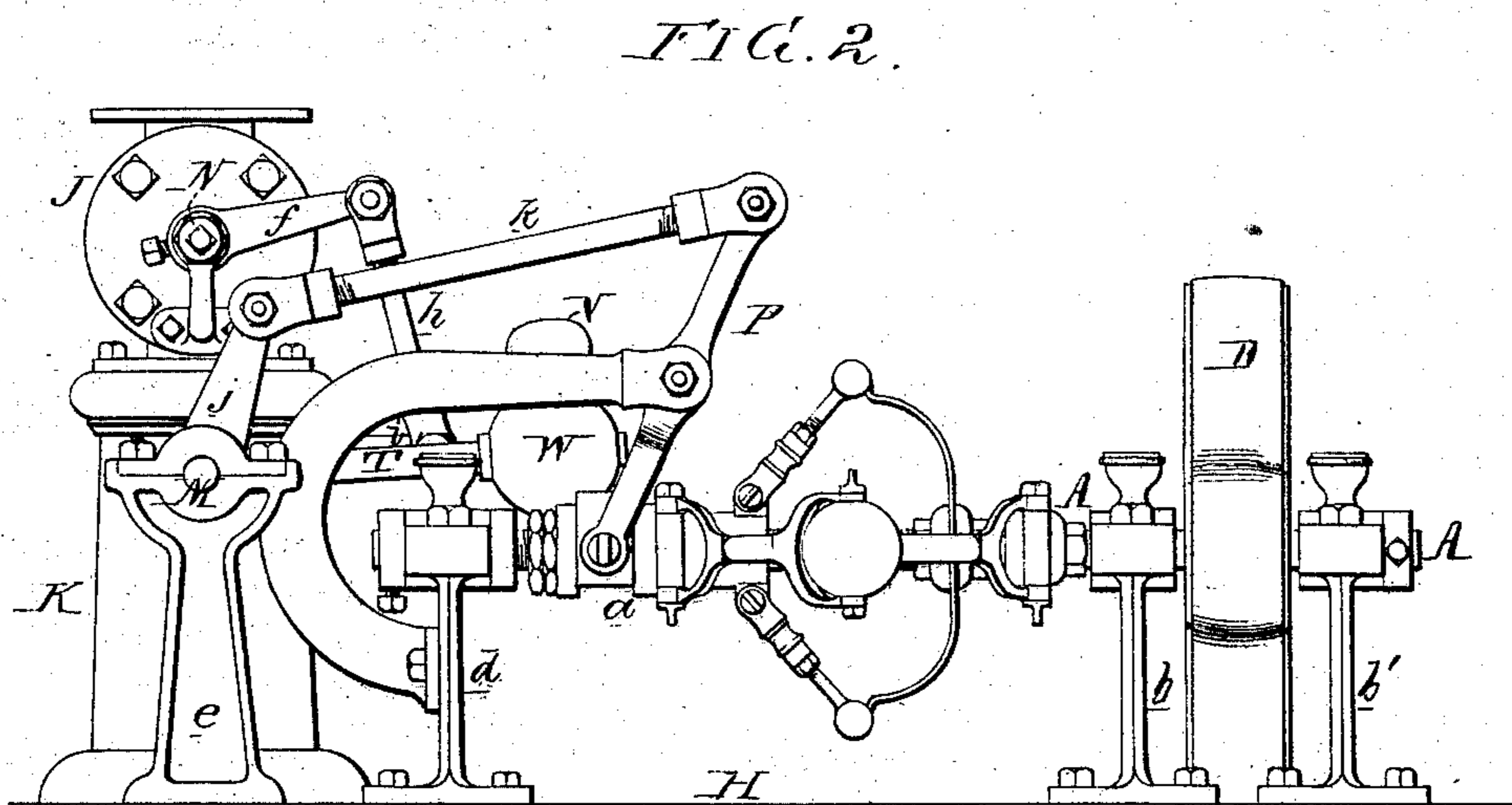
