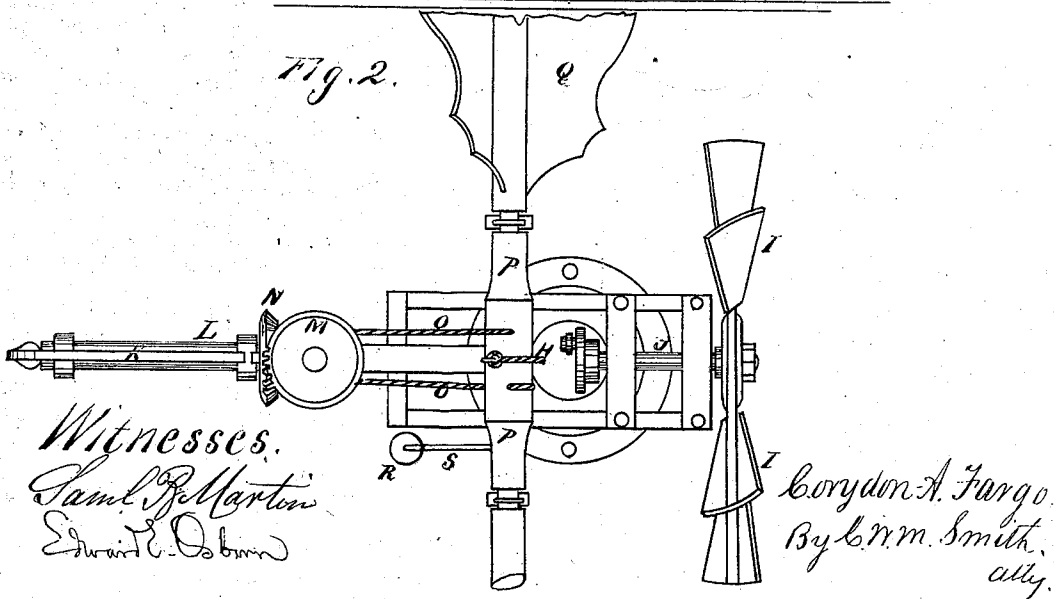
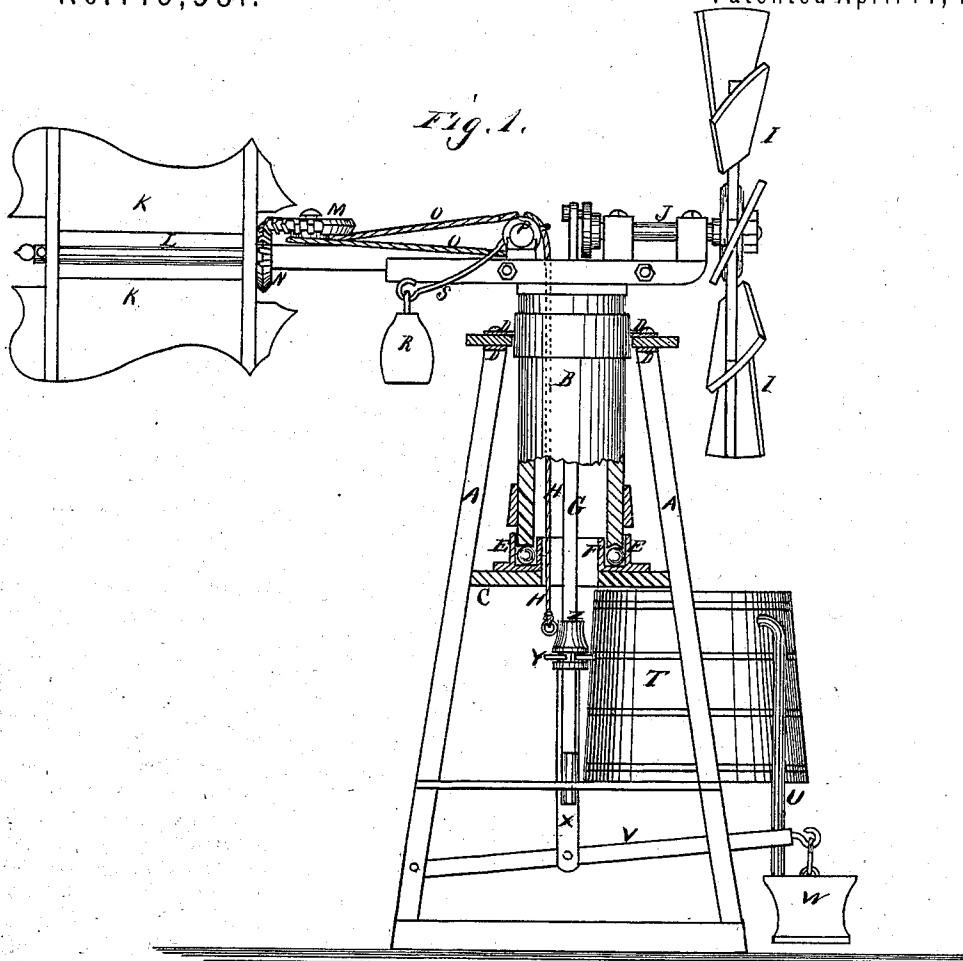


