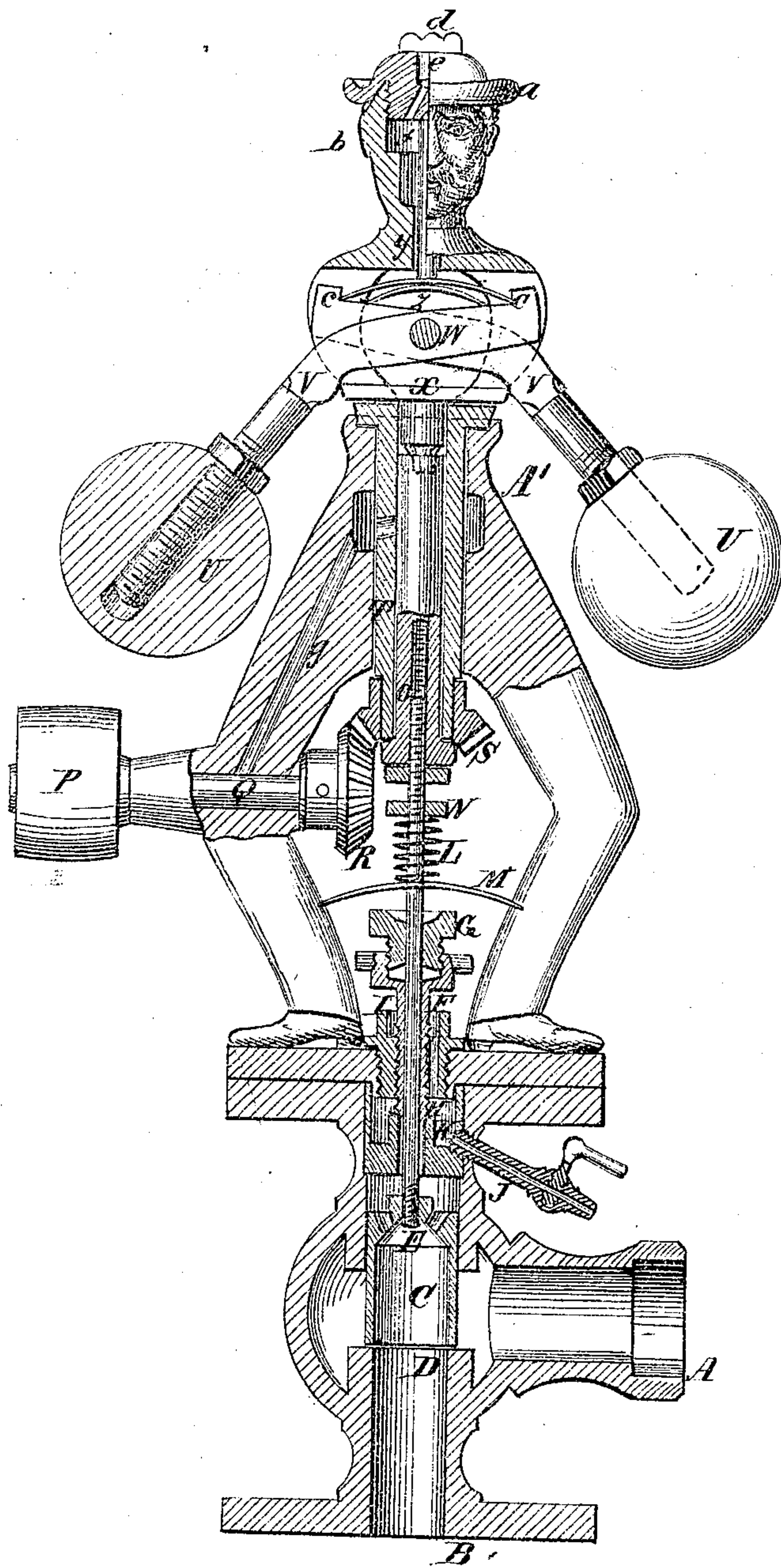


A. MATSON.

Improvement in Steam-Governors.

No. 129,287.

Patented July 16, 1872.



Witnesses:

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UNITED STATES PATENT OFFICE.

ANDERS MATSON, OF QUINCY, ILLINOIS.

IMPROVEMENT IN STEAM-GOVERNORS.

Specification forming part of Letters Patent No. 129,287, dated July 16, 1872.

Specification describing a new and useful Improvement in Steam-Governors, invented by ANDERS MATSON, of Quincy, in the county of Adams, and State of Illinois.

This invention relates to a new and useful improvement in governors for steam-engines; and consists in the construction and arrangement of parts hereinafter described.

The accompanying drawing represents a vertical section of the governors connected with the steam-shell, showing the general construction and arrangement of parts.

Similar letters of reference indicate corresponding parts.

A is the steam-pipe from the boiler connecting with the shell B, which conducts the steam to the engine. C is the valve and D is the valve-seat. E is the valve-rod. F is a tubular screw around the valve-rod, with stuffing-box G at its top end. The lower end of the tubular screw F is a conical valve, and fits into a seat, H. To lubricate the steam-valve C and admit oil into the steam-chest and cylinder, oil is poured into the cup I, the valve-screw F is raised from its seat, and the oil finds its way to the steam-valve and steam-chest through the opening around the valve-rod. The screw is then turned down to its seat, which confines the oil and excludes the steam and water. J is a try-cock by which to ascertain whether oil remains in the chamber K. L is a spiral spring around the valve-rod, bearing upon the cross-bar M, and increased or diminished in tension by the screw-nut N. The upper end of the valve-rod screws into the bar O, and the two are thus connected together. P is the driving-pulley. Q is the shaft. R is a gear-wheel on the end of this shaft which meshes into the gear-wheel S on the lower end of the sleeve T, through which the bar O passes. U U are the balls, and V V are the ball-levers of the governor. These levers are connected with the sleeve T by the pin W. X is a plate with a socket-end, which enters a recess in the top of the bar O. When

the steam is shut off (as seen in the drawing) the levers V V rest upon the ends of this plate. When the balls rise, the plate as well as the valve is thrown up by the recoil of the spiral spring L until the ends of the levers V V rest upon the top of the plate X and control the valve. Y represents a vertical rod, the lower end of which bears upon the springs Z, which rest upon the upper sides of the ball-levers V V. *a* is the cap of the governor which screws on to the head *b*, so as to bear upon the end of the rod Y and compress the springs Z. The longer of these two springs bears against the shoulders *c c* of the levers, and receives the concussion when the balls drop suddenly. *d* is a plug in the center of the cap *a* which gives access to the oil-holes *e*. Oil poured through the cap *a* finds its way into the chamber *f*, from whence it passes down the bar O and sleeve T. It also passes down through the passage-way *g* and lubricates the driving-shaft Q. The shell of the governor is made to resemble the figure of a man, and is made in two sections, the legs and lower part of the body being stationary while the chest and head revolve with the balls, the joint being at the waist of the figure. I do not confine myself to the precise form or arrangement of any of the parts described, as they may be varied in many ways without departing from my invention.

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

1. The tubular screw F and valve-seat H, in combination with the valve-rod, as and for the purposes described.
2. The rod Y and springs Z, arranged as described, for the purposes set forth.
3. The oil-aperture *e*, chamber *f*, and passage *g*, arranged as described.

ANDERS MATSON.

Witnesses:

TALLAG TANNESSEN,
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