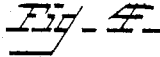
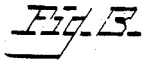
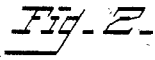
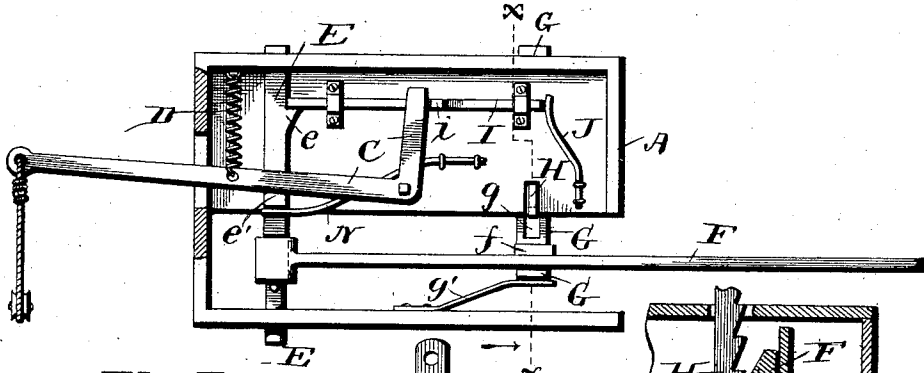
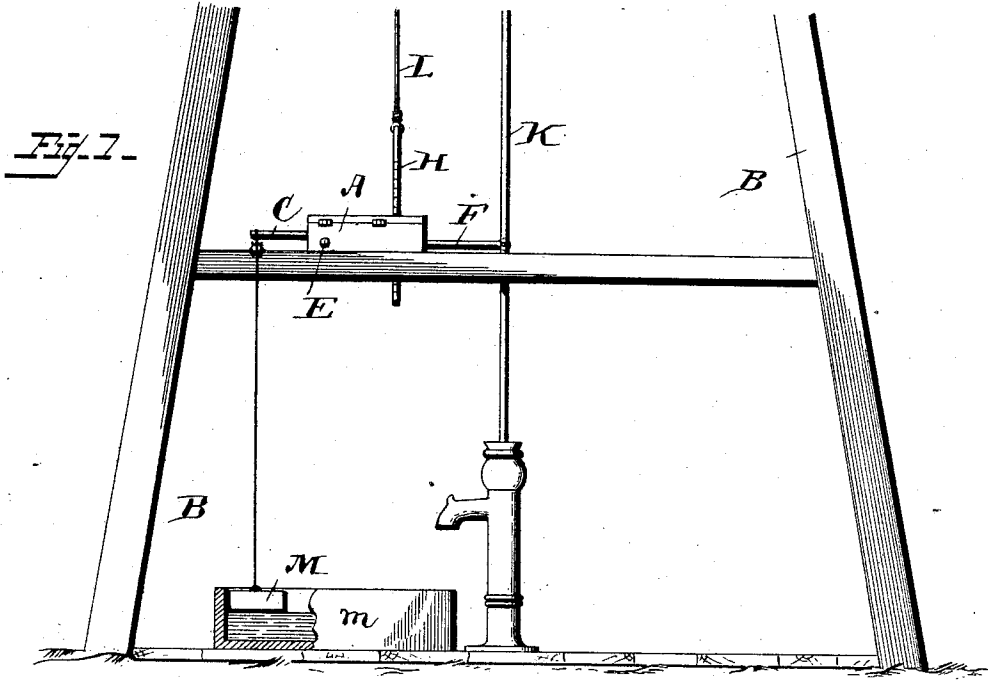


(No Model.)

T. L. REGESTER.
WINDMILL GOVERNOR.

No. 472,549.

Patented Apr. 12, 1892.



Witnesses.
Albert Seiden.
Van Buren Hillyard

Inventor
Thomas L. Register.

By his Attorneys

thorneys
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UNITED STATES PATENT OFFICE.

THOMAS LEILE REGESTER, OF TEKAMAH, NEBRASKA.

WINDMILL-GOVERNOR.

SPECIFICATION forming part of Letters Patent No. 472,549, dated April 12, 1892.

Application filed April 15, 1891. Serial No. 389,073. (No model.)

To all whom it may concern:

Be it known that I, THOMAS LEILE REGESTER, a citizen of the United States, residing at Tekamah, in the county of Burt and State of Nebraska, have invented certain new and useful Improvements in Windmill-Governors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to windmill-regulators and aims to provide simple and efficient means for controlling the operation of the machine and which will be positive in its action and throw the mill out of gear the moment the water in the tank has reached a predetermined level and in gear when the water in the said tank falls below the said level.

