C. W. Palmer,

Wind Wheel.

No. 88407. Patented Mar. 30. 1869.

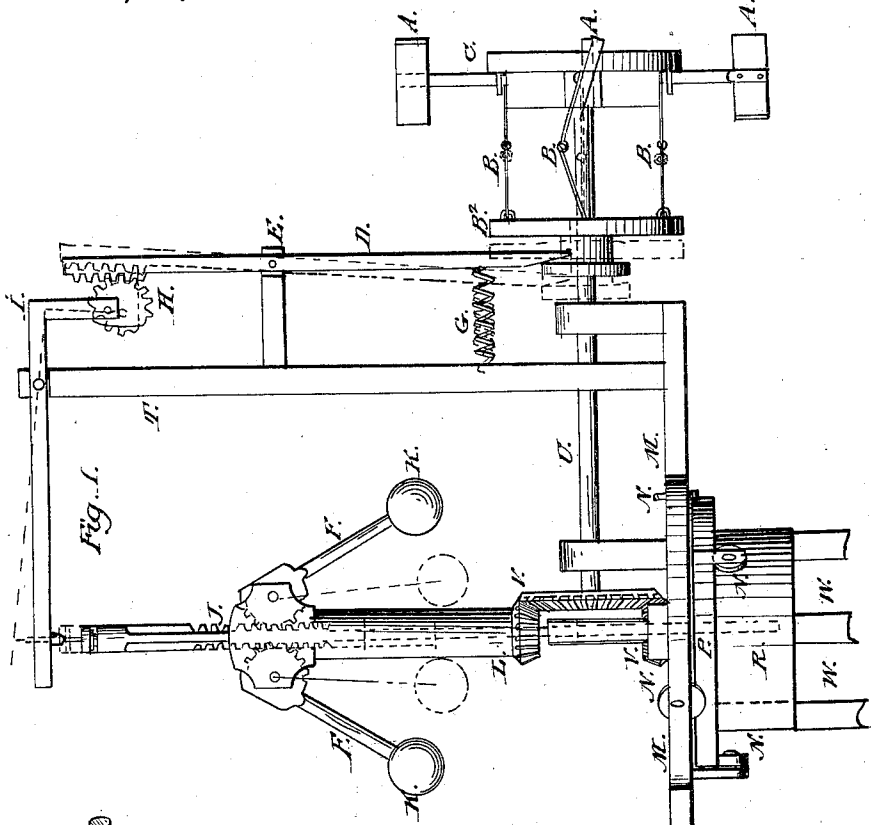

Fig. 1.

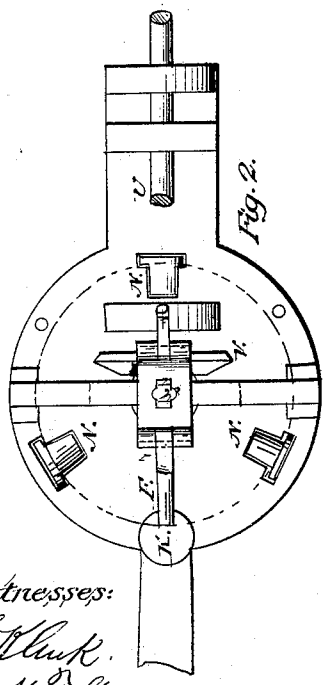

Fig. 2.

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CYRUS W. PALMER, OF RIGA, NEW YORK.

Letters Patent No. 88,407, *dated March* 30, 1869.

IMPROVEMENT IN WIND-WHEELS.

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, CYRUS W. PALMER, of Riga, Monroe county, State of New York, have invented a new and improved Wind-Wheel; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

Figure 1 represents a side elevation of the machine.

Figure 2, a top view of the revolving platform.

The nature of my invention consists in the mode and manner of regulating the movement and adjustment of the wind-wheel by means of the rods and rear wheel, movable upright, self-acting regulator, double rack, balls, and movable platform, as arranged.

A represents the wind-wheel, that is self-adjusting, according to the force of the wind, and when regulated by the connecting-devices, the jointed rods B, connected with the rear wheel B^2, move the arms C of the wind-wheel, and adjust the paddles A at such an angle as to break the force of the wind, and keep the paddles in their proper position, when the wind is not blowing hard, but when the wind is strong, the paddles A are self-adjusted, endways, or sideways, so as not to be acted on too powerfully by the wind.

The upright, D, works on a pivot or fulcrum, E, the upper and lower ends working out and in alternately, corresponding with the movement of the regulator, or balance-wheel F, the spiral spring G at the lower end, and the ratchet and cam H, at the upper end, controlling the movement of the upright, D.

Attached to the cam H is an angular movable lever, I, pivoted upon the upright, T, which is operated by the raising and lowering of the double rack J, that rises or falls according to the velocity of the balls K K, on the regulator F.

The wheel A revolves upon a horizontal shaft, U, that has double-bevel gearing V, at its opposite end, and the upright shaft, or spindle L, operates with and upon this double-bevel gearing V, and extends down below to a pump, or any other machinery required to be operated.

These aforesaid devices are supported by and revolve with a revolving platform, M, with rollers N, that travel against a flange, P, of the cylinder R, that rests upon four or more posts W beneath.

S is a vane, in the rear, to keep the wheel always facing the direction of the wind, and made of any shape.

Excepting the vane and paddles, the rest of the devices are intended to be made of iron.

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

The rods B, and rear wheel B^2, movable upright D, self-acting regulator F, spring G, ratchet and cam H, movable lever I, double rack J, balls K K, and revolving platform M, when arranged and operating as herein described, and for the purposes set forth.

CYRUS W. PALMER.

Witnesses:

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