

# CHAMPLIN, MEEKS & CHAMPLIN. Wind-Mills.

No. 132,438.

Patented Oct. 22, 1872.

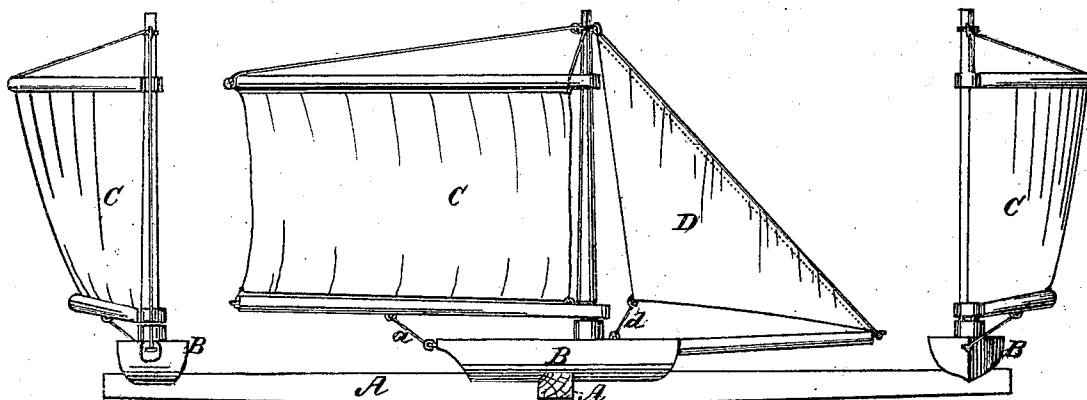


Fig. 1.

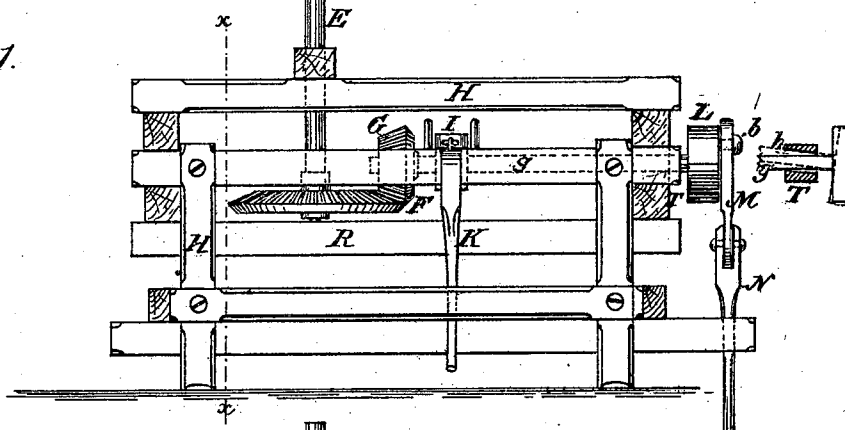
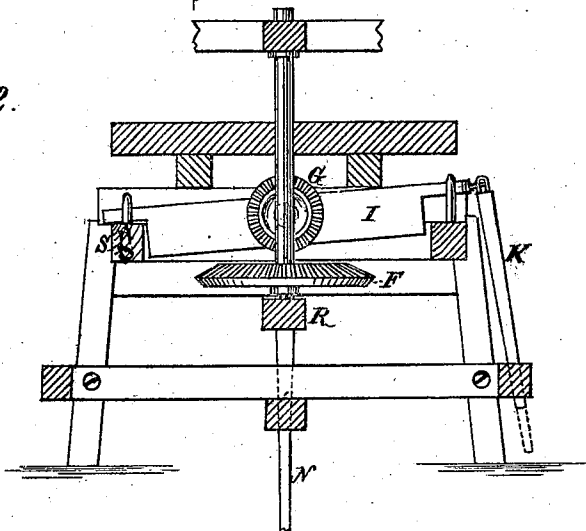


Fig. 2.



Witnesses:  
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# UNITED STATES PATENT OFFICE.

ALSOM P. CHAMPLIN, JOEL MEEKS, AND HENRY C. CHAMPLIN,  
OF AVOCA, ILLINOIS.

## IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. 132,438, dated October 22, 1872.

### *To all whom it may concern:*

Be it known that we, ALSOM P. CHAMPLIN, JOEL MEEKS, and HENRY C. CHAMPLIN, all of Avoca, county of Livingston and State of Illinois, have invented a new and useful Improvement in Windmills, of which the following is a specification:

This invention relates to that class of apparatus for obtaining motive power known as windmills; and it consists in the construction and combination of a series of sails attached to supporting cross-arms, and a portable platform that can be placed on the top of any ordinary building, machine shop, or in any suitable location where an unobstructed current of wind can be obtained, and in the mode of gearing the aforesaid parts with an adjustable driving shaft and eccentric thereon, whereby motion is communicated to pumps, churns, lathes, sawing, planing, and other machinery.

In the drawing referred to in this specification, Figure 1 is a perspective view of our improved windmill, and Fig. 2 is a section on the line *x x* of Fig. 1.

Like letters refer to like parts in the several figures.

A A are cross-arms fitted at their extremities with the boat-shaped pieces B B. The boats B have suitable masts, and are provided with mainsail C and jib D. The sails C and D are secured by the cords *a* and *d* so as to have a limited play to either side of a fixed point. E is the supporting-shaft for the cross-arms A, and has its step or bearing in cross-bar R of frame H. H is a frame with its up-rights and connecting cross-bars made of any suitable material, provided it is sufficiently strong to bear the superimposed weight and sufficiently broad to brace firmly. Shaft E is provided at its lower extremity with a beveled wheel, F, which gears with the beveled wheel G on driving-shaft *g*. Shaft *g* passes through

or over tilting-bar I of frame H so as to be controlled thereby. Cross or tilting bar I of frame H rests at one end upon, or is hinged to, cross-bar S of frame H, and at its opposite end is attached to lever K. As lever K is raised or lowered so will beveled wheel G be brought in gear with wheel F or disconnected therefrom. Cross-bar T of frame H is slotted on an incline to allow of the passage of shaft *g*; this is necessary to permit of free movement of shaft *g* when tilting-bar I is raised or lowered. Upon the end of shaft *g* is secured an eccentric, L, to which arm M is connected by pin *b*, M being connected in turn with shaft N for driving a pump, churn, or other machinery. The shaft *g* and tilting-bar I, together with the incline slotted cross-bar T, gives a ready and sufficient adjustable gearing, and one not liable to injury. The entire apparatus constitutes a very simple and efficient power for the purposes named.

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

The mainsails C, jibs D, each provided with ropes *a d* for the purpose described, and pivoted upon the masts of the boat-shaped blocks arranged upon the cross-arms A A, in combination with the shaft E, bevel-wheel F, shaft *g*, bevel-wheel G, tilting-bar I, slotted cross-bar T, all arranged and operating substantially as set forth.

In testimony that we claim the foregoing we have hereunto signed our names this 26th day of March, A. D. 1872.

ALSOM P. CHAMPLIN.  
JOEL MEEKS.  
HENRY C. CHAMPLIN.

### Witnesses:

N. I. McDOWELL,  
G. M. THOMAS.