L. Reese,

Wind Wheel,

No. 54,407. Patented May 1, 1866

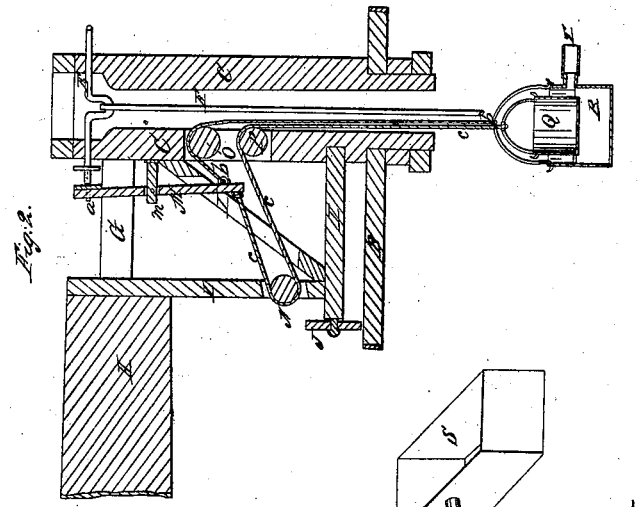

Fig. 2.

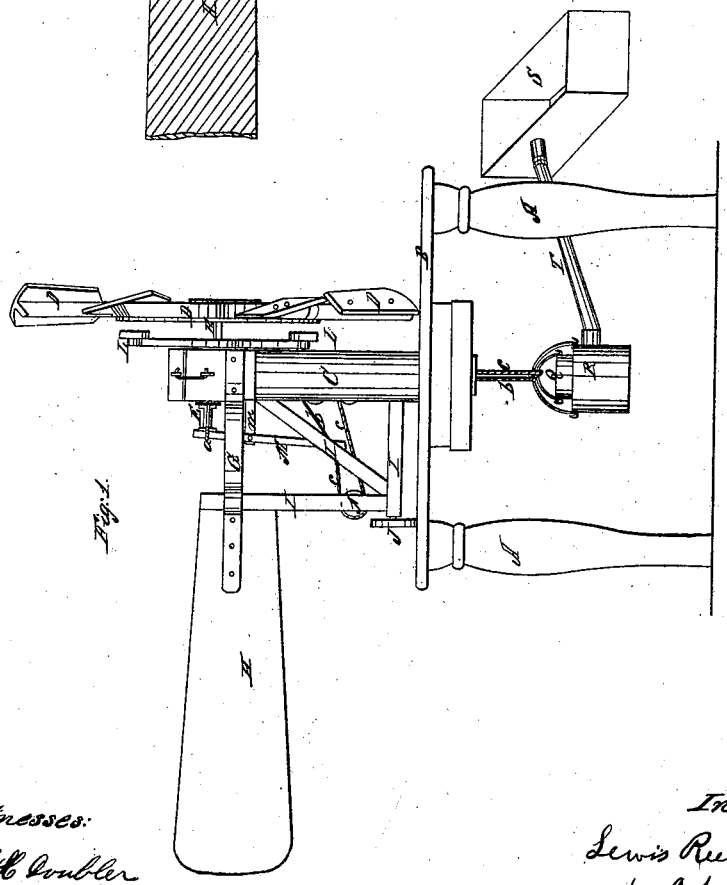

Fig. 1.

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UNITED STATES PATENT OFFICE.

LEWIS REESE, OF ROLLING PRAIRIE, INDIANA.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **54,407**, dated May 1, 1866.

To all whom it may concern:

Be it known that I, LEWIS REESE, of Rolling Prairie, in the county of La Porte and State of Indiana, have invented a new and useful 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 the letters and figures marked thereon, which form part of this specification.

My said invention relates to the application of a wind-wheel to the purpose of pumping or raising water from wells; and it consists in a novel arrangement whereby the wheel will revolve through the force of the wind until the vessel into which the water is discharged is full, when a brake is applied automatically to check and stop the revolution of the wheel and the operation of the pump or water-elevator, all as hereinafter more fully described.

To enable those skilled in the art to understand how to construct and use my invention, I will proceed to describe the same with particularity, making reference in so doing to the aforesaid drawings, in which—

Figure 1 represents a side elevation of my invention, and Fig. 2 represents a vertical central section of the same.

Similar letters of reference in the different figures denote the same parts of my invention.

A represents suitable posts or standards, which support the platform B, upon which is erected the various parts of the apparatus, as hereinafter described.

C represents a tubular inclosure arranged upon the platform B, as shown, in the upper end of which the shaft E of the wind-wheel D has its bearings. Said shaft E revolves with the wheel D, and being provided with a crank, as shown, to which the rod F is attached, which is to be attached to the piston of the pump in any suitable manner; its revolution gives a reciprocating movement to the rod F, and thus operates the pump.

G represents an arm attached to said inclosure C, to which the vane H is attached, as shown, so as to turn the wheel D always in the proper direction to catch the wind, said tubular inclosure C turning freely upon the platform B, and the frame I, supporting the vane, moving freely around upon the roller J.

L L represent certain blocks or brakes, upon which the wind forces the wheel D, as hereinafter described, at certain times, the shaft E having a sliding movement in its bearings, for the purpose of braking or stopping the revolution of the wheel.

M represents a lever having its fulcrum at *m*, one end of said lever resting against the end of the shaft E, as shown, being secured there by means of a strap, *a*, passing around the same, and the other end projecting downward, to which are attached the cords or chains *b c*, respectively, as shown.

The cord *c*, passing around the pulley N and over the pulley P, goes down to be attached to a weighted vessel, Q, which is suspended within the larger vessel R, which is suspended from the cord *b*, as shown. Thus it will be observed that the action of the weighted vessel Q suspended upon the cord *c* is to force and keep the wheel D away from the brakes L, and thus secure its continuous revolution; but when the revolution of the wheel D has pumped up, as aforesaid, enough water to fill the trough, tank, or reservoir S, the water begins to flow through the pipe T into the vessel R, and when enough water has flowed into said vessel R to float the weighted vessel Q, then the weight is transferred from the cord *c* to the cord *b*, whose action is to withdraw the pressure from the shaft E and allow the wind to press the wheel D against the brakes L, and thus stop the revolution of the wheel.

By removing the water in the vessel R, so as to bring the weighted vessel Q to bear upon the cord *c*, the wheel D is removed from the brakes L, and the wheel thus set in motion, to be stopped, as before, when the tank or trough is again filled.

By this arrangement it is readily seen that the machine or mill is in operation only when desired, and its operation is automatically checked at the proper time, so that the great wear which would otherwise occur is obviated, and the apparatus lasts much longer without requiring repairs than would otherwise be the case.

Having described the construction and operation of my invention, I will now specify what I claim and desire to secure by Letters Patent:

The combination and arrangement of the lever M, cords *b c*, weighted vessel Q, and vessel R, operating substantially as and for the purpose specified.

LEWIS REESE.

Witnesses:
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