

P. I. STORVIK.
GOVERNOR FOR WINDMILLS.

APPLICATION FILED JULY 5, 1902.

NO MODEL.

Fig. 1

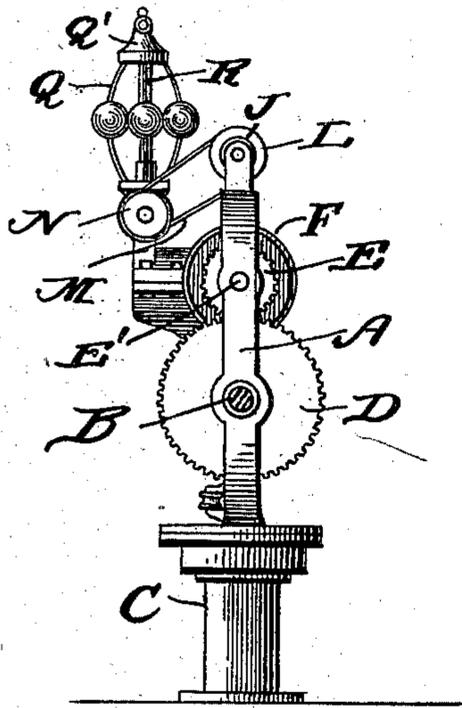


Fig. 3.

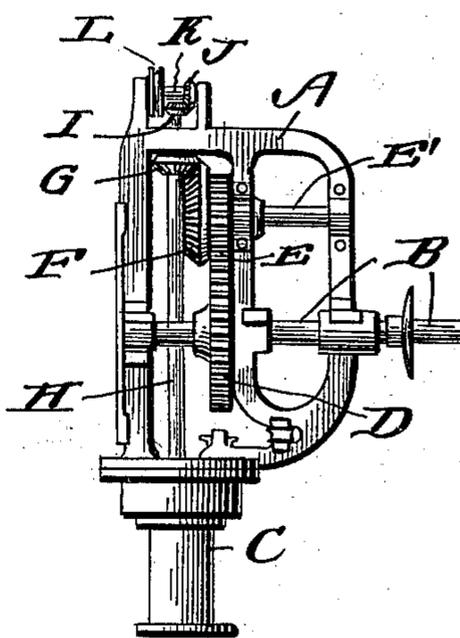
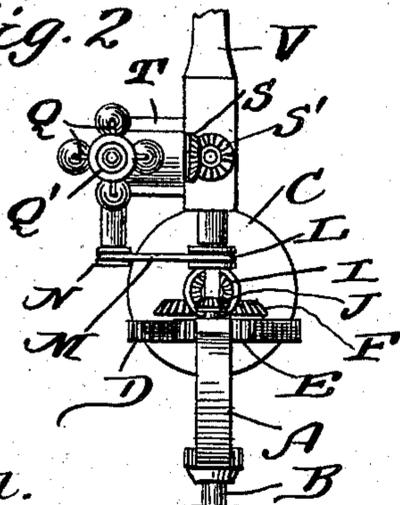


Fig. 2



Line of Mill Wheel.

Fig. 4.

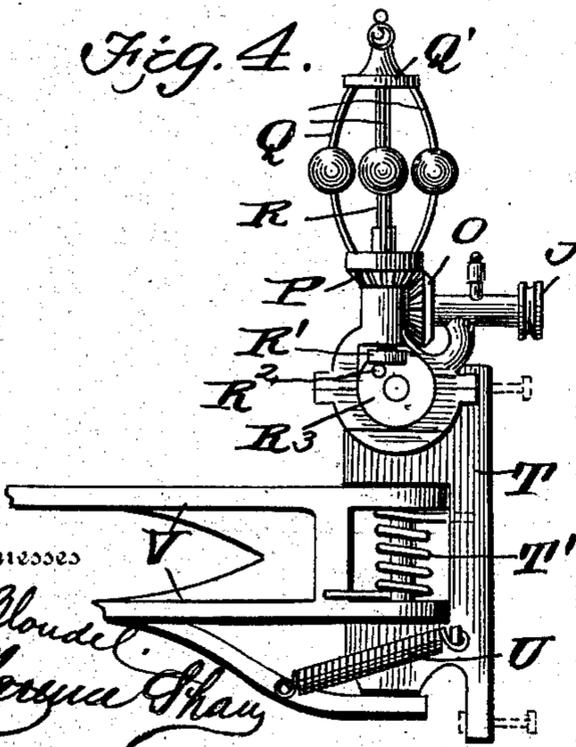
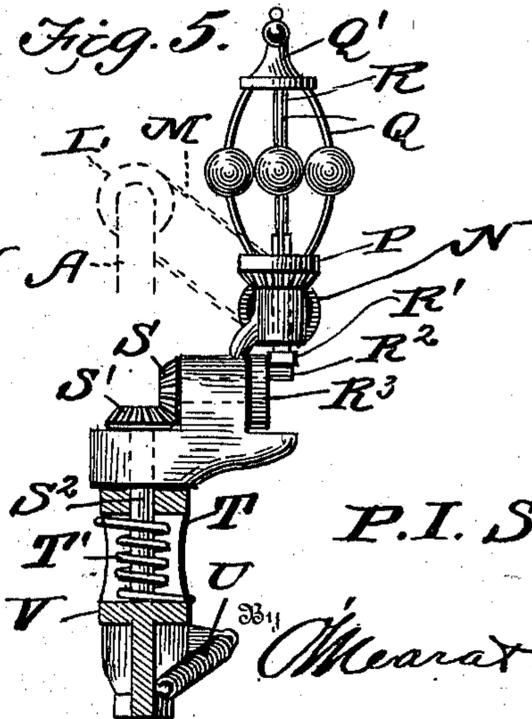


Fig. 5.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

PAUL IVERSEN STORVIK, OF STERLING, ARKANSAS.

