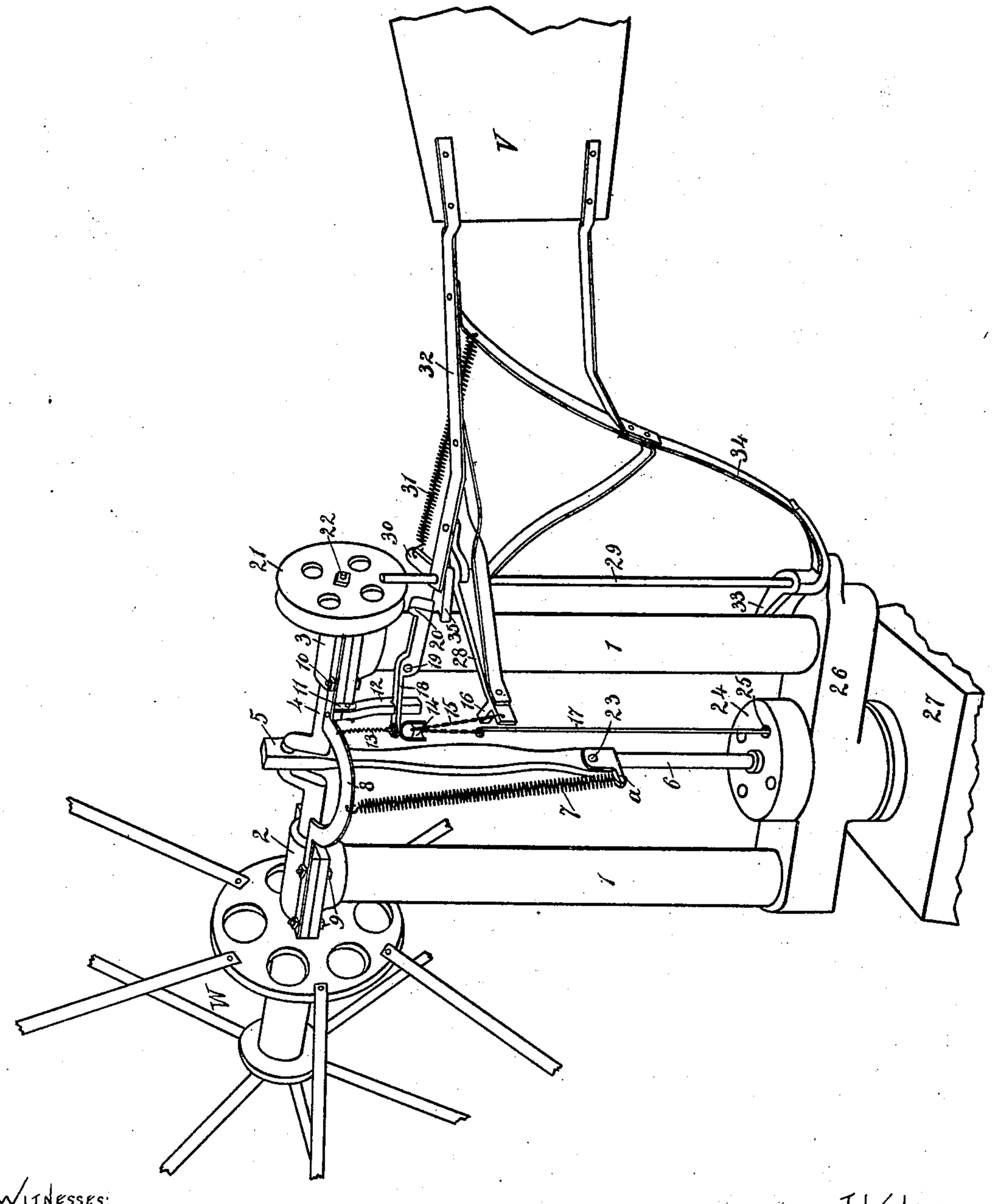
No. 665,838. Patented Jan. 8, 1901.

C. P. PRITCHARD.

WINDMILL.

(Application filed June 13, 1900.)

(No Model.)