C. A. FARGO.
Wind-Mills.

No. 149,581.

Patented April 14, 1874.



UNITED STATES PATENT OFFICE.

CORYDON A. FARGO, OF MODESTO, CALIFORNIA.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **149,581**, dated April 14, 1874; application filed June 19, 1873.

To all whom it may concern:

Be it known that I, CORYDON A. FARGO, of Modesto, county of Stanislaus, State of California, have invented an Improvement in Windmills; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters marked thereon.

My invention relates to certain improvements in windmills having two adjusting and guiding tails; and it consists mainly in the construction and arrangement of an automatically-operating apparatus by which the two tails are so turned that the wheel will be thrown out of the wind whenever the tank is filled or the periodical work to be done is finished. My invention further consists in the employment of a peculiarly-arranged step, upon which the body of the mill turns, so that most of the friction will be avoided.

Referring to the drawings, Figure 1 is a side elevation of my mill, showing a section of a part. Fig. 2 is a plan or top view.

A is the frame of my windmill, constructed in the ordinary manner; and through the upper platform the hollow shaft or barrel B passes, and rests in the step upon the platform C. The upper platform consists of two rings of iron, D, within which the barrel turns with little friction. The step consists of two flanges, E and F, standing upon a base-plate; and between the two flanges are placed any number of balls, upon which the foot of the hollow shaft B turns. The inner flange surrounds an opening, which is a continuation of the opening in the shaft or barrel B, and through this opening the pump-shaft G and the cord H pass from the upper part of the mill. The wheel I is mounted upon the short shaft J, and operates the pump-rod by means of a crank or eccentric wheel. The guiding-tail K, which holds the wheel in the wind, is made in two parts, so as to rotate about the shaft L, which is rounded at this point for the purpose. Just in front of the tail a bevel-gear is mounted upon a short vertical axis, and this engages with another bevel-wheel, N, which is secured to the tail K concentrically with its axis. The shaft of the bevel-gear M serves as a barrel, around which the cord O passes once or twice, and then extends to the transverse shaft P, and is fastened to it on opposite sides, so that when the shaft P is rotated it will operate, through the cord O,

to turn the bevel-wheels M and N, and thus turn the tail K so that it will stand vertically. A secondary tail, Q, is secured to the end of the shaft P, so that when the tail K stands vertically and holds the wheel in the wind, the tail Q will lie horizontally, and will now be operated upon by the wind. A weight, R, is attached to the arm S, and this tends to hold the tail Q in a horizontal plane. The tank T is so placed as to be filled with water by the pump, and it is provided with an overflow-pipe, U. A lever, V, is pinned to one side of the mill-frame, and its opposite end carries a hook, upon which a bucket, W, is suspended. From the middle of the lever V an arm, X, extends upward, and terminates in a clutch, Y, which clasps a grooved sleeve, Z, upon the pump-shaft. To a hook upon this sleeve the cord H is secured, and, when the lever V is pulled down, the cord H will turn the shaft P and its tail Q. The bucket W is suspended from the end of the lever V, so as to hang just below the discharge-spout, and when the tank is filled the overflow will fill the bucket. This gives just weight enough to pull down upon the lever V, and in turn operate the cord H, which turns the shaft P, and this operates the cord O, as before described, so that the tail Q will be placed vertically to receive the action of the wind, while the tail K will be made to lie horizontally. The wind then blows the mill around sideways, and forces the wheel out of the wind.

A hole in the bucket may be arranged so as to gradually let the water run out, when the weight R will again draw the shaft P around, thus throwing the two tails into their first position, and bringing the wheel again into the wind.

The device is simple and very effective, and will keep the tank always full without overflowing.

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

The combination of the fans K Q with the intermediate connecting mechanism, the weight R, and the varying weight W, with its connections, as described.

In witness whereof I have hereunto set my hand and seal.

CORYDON A. FARGO. [L. s.]

Witnesses:

C. W. M. SMITH,
SAML. B. MARTIN.