P. Loeffler,

Wind Wheel.

No. 53,458. Patented Mar. 27, 1866.

Fig. 1.

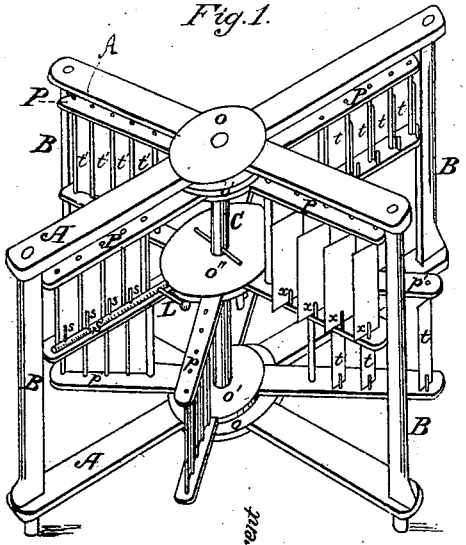
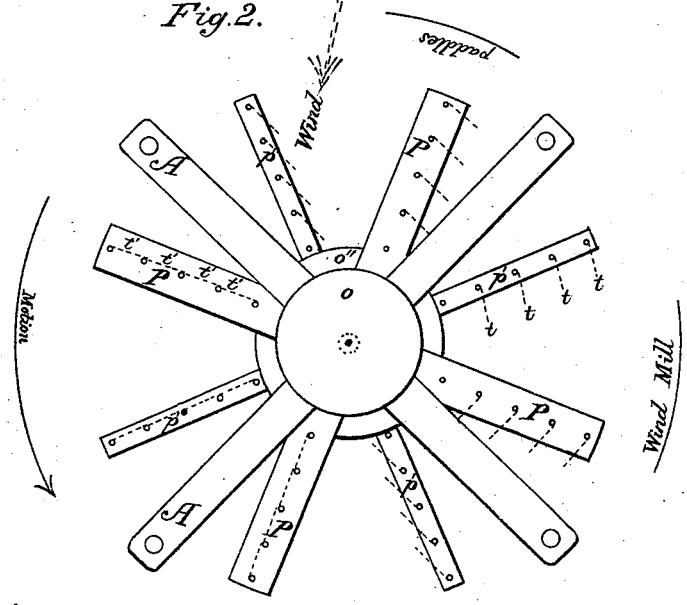


Fig. 2.



Attest:
Theodore Lang
Jno. Johnson

of the

Inventor:
Philipp Loeffler

UNITED STATES PATENT OFFICE.

PHILIPP LOEFFLER, OF MILWAUKEE, WISCONSIN.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **53,458**, dated March 27, 1866.

To all whom it may concern:

Be it known that I, PHILIPP LOEFFLER, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new Improvement in Construction of Windmills or Wind-Power Apparatus; 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, making a part of this specification, in which—

Figure 1 is a perspective view of the wind-power apparatus, consisting of a frame, A A, and B B stay-rods of said frame, also eight paddles, as hereinafter explained. Fig. 2 is the plan or top view of the said wind-power.

Similar letters of reference indicate corresponding parts in both figures.

This invention relates to a new and useful mode of constructing and attaching windmill-paddles to a frame in a horizontal position, also the construction of each paddle and movable plates, as hereinafter set forth.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my wind-power apparatus of a frame, A A, Figs. 1 and 2, tied together with stay-rods or braces, B B, with a center shaft, C, revolving as usually. On said shaft there are eight radial paddles or arms, (or any number may be used.) Attached to secure said paddles to the shaft are circular plates *o' o''*, fastened as shown on Figs. 1 and 2. Those circular plates and the paddles are revolving with said shaft, connecting said shaft with any required machinery in any ordinary manner.

The paddles are constructed of two horizontal beams, P *p'*, extended to any required length. Between said beams four movable plates, *t t t t*, (see Figs. 1 and 2,) are secured, so that when the paddle is moving against the wind the said plates are open, as shown in Figs. 1 and 2, *t t t t*, and when the paddle is operating in the current of wind the said plates shut themselves, (see letters *t' t' t' t'* in both figures,) by this means regulating itself and making as little back friction as possible, thus gaining power by its simple, durable, and easy mode of construction. In regard to keeping the said plates *t t t t* within a given position to open them, there are stop-pins *x x x x* behind each plate, secured to the paddle-beams; and if required to stop the motion of the windmill, partly or total, there is another guide-rod, S, with stop-pins *s s s s*, in Fig. 1, with lever L attached, so that when the said lever is raised the stop-pins enter between the movable plates and keep them in an open position, so that the wind will have no effect upon the same and the mill will stand still.

Those paddle, as before said, are attached to the said center shaft in two or more rows, one above the other, and in the accompanying drawings there are eight paddles in two rows. The paddles *p' p' p' p'* (four in number) are attached in the lower row, and the paddles P P P P are attached in the upper row, in the manner shown on Fig. 2, each paddle crossing the other, so that the wind may blow in any direction the paddles must receive the full current of wind. The said paddles may be attached to a new or old windmill very easily, and are so plain and simple in their construction that they cannot easily get out of order and can be much cheaper manufactured, thus of great value to the country generally.

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

The guide-rod S, having the stop-pins *s s* and operated by the lever-arm L, constructed and operated as described, and arranged in relation to the arms and paddles, substantially as set forth.

PHILIPP LOEFFLER.

Witnesses:

JOHN H. TESCH,

J. S. CLARK.