2 Sheets--Sheet 1.

J. C. ORMISTON & E. S. SEGER.

Wind-Mill.

No. 168,917. Patented Oct. 19, 1875.

Fig. 2.

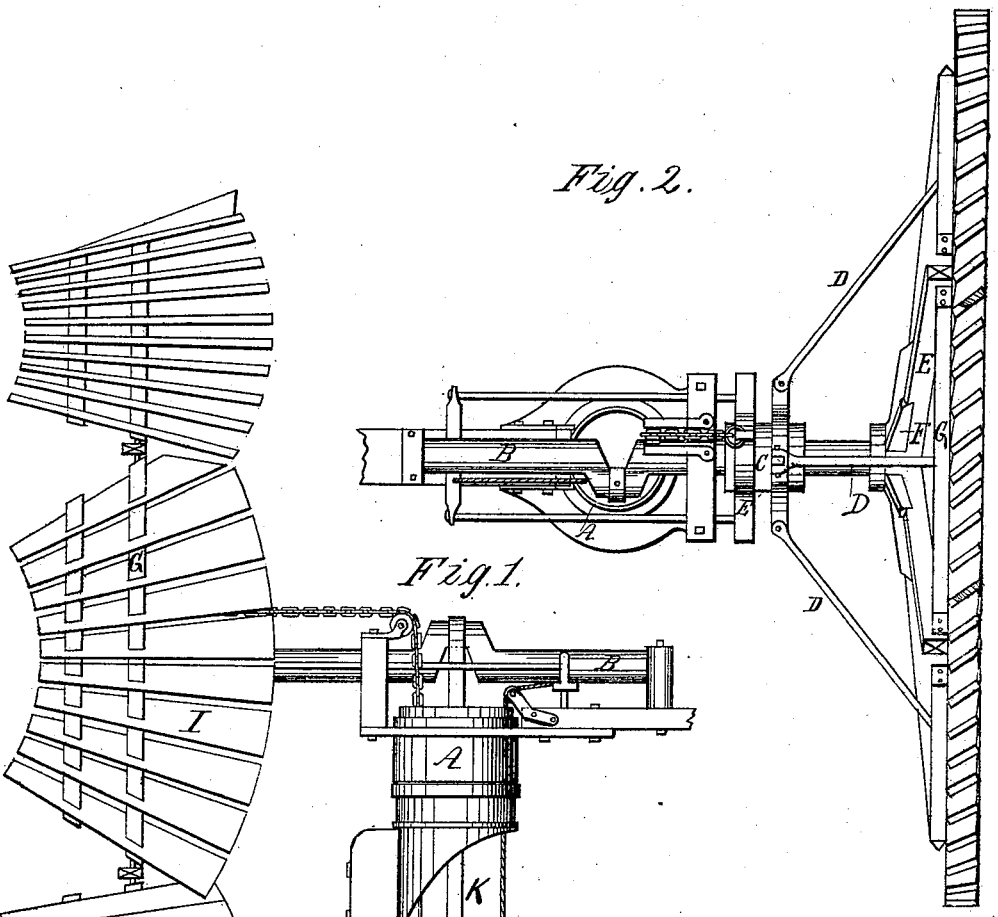
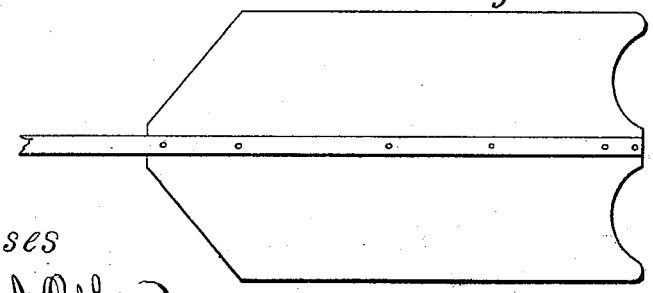


Fig. 1.

Fig. 3.



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2 Sheets--Sheet 2.

J. C. ORMISTON & E. S. SEGER.

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Fig 4.

