A. TALBOTT.

Combined Governors and Throttle-Valves.

No. 154,726. Patented Sept. 1, 1874.

Fig. 1.

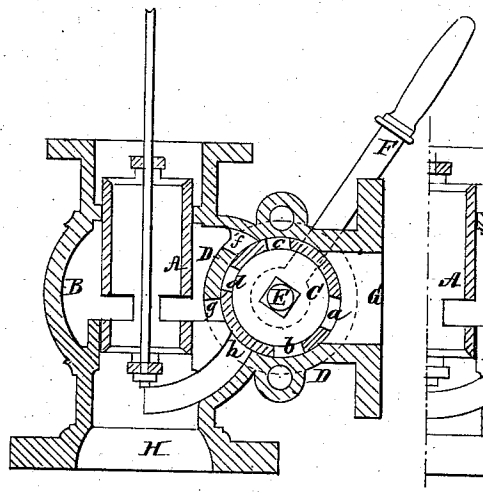


Fig. 3.

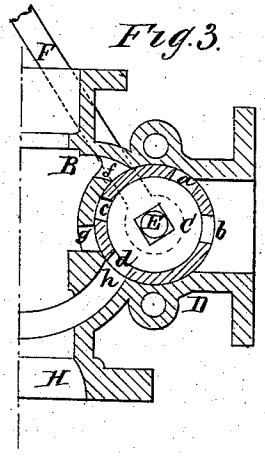


Fig. 2.

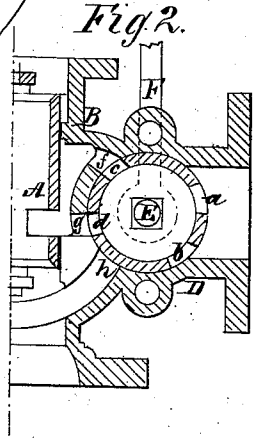
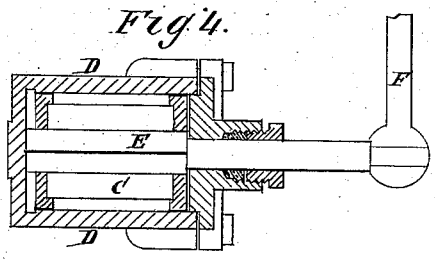


Fig. 4.



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UNITED STATES PATENT OFFICE

ALLAN TALBOTT, OF RICHMOND, VIRGINIA.

IMPROVEMENT IN COMBINED GOVERNORS AND THROTTLE-VALVES.

Specification forming part of Letters Patent No. **154,726**, dated September 1, 1874; application filed July 22, 1874.

To all whom it may concern:

Be it known that I, ALLAN TALBOTT, of Richmond, in the county of Henrico and State of Virginia, have invented a new and Improved Combined Throttle and Governor Valve; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figures 1, 2, 3 are sectional elevations; Fig. 4, a transverse section through the throttle-valve.

The invention relates to novel means, to be used in connection with a governor, for starting, stopping, or instantly changing the speed of a steam-engine without the employment of shifting-belts or other mechanism, all as hereinafter fully described, and subsequently pointed out in the claim.

A represents a side-apertured and tubular governor-valve, and B the case, in which its seat is formed. G is the throat or channel, through which steam passes thereinto, and in which I locate a hollow rocking-valve, C, having inlet-ports *a b* and outlet-ports *c d*. The former register with the throat G, and the latter with steam-conduits *f g h* in the valve-seat D. E is a shaft, which is preferably provided with a hand-lever, F, and to which the valve C is made fast.

The operation is as follows: In starting, the lever F rests on one side of shaft E, as shown in drawing, at an angle of about forty-five degrees, and neither of the ports *c d* register with the valve-seat ports *f g h*, thus admitting no steam to the governor, and allowing it to exercise no control over the speed of the machinery driven by the engine. As soon, however, as a sufficient velocity has been attained the lever F is made fast in a perpendicular position, the valve being thus turned, so as to cause the ports *c d* and *f g* to register, but the one *h* to be still covered, the governor now controlling the engine in the usual way. By giving the lever F another turn forward, so as to bring it again at an angle of about forty-five degrees, but on the opposite side of shaft E, the port *d* is caused to register with the port *h*. This produces a discharge of steam beneath the valve A, changing the speed from that allowed by the governor. By this means the engine is so brought at all times under the control of the engineer that he can instantly make any change rendered necessary or desirable by circumstances.

Having thus described my invention, what I claim as new is—

The combination with tubular governor-valve A of the lever F, rocking throttle-valve C having ports *a b c d*, and valve-seat D, having ports *f g h*, all arranged substantially as and for the purpose specified.

ALLAN TALBOTT.

Witnesses:

MARCELLUS SMITH,

CHAS. H. TALBOTT.