

T. B. McConaughey,

Governor.

N^o 69,458.

Patented Oct. 1, 1867.

Fig: 1

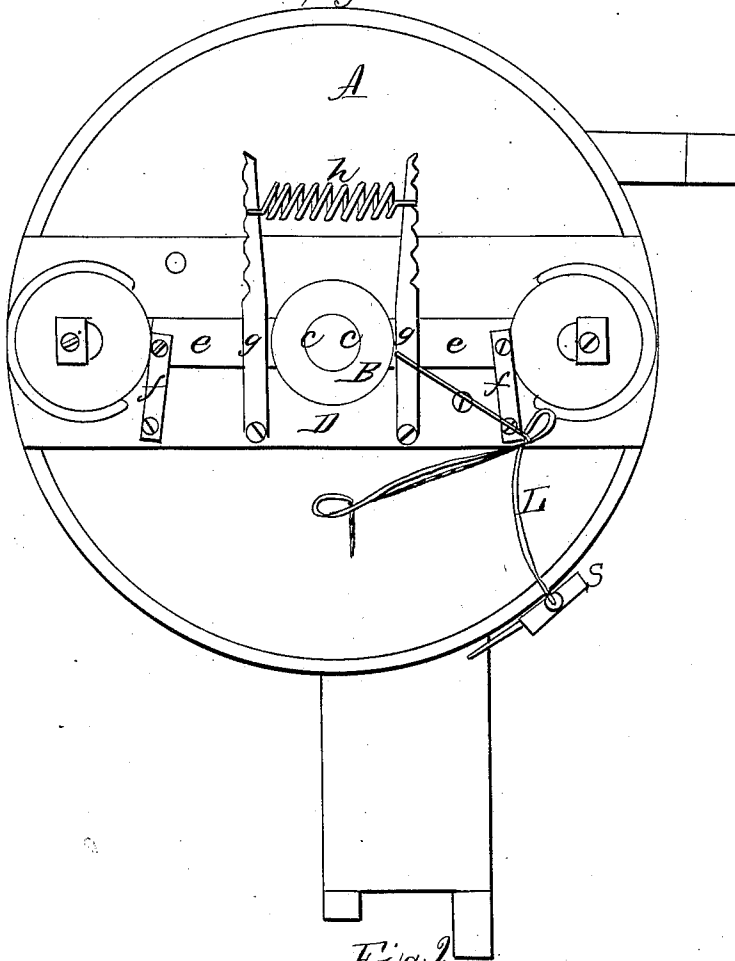
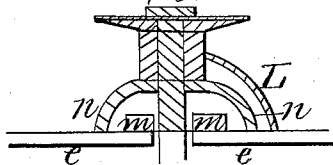


Fig. 2



Witnesses:
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THOMAS B. McCONAUGHEY, OF NEWARK, DELAWARE.

Letters Patent No. 69,458, dated October 1, 1867.

IMPROVEMENT IN GOVERNORS.

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, THOMAS B. McCONAUGHEY, of Newark, Delaware, have invented certain new and useful Improvements in Governors; and I hereby declare that the following is a true, full, and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon. In the annexed drawings which make a part of this specification—

Figure 1 represents a side elevation of my governor.

Figure 2 is horizontal section of the governor and arms attached.

The letter A, in fig. 1, exhibits the balance-wheel, with the governor B placed on the end of shaft C outside of the balance-wheel, the said governor being constructed and arranged as herein described. D represents a broad board of suitable thickness, extending across the balance-wheel, having its centre to correspond with the centre of the balance-wheel. On this board are the two arms *e e*, which are made circular at their outer ends, (see fig. 1.) The said arms are kept in position as follows: first, by means of a bolt which passes through an oblong hole in the circular heads of arms *e e*, these bolts having large heads, as shown in the drawings; secondly, by the notched levers *g g*, which play laterally on the bolt that confines them to board D, and act on the arms *e e* by a bolt that confines them to said arms. In addition to the levers *g g*, the two guide-bars *f f* are pivoted to the arms *e e* and board D, which confine the said arms to a lateral motion. *h* represents a spiral spring, the ends of which are looped over the notched levers *g g*. The inner end of governor B is hollowed out, having the rim or flange *n* at its outer circumference. *m* represents a shoulder on arms *e e*, which will press against flange *n* when the arms *e e* are thrown outward by the rapid motion of the governor B. L designates a brake-lever, which is bent so as to form a loop near its centre, to which loop a cord is fastened, one end of said cord being attached to the governor, the other part, after having been secured to a loop at the end of the upper arm of lever L, is made to extend sufficiently far to be fastened, when required, to a pin in the frame of the horse-power. To the lower arm of lever L is fastened the brake S, the action of which will be hereinafter described.

The operation of my machine is as follows: When the fly-wheel to which the governor is attached is made to revolve rapidly the arms *e e* will be by centrifugal force thrown outwards so that the shoulders *m m* will press against the flange *n*. This pressure will cause the governor B to revolve and wind up the cord attached to the brake-lever L, and the centre of the brake-lever being elevated by the winding up of the cord, will bring the brake S in contact with the balance-wheel A, and check its motion. When the motion becomes too slow, the arms *e e* will be drawn together by the spiral spring *h* operating on notched levers *g g*, and the flange *n* being now relieved from the pressure of shoulders *m* on arms *e*, the motion of the balance-wheel will be unimpeded. The speed may be changed from fast to slow by shifting the spring *h* in the notches of levers *g*, so as to increase or diminish the pressure of arms *e e* on the flange *n*. When it is desired to stop the motion of my machine entirely, the looped end of cord L will be passed over a pin on the rim of the driving-wheel, and the brake S made to press against the circumference of the balance-wheel A.

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

1. The combination of notched levers *g g* with spiral spring *h*, constructed as and for the purpose set forth.
2. The looped lever L when combined with brake S in the manner and for the purpose described.
3. The governor B, in combination with arms *e e*, notched levers *g g*, the spring *h*, and lever L, the whole constructed and operating in the manner and for the purpose substantially as herein set forth.

THOS. B. McCONAUGHEY.

Witnesses:

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