

B. P. PERRY.  
Valve-Gear for Engines.

No. 210,353.

Patented Nov. 26, 1878.

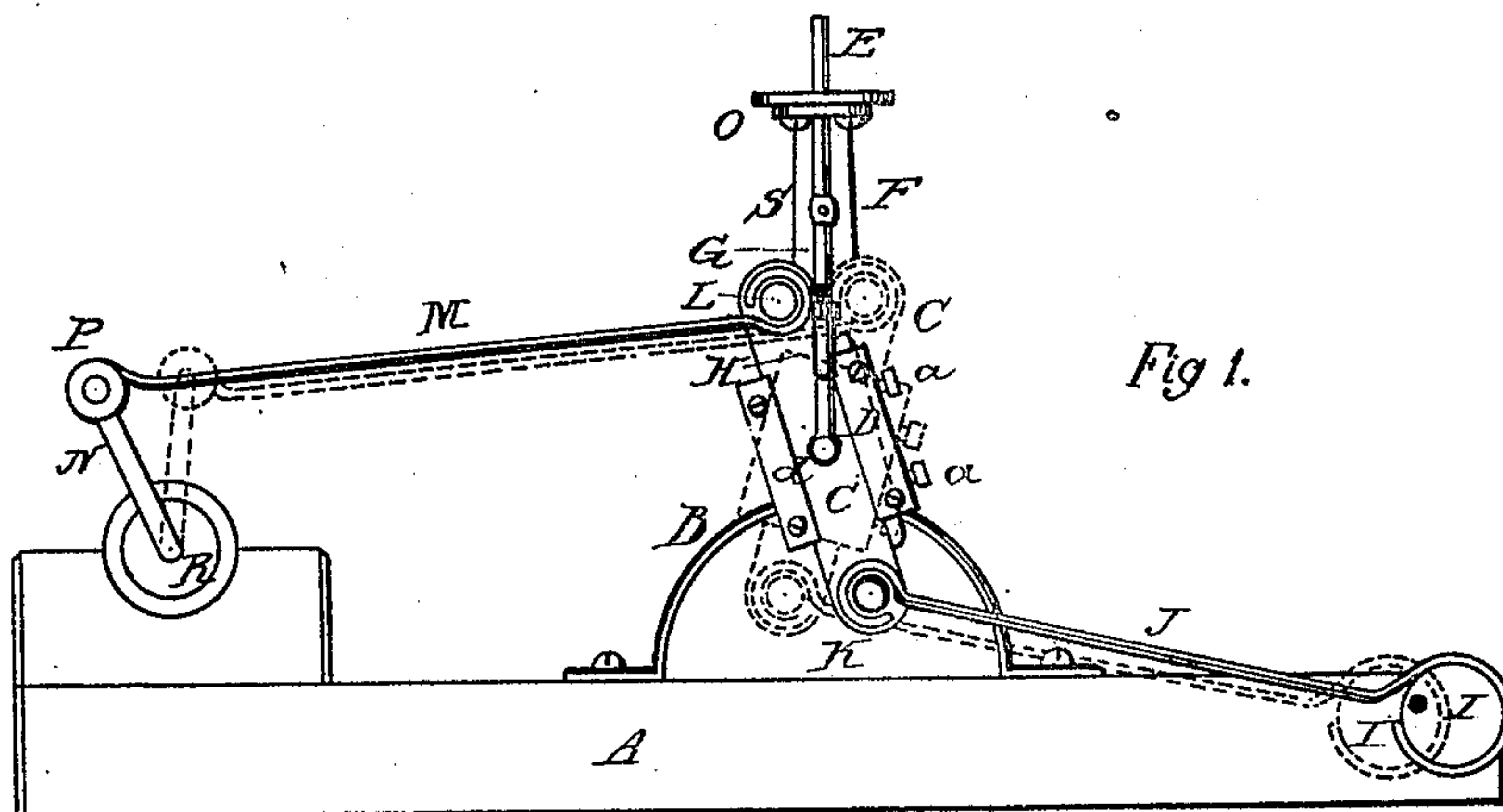


Fig 1.

