

W. A. L. Kirk,  
Governor.

N<sup>o</sup> 62,343.

Patented Feb. 26, 1867.

Fig. 2.

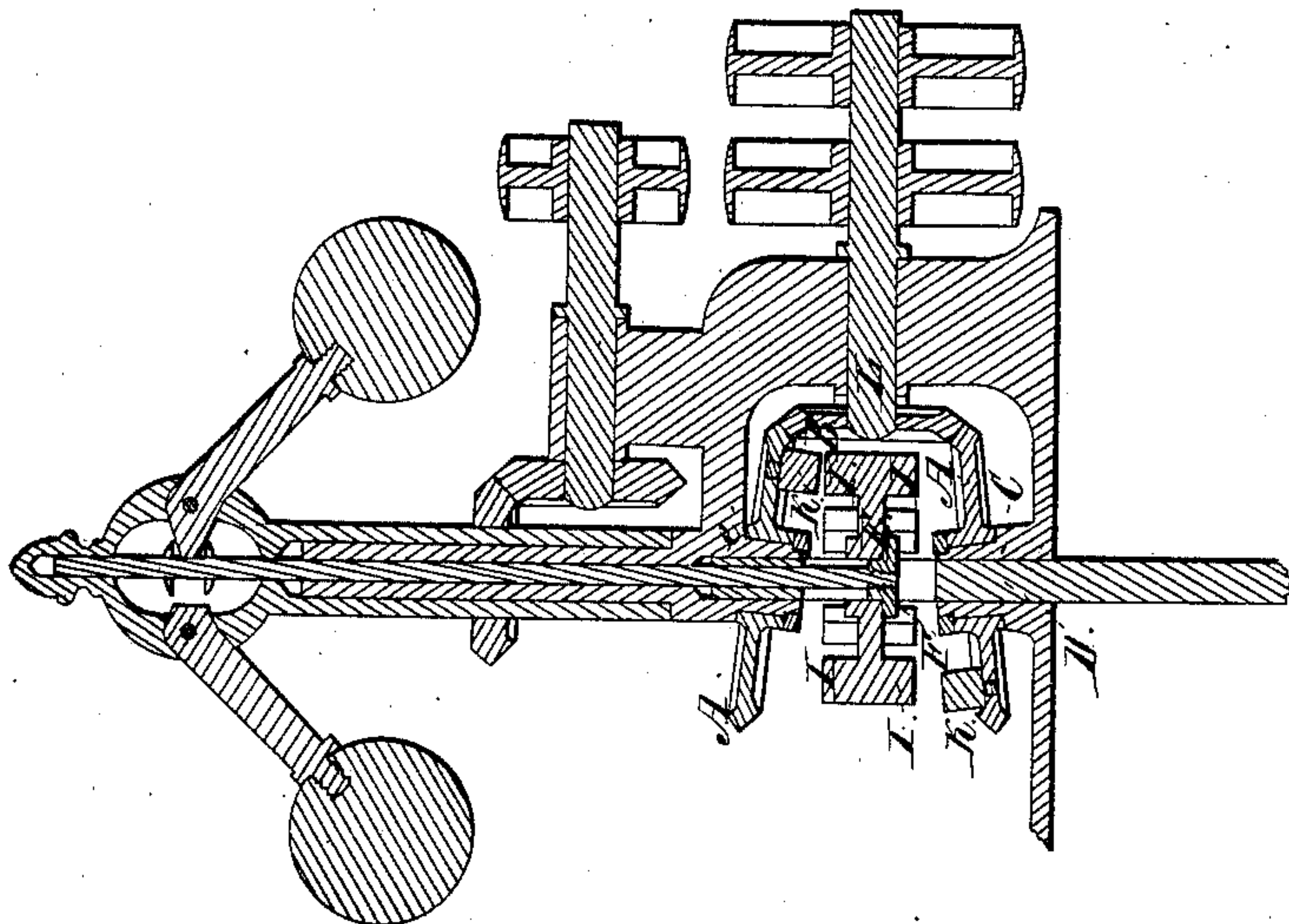
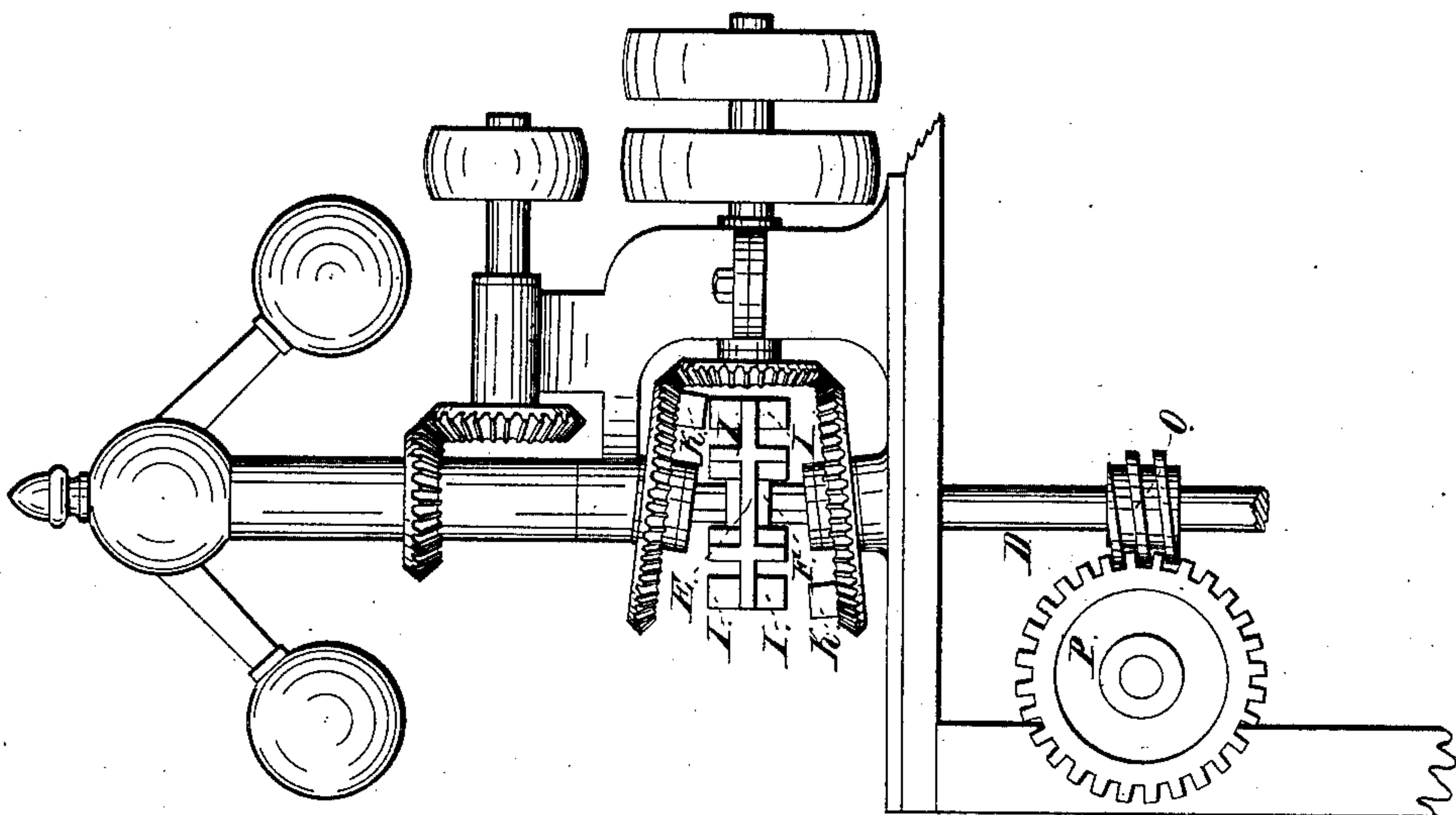