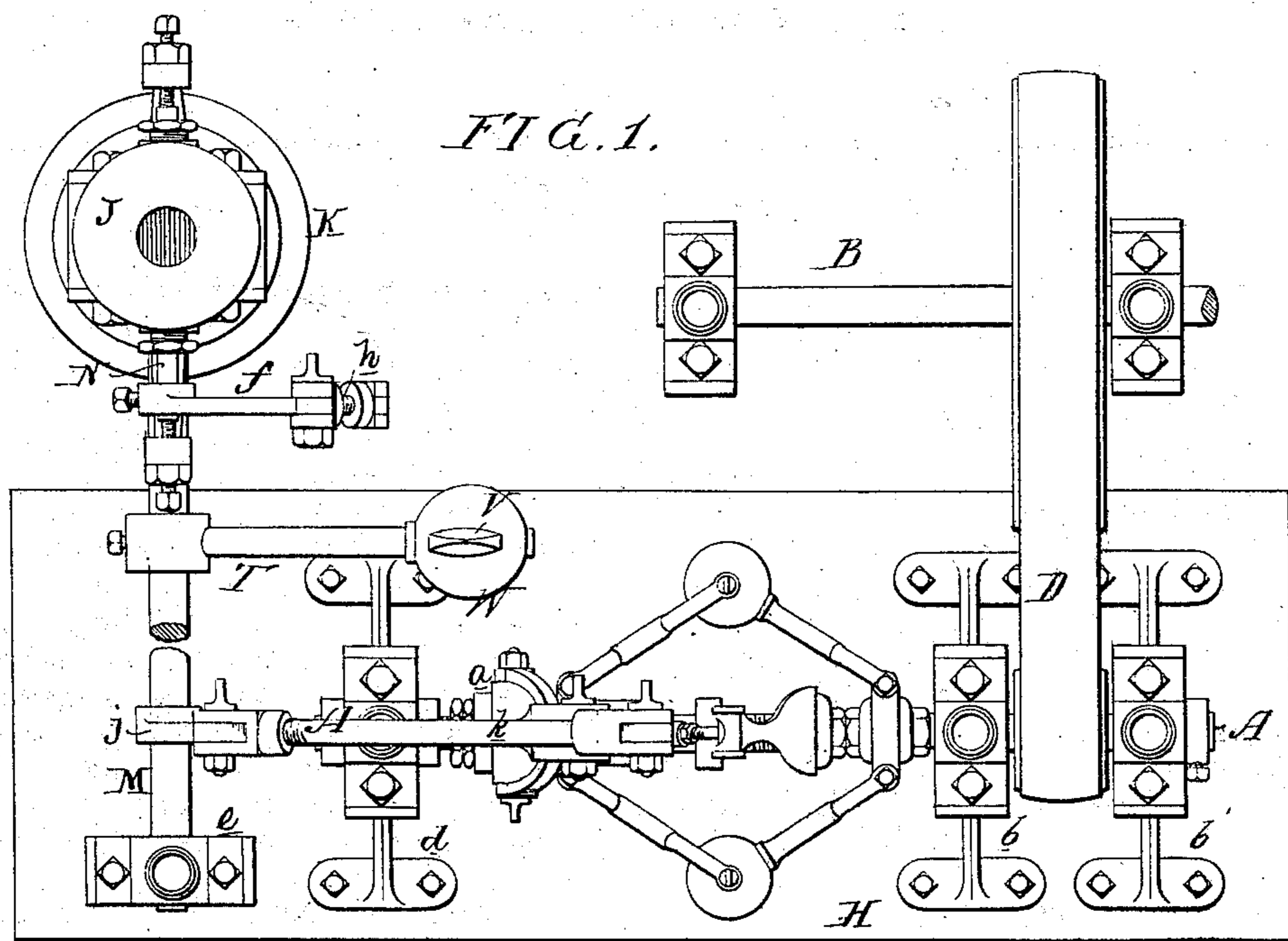


