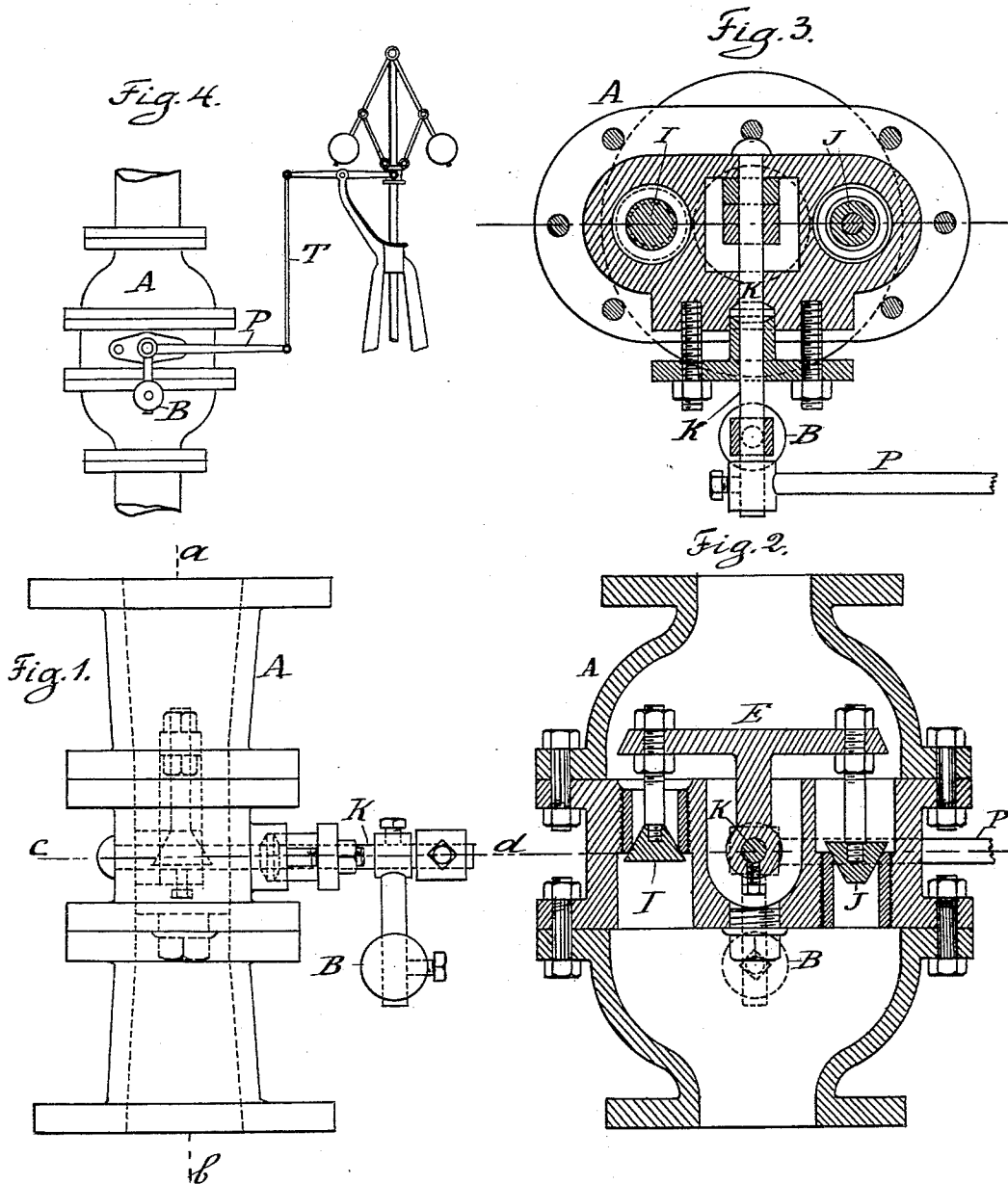


(No Model.)

J. PILET.
GOVERNOR EQUILIBRIUM VALVE.

No. 476,550.

Patented June 7, 1892.



Witnesses:
1. H. Dean.
2. F. Dittmar

Inventor: Joseph Pilet
per J. Dittmar.
attorney.

UNITED STATES PATENT OFFICE.

JOSEPH PILET, OF LIEGE, BELGIUM.

GOVERNOR EQUILIBRIUM-VALVE.

SPECIFICATION forming part of Letters Patent No. 476,550, dated June 7, 1892.

Application filed January 9, 1892. Serial No. 417,542. (No model.) Patented in Belgium December 24, 1890, No. 93,225, and March 12, 1891, No. 94,106.

To all whom it may concern:

Be it known that I, JOSEPH PILET, a subject of the King of Belgium, residing at Liege, in the Kingdom of Belgium, have invented certain new and useful Improvements in Governors or Regulators with Equilibrium-Valves for Steam-Engines, (for which I have obtained patents in Belgium December 24, 1890, No. 93,225, and March 12, 1891, No. 94,106;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to an improved governor or regulator for steam-engines, being provided with equilibrated valves.

In the accompanying sheet of drawings, Figure 1 is a side view of my improved governor. Fig. 2 is a vertical section on line *a b*, Fig. 1. Fig. 3 is a horizontal section on line *c d*, Fig. 1. Fig. 4 shows the combination of the regulator with valves with an ordinary ball-governor.

The valve-case A of the regulator is placed directly upon the slide-valve box and communicates on one part with this box and on the other part—that is to say, by the top—with the steam-pipe from the boiler. In this case A are fitted two equilibrium-valves I and J, the first of which may open downward and the other upward. The rods of these valves are connected by a T-shaped beam or balance E, Fig. 2, fixed upon the rock-shaft K, which extends through a stuffing-box outside the case, Figs. 1 and 3.

Upon the rock-shaft K, outside of the case A, is fixed a lever P, connected to a ball or other governor of the engine by hinging its free end to a rod T of the same. A weight B, Figs. 1 and 4, (shown in dotted lines Fig. 2,) fixed on the shaft K, serves as counter-weight to the lever P. When the engine is not working, the rod T, Fig. 4, of the ball-governor occupies its highest position. The lever P has oscillated the rock-shaft K, which in its move-

ment has carried the beam E with it. This beam has moved the valves I and J, which then are open. If now steam is admitted by opening the steam-cock, it is free to pass through the valves I and J in the valve-case A into the slide-valve box and into the engine-cylinder, so that the engine is started. When the speed of the engine is too great, the rod T of the ball-governor lowers, as is easily understood from the drawings. The lever P pivots downward and carries with it the rock-shaft K and the beam E, so that the valves I and J will partially or entirely close, and thereby shut off the steam more or less. When, on the contrary, the speed of the engine slackens too much, the rod of the governor is raised and the valves I and J open farther and admit a larger quantity of steam into the slide-valve box. This regulator may be applied to any kind of steam-engine and be combined with any ball or other governor.

Having described my invention, what I desire to secure by Letters Patent is—

The herein-described device for regulating the passage of steam, comprising a valve-case having two valve-openings, two valves oppositely arranged to each other for opening and closing said openings, a rock-shaft between said openings having its outer end projecting through the casing, a T-shaped beam having an end of its vertical portion fixed to said rock-shaft and the ends of its horizontal portion connected to said valves, a lever fixed to the outer end of said rock-shaft, a weight in said rock-shaft serving as a counter-weight to said levers, and a pivoted rod for connecting said levers with a governor, all arranged, combined, and operating substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

JOSEPH PILET.

Witnesses:

JULES HAMAL,
J. GROSS.