an upright, 26, and the passage

13 runs from the valve-casing 9 to the cylinder. From the upright 26 extends a lateral arm, 27, which is provided with a horizontal slot in which may be adjusted the fulcrum pin or 45 post 22, which takes through the slot 24, formed in the rock-lever 16, which is pivoted to the piston-rod 15, as before described. The arm 28 is pivoted upon the upright at 29, and is formed with a slot, 30, through 50 which takes the fixed pin 18 of the valve-stem 10. The link 31 is pivoted by its respective ends to corresponding ends of the rock-lever 16 and the pivoted arm 28. In order to vary the leverage of the rock-lever 16, the fulcrum- 55 post is moved either to the right or left, and its adjustment will serve to change the leverage in a manifest way.

In the different conditions under which the regulator may be used the parts of the mech- 60 anism are to be adjusted to meet the requirements.

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

The combination, as hereinbefore set forth, 65 with the communicating high and low pressure pipes 6 and 7, respectively, and the valve 8, controlling the communication therebetween and provided with the stem 10, of the cylinder 12, provided with the piston 14, having 70 the stem 15, the passage 13, connecting the said cylinder and low-pressure pipe, the lever-arm 16, hinged to the stem 15 and provided with the adjustable fulcrum, the pivoted arm 28, hinged to the valve-stem 10, and the pivoted 75 link 31 intermediate the said arms 27 and 28, substantially as and for the purpose herein described.

WILLIAM D. SHELDON.

Witnesses:

J. A. MILLER, Jr.,
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