The improvement consists of the novel features, which will be hereinafter more fully described and claimed, and which are shown in the annexed drawings, in which—

Figure 1 is a side view showing the application of the invention. Fig. 2 is a top plan view of the regulator. Fig. 3 is a detail cross-section on the line X X of Fig. 2. Fig. 4 is a detail view showing the operation of the catch on the ratchet-bar while the lever is regaining itself for another stroke.

The operating parts of the regulator are inclosed in the case A, which is secured to any suitable part of the tower B, and which protects them from the weather. The elbow-lever C is pivoted to operate in a horizontal plane, and is operated on by the spring D. The sliding bar E, provided on its inner side with the stop *e* and on its top side with the stop *e'*, is pressed inward by the spring *n*. The long lever F is journaled at its inner end on the sliding bar E, and is provided on one side with the stop *f*.

The right-angled sliding catch G is slotted at *g* and is acted on by the spring *g'*. The upper end of the catch is adapted to bear against the lever F. The ratchet-bar H works through the case and passes through the slot *g* in the catch G. The sliding bar I, acted on by spring J, is provided with stop *i*, which is adapted to be struck by the short arm of the lever C.

In assembling and connecting the parts the pump-rod K is connected with the lever F, the cable or chain L for throwing the mill out of gear with the ratchet-bar H, and the float M in the tank *m* with the elbow-lever C.

The operation of the invention is as follows: When the mill is in gear, the sliding bar I is in engagement with the stop *e* on the sliding bar E, and the lever F and the catch G are out of engagement with the ratchet-bar H. As soon as the water in the tank rises to the predetermined level the float M is buoyed up and the spring D, acting on the lever C, actuates it and effects a disengagement of the sliding bar I from the sliding bar E. The spring *g'*, acting on catch G, and the spring N, acting on the bar E, move the catch G and the bar E, respectively, in and bring the lever F in engagement with the ratchet-bar H. The pump-rod on its next downstroke carries the ratchet-bar H down with it and throws the mill out of gear. When the water in the tank falls below the desired level, the float descends and pulls on the elbow-lever C and moves the bar E out and effects a disengagement of the lever F and the catch G from the ratchet-bar H. The ratchet-bar H is held down when the mill is out of gear by means of the catch G, and in the event of more than one stroke of the pump-rod being required to throw the mill out of gear will retain the said ratchet-bar in the depressed position while the lever F is returning to obtain a new engagement on the said ratchet-bar. The lever F will not always be released at the same point in its movement, and it being desirable to have it engage with the bar H the instant the bar E is released the said bar H is provided with a series of teeth, one of which will be engaged by lever F the moment the same strikes the bar H. Should the lever F be at its highest limit when engagement is effected between it and the bar H, one downstroke of the pump-rod will be sufficient to throw the mill out of gear. However, should the said lever F be near the lowest limit of its travel when it engages with the said bar H it will have to return to effect the desired result of throwing the mill out of the wind.

It will be observed that the spring *g'* will hold the catch G in engagement with the teeth

of the ratchet-bar H when the lever F is in position to actuate the said bar H. The lever F, catch G, and the rack-bar H are so constructed and arranged that the lug *f* on the said lever F will engage with the teeth of the rack-bar, being held in engagement with the teeth of the said rack-bar by means of the spring in the said lever F. Sufficient space is provided between the vertical extension of the catch G and the rack-bar H to permit the free working of the lever F and the riding of the said lug or tooth *f* over the rack-bar teeth without disengaging the catch G from the said rack-bar.

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

1. In a windmill-governor, the combination, with the elbow-lever C, acted on in one direction by a spring and in an opposite direction by the float, and the sliding bar E, to be actuated by the lever C, and the spring N, acting on bar E in opposition to the lever C, of the sliding bar I to engage with and hold bar E against tension of spring N; the lever F, carried by the sliding bar E, and the ratchet-bar H, connected to the pull-cord, substantially as and for the purpose described.

2. In a windmill-governor, the combination, with the elbow-lever C and the sliding bar E to be actuated by lever C, and the spring N, acting on bar E in opposition to the lever C, of the sliding bar I to hold bar E against tension of spring N, the lever F, carried by the bar E, the ratchet-bar H, connected to the pull-cord, and the sliding catch G, to hold bar H when depressed, substantially as and for the purpose described.

3. A windmill-governor comprising a case, an elbow-lever C to be connected to the float in the tank, the spring D, acting on the said lever in opposition to the float, the sliding bar E, having stops *e* and *e'*, the spring N for actuating the bar E, the sliding bar I, having stop *i*, the spring J for moving bar I, the lever F, journaled on the bar E, the angle-catch G, the spring *g'* for catch G, and the ratchet-bar H, passing through the catch G and adapted to be engaged by the lever F and the catch G, substantially as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

THOMAS LEILE REGESTER.

Witnesses:

P. MORDEN,
C. S. ECKLEY.