Fig. 1.



Witnesses:

M. C. Seward  
O. G. Dyer

Inventor:

W. A. L. Kirk

# United States Patent Office.

WILLIAM A. L. KIRK, OF HAMILTON, OHIO.\*

*Letters Patent No. 62,343, dated February 26, 1867.*

## IMPROVEMENT IN GOVERNOR.

*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, WILLIAM A. L. KIRK, of Hamilton, Butler county, Ohio, have invented a new and useful improvement in Water-Wheel and Steam-Engine Regulators; and I hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of these specifications.

My invention consists in imparting to a water-wheel gate or steam-engine governor (or throttle) valve a variable, intermittent, and alternating movement, produced by the arrangement of the wheels and pinion, as shown in the accompanying drawings.

Figure 1 is a side elevation of a regulator embodying my improvement.

Figure 2 is a transverse section, showing more fully the manner of construction and arrangement of parts for the above-named object.

A A are bevel-wheels working in connection with the pinion B, and set on stationary studs C C at an angle a little less than a right angle with the drive-shaft L. On the face of the wheels A A are driving-lugs K K, arranged so as to come in contact with similar lugs I I in the intermediate driver E, when the same is made to raise or lower by means of the governor-stem, which is attached to driver E by means of the key F. When the driver E is thus made to move, the shaft D, on which is keyed the worm O, revolves, giving an opening or closing movement to a valve or gate; and in consequence of the wheels A A being placed at an angle with the face of the driver E, a variable intermittent motion is imparted to the worm-wheel P, varying from a slight touch to an entire revolution of E, depending on the variation in the speed of governor, thus supplying the quantity of water to a water-wheel necessary to preserve a uniform speed.

What I claim, and desire to secure by Letters Patent, is—

The arrangement of two wheels A A, or their equivalents, on any angle varying from a right angle from the pinion B in which they work, the same being provided each with a lug, K K, working in connection with similar lugs I I I I on the intermediate driver E, substantially in the manner and for the purpose specified.

WM. A. L. KIRK.

Witnesses:

M. D. SEWARD,

AUGUST FRITZ.

\* Assort to Owens, Lane, Dyer & Co. of same place.