GOVERNOR FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 723,332, dated March 24, 1903.

Application filed July 5, 1902. Serial No. 114,446. (No model.)

To all whom it may concern:

Be it known that I, PAUL IVERSEN STORVIK, a subject of the King of Sweden and Norway, residing at Sterling, in the county of Chicot and State of Arkansas, have invented a new and useful Governor for Windmills, of which the following is a specification.

This invention relates generally to wind-wheels, and more particularly to a governor for wind-wheels, the object being to provide a simple and efficient device capable of attachment to wind-wheels now in use for the purpose of regulating the speed and maintaining a uniform action of the operating mechanism connected with the wheel.

With these objects in view the invention consists in the novel features of construction, combination, and arrangement of parts, all of which will be fully described hereinafter and pointed out in the claims.

In the drawings forming a part of this specification, Figure 1 is a front elevation of a wheel-casting provided with my improved construction of governor. Fig. 2 is a top plan view of the same. Fig. 3 is a side view of the wheel-casting and shaft-operating mechanism, the governor being omitted. Fig. 4 is a side elevation illustrating the construction and arrangement of the governor, the wheel-casting being omitted; and Fig. 5 is an end view of the governor.

In carrying out my invention I employ a wheel-casting A, in which is journaled a wheel-shaft B, said casting being connected to the derrick by means of the tubular head or cap C. A gear D is rigidly mounted upon the wheel-shaft B and meshes with the pinion E, mounted upon the end of a shaft E', journaled in the wheel-casting, and integral with the pinion E is the beveled gear F, which meshes with the beveled gear G, mounted upon the shaft H, which passes downwardly through the tubular head C. The reduced upper end of the shaft F extends through the top of the wheel-casting and carries the beveled gear I, meshing with the beveled gear J, mounted upon a shaft K, journaled in a bracket arranged upon the upper end of the wheel-casting, said shaft also carrying a pulley L, around which travels a belt M, which runs to the pulley N, journaled in a suitable bearing-bracket and carrying a beveled gear

O, which meshes with the beveled gear P, to which the governor-arms Q are attached, said governor-arms being connected at their upper ends by the head Q', carrying a shaft R, which extends downwardly through the gear P and carries a foot-piece R', adapted to bear upon a pin R², arranged upon the face of a disk R³, said disk being mounted upon a shaft carrying a beveled gear S at its opposite end, which gear in turn meshes with another beveled gear S', mounted upon the end of a shaft S², which is rigidly connected to the vane-casting V. The casting T, in which these various shafts are journaled, is securely bolted to one side of the wheel-casting, as most clearly shown, and a spiral spring T' surrounds a shaft S², one end bearing against the casting T, while the other end bears against the vane-casting, and a coil-spring U also connects the casting T and vane-casting V, said spring serving to normally hold the vane in its proper relative position with relation to the wheel and its casting.

In operation the wheel rotates in the same manner as wind-wheels in general use and transmits its motion to the shaft H by means of the gear D, pinion E, and beveled gears F and G. At the same time pulley-wheel L imparts motion to the governor through the medium of the belt M and pulley-wheel N, and should the speed of the wind-wheel become excessive the governor will of course be operated and depress the rod or shaft R, causing the foot R' to press down upon the pin, turning the disk and swinging the vane around through the medium of the gear-wheels S S' and shaft S². The moment the vane is swung around the wheel will be shifted, owing to the action of the wind upon the vane, and this shifting of the wheel will tend to reduce its speed, and when the speed becomes normal all of the parts will return to their normal positions.

It will thus be seen that I provide an exceedingly simple and efficient construction of wind-wheel regulator or governor capable for use in connection with the ordinary wind-wheels now in common use.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a wind-wheel governor, the combi-

nation with the wheel and vane castings, of a governor attached to the wheel-casting, a shaft attached to the vane-casting, a disk having a pin projecting from one face thereof, said disk being connected to the shaft 5 carried by the vane, by means of gearing, and a governor rod or shaft having a foot adapted to act upon a pin carried by the disk, substantially as specified.

10 2. In a wind-wheel governor, the combination with the vane and wheel castings, and springs for holding them in their proper relative positions, of a casting secured to the wheel - casting and carrying a governor, a

shaft rigidly connected to the vane, and hav- 15 ing a beveled gear at its upper end, a beveled gear carried upon the shaft at right angles to the first-mentioned shaft and having a disk at its opposite end said disk having a pin projecting therefrom, a governor-shaft 20 having a foot at its lower end adapted to act upon the said pin and means for operating the governor from the wheel-shaft, for the purpose specified.

PAUL IVERSEN STORVIK.

Witnesses:

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