M. S. HODGES.
WINDMILLS.

No. 193,954. Patented Aug. 7, 1877.

Fig. 1.

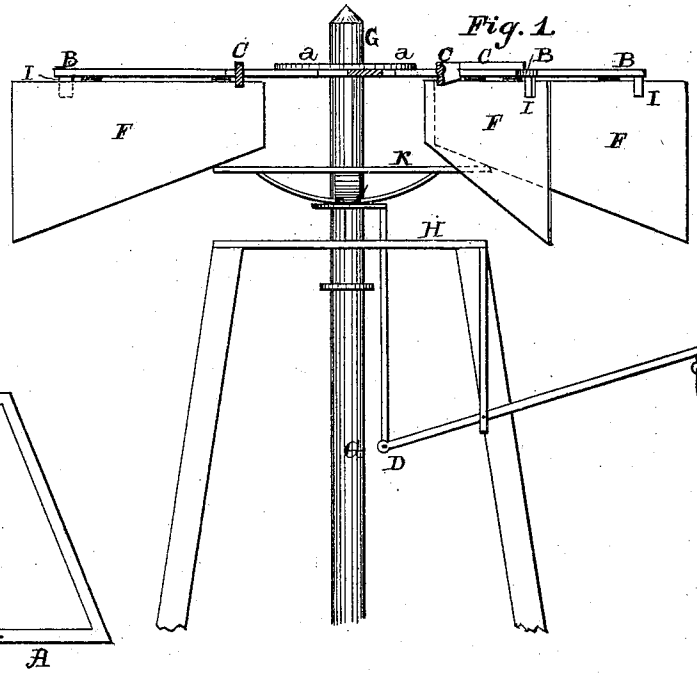


Fig. 2

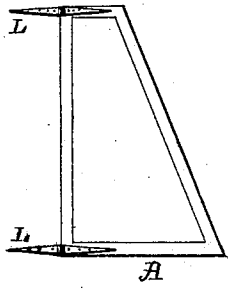
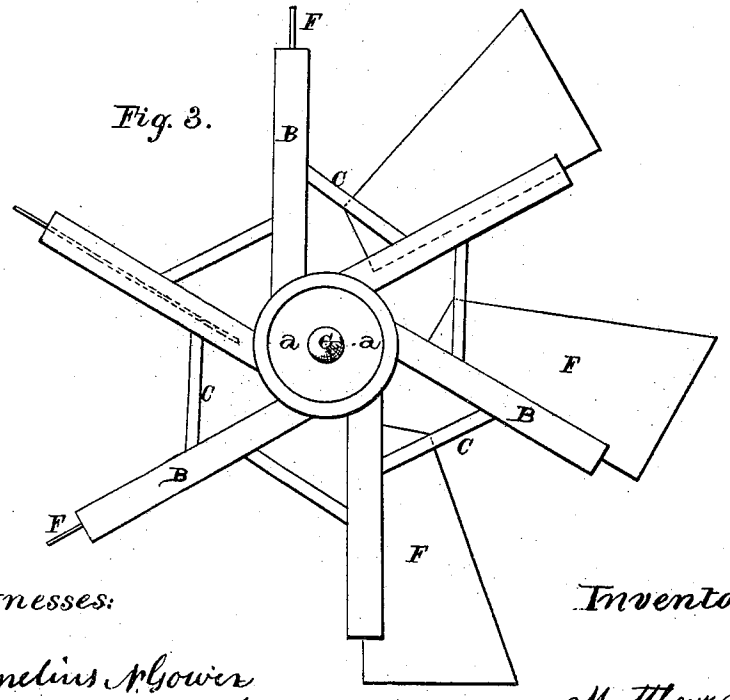


Fig. 3.



Witnesses:

Cornelius Glower
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MATTHEW S. HODGES, OF LA FAYETTE, WISCONSIN.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **193,954**, dated August 7, 1877; application filed October 14, 1876.

To all whom it may concern:

Be it known that I, MATTHEW S. HODGES, of La Fayette, Chippewa county, Wisconsin, have invented certain Improvements in Windmills, of which the following is a specification:

My invention relates to an improvement in windmills; and it consists in the arrangement and combination of devices that will be more fully described hereinafter, whereby a cheap, simple, and effective mill will be produced.

Figure 1 is a side elevation of my invention. Fig. 2 is a detail view of the same. Fig. 3 is a plan view of the mill.

H represents the derrick or frame, of any suitable construction, in which is journaled the vertical shaft G. Near the top of this shaft is secured a disk, *a*, from which project the arms B, which arms are braced in position by means of the braces C. Hinged to the under side of the arms B are the fans F, which are widest at their outer end, and are formed of canvas, having an iron frame, A, around them, or of any other suitable material. Sliding vertically upon the shaft G is a disk, K, which is raised by means of the jointed lever D E, so as to bear against the under side of the fans F, and close them upward, so that only their edges will be presented to the wind.

The fans are so hinged to the arms that when moving against the wind they turn up on their edges, as shown in Fig. 3, and as soon as they begin with the wind they drop vertically down again against the shoulder I, as seen in Fig. 1.

Having thus described my invention, I claim—

The combination of the shaft G, disk *a*, arms B, disk K, and levers D E, substantially as shown.

MATTHEW S. HODGES. [L. S.]

Witnesses:

CORNELIUS N. GOWER,

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