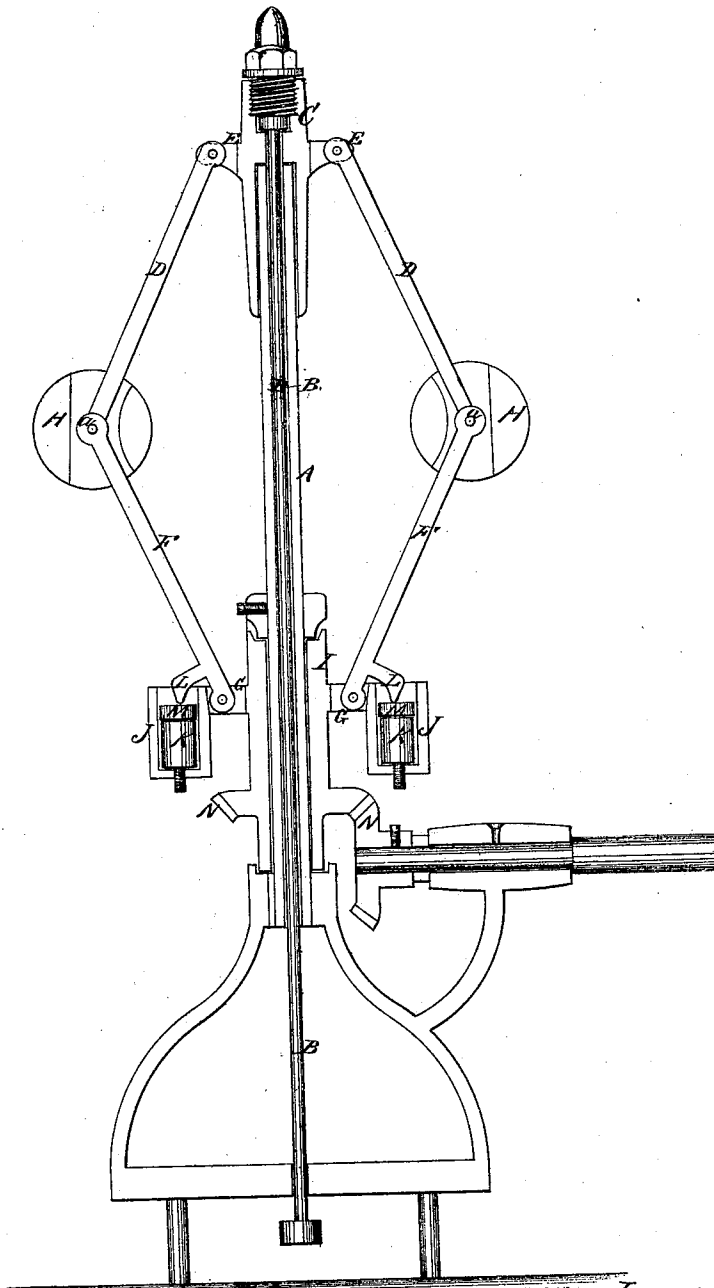


G. T. Pracy,

Governor.

No. 85763.

Patented Jan. 12, 1869.



Witnesses.
Geo. H. Strong,
J. L. Boone

Inventor.
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United States Patent Office.

GEORGE T. PRACY, OF SAN FRANCISCO, CALIFORNIA.

Letters Patent No. 85,763, dated January 12, 1869.

IMPROVEMENT IN GOVERNORS FOR STEAM-ENGINES.

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, GEORGE T. PRACY, of the city and county of San Francisco, State of California, have invented an Improved Governor for Steam Engines; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains, to make and use my said invention or improvements without further invention or experiment.

The object of my invention is to provide an improved governor for steam-engines, which is so constructed that it will act instantaneously on the governor-valves whenever the speed of the engine is checked or increased, and by means of a device which is very simple and cheap compared with other governors.

To effect this, I construct the governor with two arms, each composed of two rods, which are attached to the valve-spindle at the top, and forming a knuckle-joint at the centre, at which point the weights are placed.

At the bottom, the two lower rods have each a curved projecting lug, the end of which rests on a rubber or other spring, so that as the weights separate by centrifugal motion, the springs are compressed; but if the engine runs slow, and this motion is decreased, the springs, by their elasticity, instantly force the weights to the centre, and open the valve.

To more fully explain my invention, reference is had to the accompanying drawings, forming part of this specification, which represent a side sectional elevation.

Similar letters of reference in each of the figures indicate like parts.

A is a standard, having the valve-spindle B passing down through it, and operating on the valve.

The upper end of the spindle is so connected with the sleeve C, that any motion that it makes up or down carries the spindle with it.

The two arms D D are hinged to the lugs E, and are hinged to the two arms F, so as to form a knuckle-joint at a.

The two arms F are hinged at the bottom to the short lugs or arms G, on the revolving sleeve I; and

the weights H H are attached at the junction a of the arms D and F.

The lugs or arms G project far enough to support the pots J J, within which are placed the springs K, which may be of rubber, wire, or other suitable form and material.

From the outside of the arms F, near their point of attachment at the bottom, two curved arms, L, project, so that their ends rest on the plungers M.

These plungers are fitted into the pots J, so as to rest on and move with the springs, and at the same time protect them from all dirt.

The sleeve I is revolved by the bevelled gear N, and carries with it the pots J and the arms F and D, with the weights H H.

As the speed increases, the weights separate by centrifugal force, and operate on the valve by the spindle B, so as to close it more or less, according to the speed. As the weights separate, the curved lugs or arms L press on the plungers M, and compress the springs K, the resistance increasing with the amount of compression; and whenever the speed is abated, the springs, by their elasticity, act instantaneously on the lugs, and through them on the arms F and the weights H, thus forcing them back to the centre, and opening the valve.

I do not confine myself to any particular position of the springs, as they might be attached to the upper part, and be operated by lugs on the arms D, but it is not as convenient.

By this construction I form a very simple and extremely delicate governor, without expensive springs, as they may be made of a short length of rubber pipe, which can be removed at any time in a few moments.

Having thus described my invention,

What I claim, and desire to secure by Letters Patent, is—

The cups J, springs K, arms F, and lugs L, combined and arranged substantially as described, for the purpose specified.

In witness whereof, I have hereunto set my hand and seal.

Witnesses: GEORGE T. PRACY. [L. s.]

J. L. BOONE,

GEO. H. STRONG.