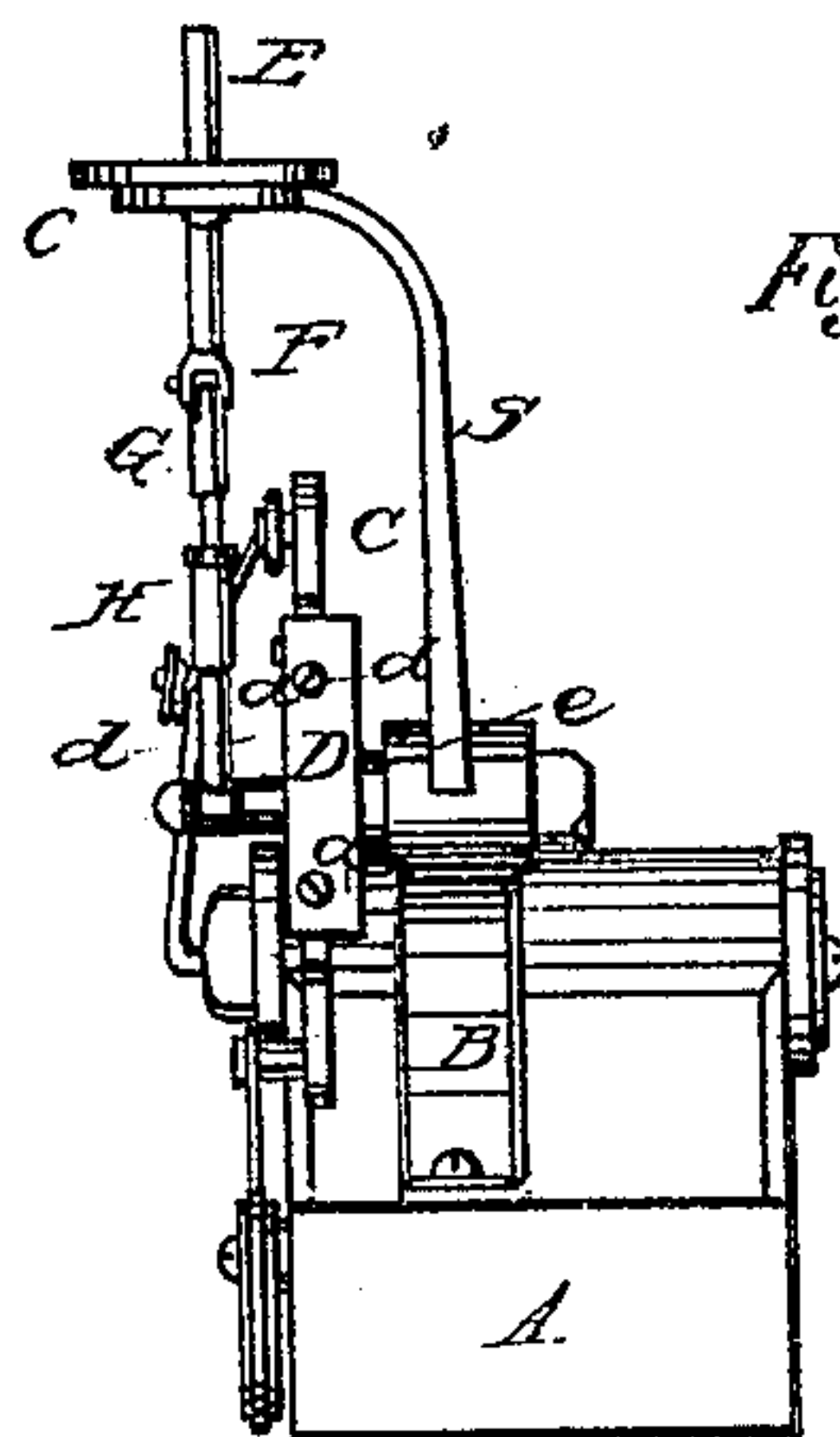


Fig 2.

Witnesses:

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*per D. C. Allen*

*attly*

# UNITED STATES PATENT OFFICE.

BENJAMIN P. PERRY, OF RICHMOND, INDIANA.

## IMPROVEMENT IN VALVE-GEARS FOR ENGINES.

Specification forming part of Letters Patent No. **210,353**, dated November 26, 1878; application filed November 18, 1878.

*To all whom it may concern:*

Be it known that I, BENJAMIN P. PERRY, of Richmond, in the county of Wayne and State of Indiana, have invented certain Improvements in Valve-Movements, of which the following is a specification:

My invention relates to a novel valve-movement for steam-engines, whereby the throw of the valve is increased or diminished by the action of the governor by means of a self-adjusting slide, as hereinafter fully described, and set forth in the specification and claims.

Figure 1 is a side elevation. Fig. 2 is an end-elevation.

A represents the bed. B is a standard attached thereto. C is the self-adjusting slide-plate, actuated by the governor attached to the stem E. The stem E has a joint, F, to allow the slide-plate C to work freely without hinderance. The portion G of the stem is provided with a screw-thread to screw into the socket H, for vertical adjustment when required. The slide-plate C is held in place by means of the plate D and set-screws *a*. The stem connecting the governor to the adjustable slide-plate C is pivoted to the stud *d* attached to the slide-plate.

I represents the eccentric attached to the fly-wheel shaft of the engine, and is connected to the slide-plate C by means of the connecting-rod J, attached to the wrist-pin K. The upper end of the slide-plate C has the wrist-pin L, to which the connecting-rod M is attached, and connected to the lever N by means of the

wrist-pin P. The lever N operates the rotary valve R. The governor is attached to the circular plate O, attached to the standard S.

The plate D oscillates upon the stud *e*. (Seen in Fig. 2.) The plate D and slide-plate C act entirely independently of each other, the plate D oscillating only on the stud *e*, while the slide-plate C oscillates with plate D, and also slides longitudinally on plate D to change the throw of the valve according to the speed of the governor. Thus it will be seen that the center of the slide-plate C at the pivot *d* is easily changed by the speed of the governor, making the whole moving mechanism extremely sensitive.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In valve-gear for engines, the plate D, pivoted centrally on a fixed point, and having attached thereto an adjustable sliding plate, the opposite ends of said plate being connected respectively to the valve-stem and the eccentric, substantially as herein shown and described.

2. The stem E, provided with the joint F and socket H, in combination with the oscillating slide-plate C and plate D, substantially as and for the purpose specified.

BENJAMIN P. PERRY.

Witnesses:

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