E. TOWNS.

Governor.

No. 202,892. Patented April 23, 1878.

Fig. 1.

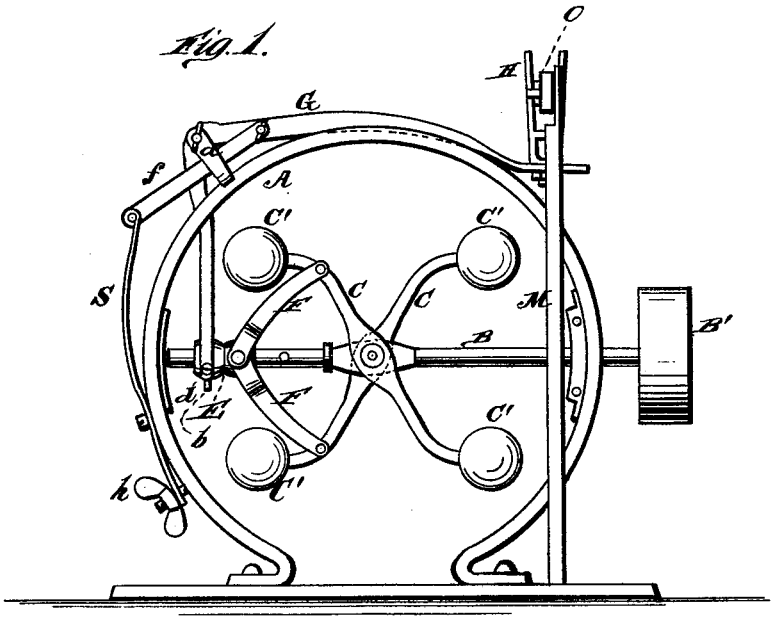


Fig. 2.

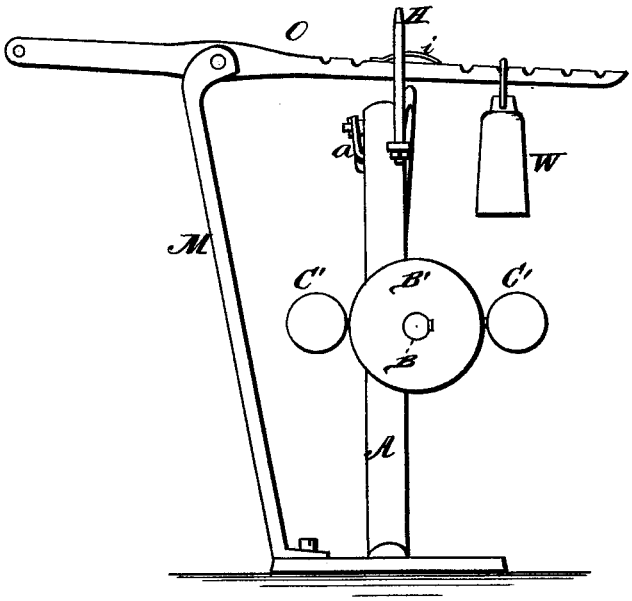
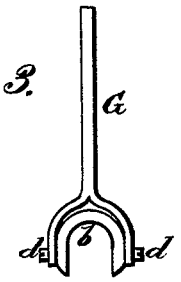


Fig. 3.



WITNESSES

Robert Everett

James J. Sheehy.

INVENTOR

Elson Towns

Gilman Smith & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

ELSON TOWNS, OF CISNE, ILLINOIS.

IMPROVEMENT IN GOVERNORS.

Specification forming part of Letters Patent No. **202,892**, dated April 23, 1878; application filed March 16, 1878.

To all whom it may concern:

Be it known that I, ELSON TOWNS, of Cisne, in the county of Wayne and State of Illinois, have invented a new and valuable Improvement in Governors; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of a front view of my governor. Fig. 2 is a side view, and Fig. 3 is a detail view thereof.

The nature of my invention consists in certain improvements in a governor for steam-engines or other motive powers where a regulator is applicable, as will be hereinafter more fully set forth.

The annexed drawings, to which reference is made, fully illustrate my invention.

A represents a frame on which the working parts are suspended. In suitable boxes on this frame is placed the shaft B, having a pulley, B′, on its end.

C C are the ball-arms, made in the form of an **S**, and pivoted through their centers on the opposite sides of the shaft B. These arms are on their ends provided with balls or weights C′, which may be fast thereon or adjustable, if desired.

E is a loose sleeve on the shaft B, having a circumferential groove, and connected to the arms C by rods F F, with working joints at each end of said rods. G is an elbow-lever, pivoted at its angle to a projection, *a*, on the frame A, the lower end of said lever being forked and connected to the groove in the sliding sleeve E by a semicircular washer, *b*, and pins or screws *d d*.

The outer end of the lever G is perforated, and in either hole is attached a fork, H, which may be turned and adjusted so as to accommodate any required position, and is secured by a screw, and acts as a locking or holding device in connection with the suspended weighted lever hereinafter described.

O is a lever, suspended on a post, M, by a joint or fulcrum, said lever resting in the fork H, while its other end is to be connected to the valve gage or shifter, regulating the amount of power to be applied to the machine to be governed. This also is changeable to suit special requirements.

The pulley B′ on the shaft B is connected to the engine or machine to be governed by a belt. W is a weight suspended on the end of the lever O, near the fork H, and by moving this weight out or in on the lever the movement is accelerated or retarded, as required.

S represents a long string, attached near its center to the frame A, and its upper end connected to the lever G by a rod, *f*, having a joint at each end. The lower end of the spring S is connected to the frame by a thumb-screw, *h*. When the spring S is used the weight W may be dispensed with and the lever O placed below a cross-bar in the fork H, a small spring, *i*, on said lever keeping the joint tight.

By tightening or loosening the thumb-screw *h* the motion is increased or diminished, as desired.

The arms C may rest upon shoulders or collars on the shaft B when the machine is at rest, thus obviating a jarring, which often occurs when the machine is starting or running slowly. The arms C may be made single, if desired, and certain modifications may be made in the form or location of the lever G and spring S without departing from the spirit of my invention, and, with slight modifications, a governor on the same principle and of suitable size may be used as a regulator for clocks and watches.

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

1. In combination with a governor, substantially as described, a sliding sleeve, E, elbow-lever G, and a locking device, constructed and operated substantially as and for the purpose set forth.

2. In combination with the shaft B, cross-arms C, with balls C′, rods F, and sleeve E, the lever G, spring S, connecting-rod *f*, fork H, and lever O, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

ELSON TOWNS.

Witnesses:
NOAH W. SKELTON,
J. P. BILLINGTON.