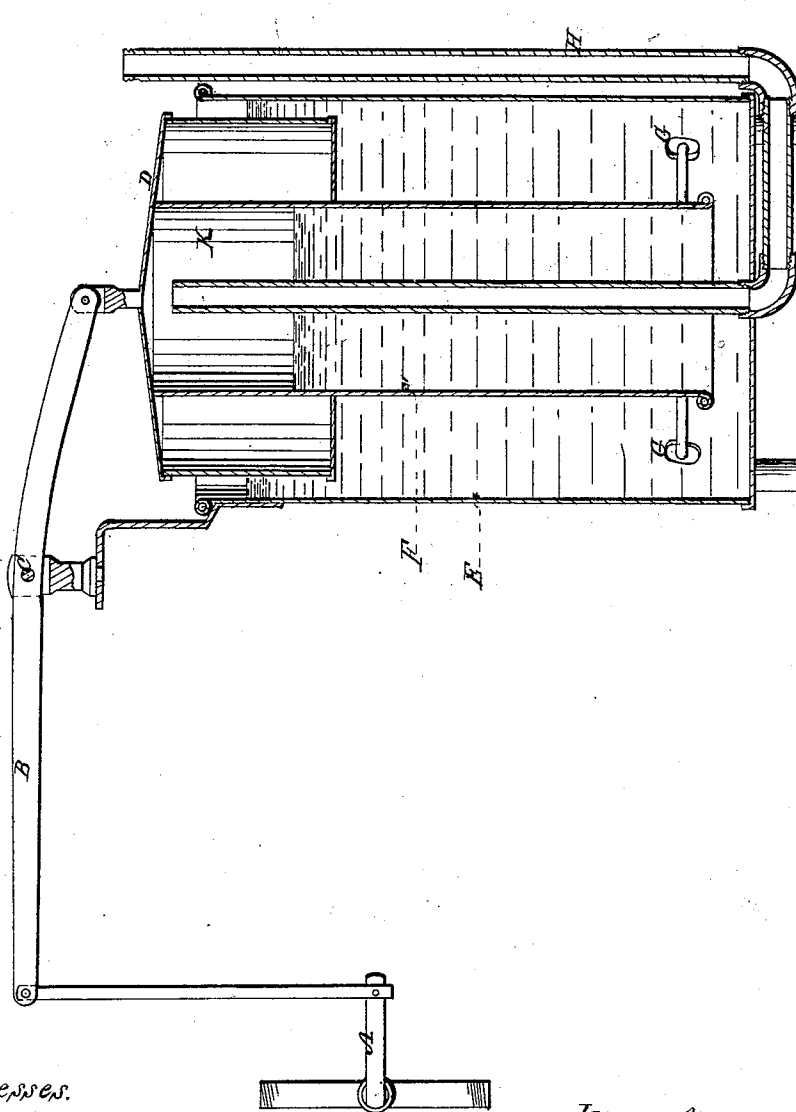


S. Trumbore,
Governor.

N^o 84,396.

Patented Nov. 24, 1868.



Witnesses.

E. Wolff
Wm. A. Morgan.

Inventor.
Saml^r Trumbore.
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Attorneys.



SAMUEL TRUMBORE, OF EASTON, PENNSYLVANIA.

Letters Patent No. 84,396, dated November 24, 1868.

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, SAMUEL TRUMBORE, of Easton, in the county of Northampton, and State of Pennsylvania, have invented a new and improved Exhaust-Governor; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to improvements in governors for regulating the speed of engines used for exhausting gas from hydraulic mains in gas-works, whereby it is designed to provide a quicker and more reliably-acting governor, such as are actuated by the pressure of the gas in the said mains for regulating the speed of the engines used for exhausting the same.

The drawing represents a sectional elevation of my improved apparatus.

A represents, in red, the throttle-valve stem of the actuating-engine, which withdraws, by a pump or other suitable means, the gas from the retorts, and forces it into the gasometer, which stem is connected, by a rod, to the lever B, supported on a fulcrum at C, and connected by its other end, by any suitable joint, to the float D, resting on the water in a vessel, E, of suitable form, and having a tubular extension, F, reaching nearly to the bottom of the vessel, where it is provided with guide-rollers G, acting against the interior walls of the vessel E, to steady the said float.

H represents a tube, communicating with the hydraulic main, through which the gas is received by the pump, and leading into the chamber K, in the upper portion of the tubular extension of the float, above the water therein, whereby the gas will be admitted to the said chamber, the pressure of which will vary simultaneously with that in the said mains, or in the retorts. Consequently, when the pressure in the retort rises, the float will be moved in the direction to increase the speed of the engine, and *vice versa* when the pressure falls.

By this arrangement, I am enabled to provide a much more sensitive governor than those where the walls of the gas-chamber are fixed, and the water is forced from the said chamber under a float, as by my plan the upper wall of the chamber is the shell of the float, which is more instantly affected by any change in the pressure, as will be readily understood.

I claim as new, and desire to secure by Letters Patent—

The float D, provided with the tubular extension F and guide-rollers G, and arranged, with reference to the vessel E and the tube H, substantially as described.

The above specification of my invention signed by me, this 5th day of October, 1868.

SAMUEL TRUMBORE.

Witnesses:

FRANK BLOCKLEY,
ALEX. F. ROBERTS.