WITNESSES:

C. F. Patterson.

Ethel Smith.

INVENTOR.

Charles P. Pritchard.

PER

Geo. W. Suss.

ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES P. PRITCHARD, OF LAUREL, NEBRASKA.

WINDMILL.

SPECIFICATION forming part of Letters Patent No. 665,838, dated January 8, 1901.

Application filed June 13, 1900. Serial No. 20,152. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. PRITCHARD, residing at Laurel, in the county of Cedar and State of Nebraska, have invented certain useful Improvements in Windmills; and I do hereby declare that the following is 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, reference being had to the accompanying drawing, which forms a part of this specification.

This invention relates to a new and novel improvement in windmills.

The object of my invention is to provide a windmill having a pitman counterbalanced by means of a spring, in combination with a simple brake mechanism to check the speed of the working parts, as will be described more fully hereinafter.

In the accompanying drawing I have shown in the figure a perspective view of a windmill embodying my invention.

My invention embodies, essentially, a head or turn-table 27, which is adapted to be secured to a suitable standard and is provided with an opening through which may pass a suitable pump-rod 6. Working upon this turn-table 27 is a head 26, this head being provided with a collar which extends through the turn-table 27, so that the head 26 is securely but revolubly united to the turn-table. Extending upward from this head 26 are two supports 1 1, which above are provided with the bearings 2 and 3, which support a crank-shaft 4, which crank-shaft is provided at one end with the grooved sheave 21, secured by means of the nut 22 to the shaft, the depending pitman 5, and the wind-wheel W, which latter is shown in broken section.

Secured to the upper bearings 2 and 3 is a bracket 8, from which depends a spring 7, which is secured to the head *a*, attached to the upper end of the pump-rod 6, and this head *a* is provided with a pin 23 to receive the lower end of the pitman 5. This spring is so arranged that the wind-wheel W when it does no work—that is, when the pump-rod descends—works against the pressure of this spring 7, which consequently aids in lifting the rod.

Positioned adjacent the grooved sheave 21 is a bar 29, secured by means of the upper bracket 35, and upon this bar 29 works a frame 34, holding the vane V.

Extending from the bracket 35 is an arm 30, to which is secured a spring 31, secured also to the bracket 34, so that the vane, which is permitted a swinging motion in one direction against the spring, will normally be brought back into alinement with the shaft 4 by means of this spring 31. The stop 33, secured to the lower end of the bracket 34, prevents the vane from turning beyond alinement with the shaft upon that side.

Depending from the bracket 8 is a notched swinging dog 12, within the notch of which rests the stem 18 of a brake-shoe 20, supported by means of a pin 19. This brake-shoe is normally drawn away from the sheave 21 by means of the spring 13, secured to the stem 18. To this stem 18 is also secured a pulley 14, over which works a chain 15, secured to an operating-rod 17 and to the arm 28, forming part of the bracket 34. This arm is provided with a nosing 16, as shown. Normally the vane V will be in alinement with the driving-shaft 4, so that the pump will properly operate, the working or lifting power of the shaft being increased by means of the spring 7, as has been set forth. Now should it be desired to throw the mill out of the wind the operator would draw down the bar 17, which would swing around the bar 28, against the tension of the spring 31, to carry the vane out of alinement until the nosing 16 engaged the depending dog 12 to release the brake-shoe 20, which would then work into the groove of the sheave 21 and so check the movement of the shaft. The operating-bar would then be secured to prevent and hold out of work this shaft.

The working effects are all simple and readily accessible.

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

In a windmill of the character described, a revolving head, a crank-shaft working within said head, a pitman depending from said crank-shaft, a spring secured to said head and to said pitman, a brake-wheel secured to

said crank-shaft, a pivoted brake-shoe normally locked by means of a dog, a swinging vane provided with a projecting nosing, a spring to normally hold said vane in alinement, and an operating-bar to actuate said vane against the tension of said spring to force said nosing into contact with said dog to release said brake-shoe, as and for the purpose set forth.

CHARLES P. PRITCHARD.

In presence of—
JOHN WELBURN,
O. A. JOHNSON.