C. C. JENKINS.

Governors.

No. 154,678.

Patented Sept. 1, 1874.



Witnesses Hubert Houston  
Thomas McIlwain

Caldwell C. Jenkins  
By his Atty.  
Houston and Son.

# UNITED STATES PATENT OFFICE.

CALDWELL C. JENKINS, OF PHILADELPHIA, ASSIGNOR TO HIMSELF AND CHARLES B. LEE, OF WEST CHESTER, PENNSYLVANIA.

## IMPROVEMENT IN GOVERNORS.

Specification forming part of Letters Patent No. 154,678, dated September 1, 1874; application filed July 16, 1874.

*To all whom it may concern:*

Be it known that I, CALDWELL C. JENKINS, of Philadelphia, Pennsylvania, have invented certain Improvements in Governors, of which the following is a specification:

The object of my invention is the application to marine engines of a ball governor, by preference that for which Letters Patent No. 33,123 were granted to me and Hampton W. Evans on the 20th day of August, 1861; and a further object of my invention is the ready adjustment of the governor when circumstances demand such adjustment.

These objects I attain in the manner which I will now proceed to describe, reference being had to the accompanying drawing, in which—

Figure 1 is a plan view of the governor, throttle-valve, and connections; and Fig. 2, a side view.

A is the spindle, carrying, in the present instance, the governor for which Letters Patent were granted to me and Hampton W. Evans on the 20th of August, 1861, the said governor being so fully described in the said patent that it will only be necessary to refer to the sliding sleeve *a*, to which motion is communicated by the action of the balls in motion. The governor's spindle is driven directly from the propeller-shaft B by a belt, D, and revolves in bearings on suitable standards *b*, *b'*, and *d*, secured to a plate, H. J is the chest of the throttle-valve of the steam engine or engines, this chest being, in the present instance, situated on a pillar, K, secured to and communicating with the steam-chest of the engine. A rock-shaft, M, is adapted to suitable bearings, one of which, *e*, is secured to the plate H, the other being at any fixed point on the engine. The throttle-valve spindle N has an arm, *f*, connected by a rod, *h*, to an arm, *i*, on the rock-shaft M, to which is secured another arm, *j*, the latter being connected, by a rod, *k*, to one arm of a lever, P, the other arm of which embraces and is connected to a loose collar on the above-mentioned sliding sleeve *a* of the governor.

Marine engines differ to such an extent in their construction, and in their arrangement within the holds of the vessel, that the positions of the governors must also be varied, the position of the governor in the engine-room, in

respect to the steam-chest and throttle-valve, depending upon such convenient localities as may present themselves.

By the employment of the intermediate or counter shaft M, the adjustment of the entire governor from or toward the throttle-valve is much facilitated; the simple lengthening or shortening of the shaft, without any alteration of other parts of the mechanism, in most cases sufficing to insure the attachment of the base H of the governor in some permanent and convenient position in the engine-room.

It is important, in connection with marine-engine governors, that these instruments should admit of such ready alteration in their action as circumstances may suggest to the experienced engineer.

In order to afford facilities for quickly altering or adjusting the action of the governor, I secure to the counter-shaft M an arm, T, having a weight, W, which can be readily adjusted to any desired position on the arm, and secured, after adjustment, by a set-screw, *v*, the effect of the governor on the throttle-valve being more or less dependent on the position of this weight.

It is essential that the weighted lever T should be adjustable longitudinally on the counter-shaft, so that, after the position of the governor in relation to the throttle-valve and the length of the shaft have been determined, the lever may be moved to such a position on the said shaft as will best suit the convenience of the engineer who has to manipulate the weight.

I claim as my invention—

1. The counter-shaft M, combined with the throttle-valve of a marine engine and with the sliding sleeve of the governor, and operated by the latter, all substantially as and for the purpose set forth.

2. The combination of the counter-shaft M, the governor, throttle-valve, and the weighted arm T, secured to and adjustable on the counter-shaft, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

CALDWELL C. JENKINS.

Witnesses:

WM. A. STEEL,  
HUBERT HOWSON.