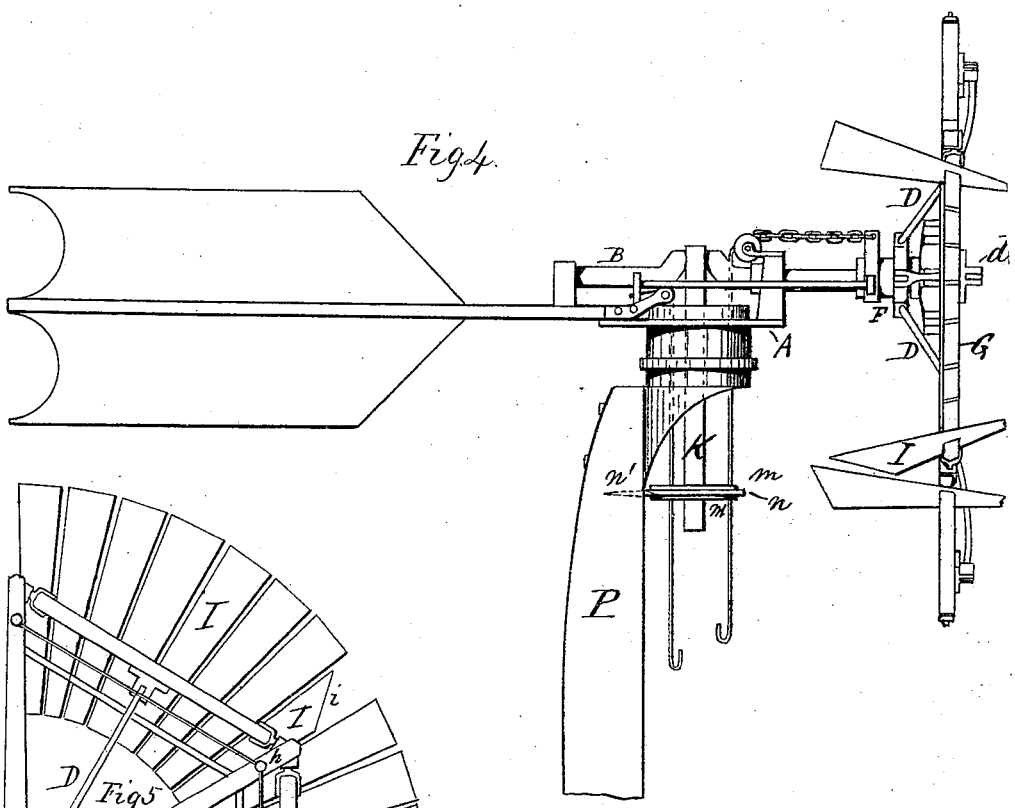


Fig 5

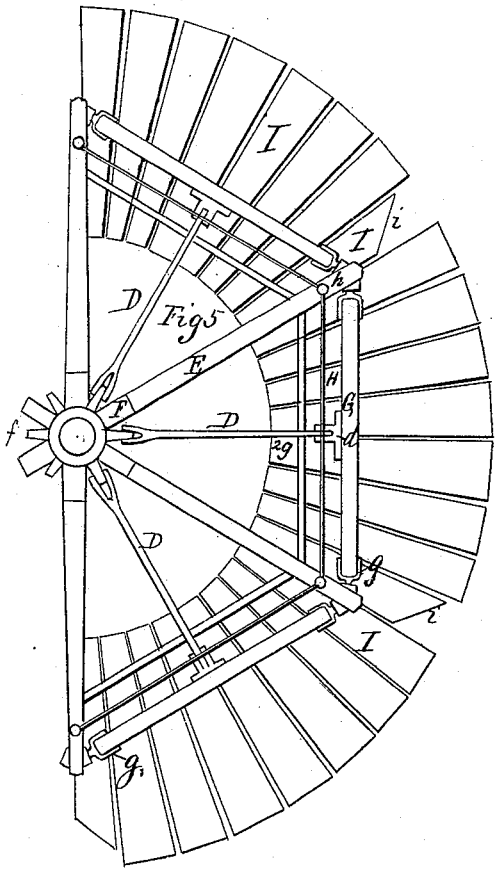


Fig 6

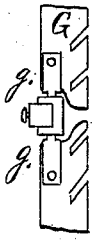


Fig 7

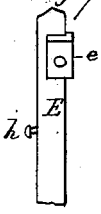
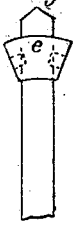


Fig 8



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UNITED STATES PATENT OFFICE.

JOHN C. ORMISTON, OF GENESEO, AND EDMUND S. SEGER, OF ERIE, ILL.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **168,917**, dated October 19, 1875; application filed February 19, 1874.

To all whom it may concern:

Be it known that we, JOHN C. ORMISTON, of Geneseo, in the county of Henry and State of Illinois, and EDMUND S. SEGER, of Erie, in the county of Whitesides and State of Illinois, have invented certain Improvements in Windmills, of which the following is a specification:

The nature of our invention consists in certain new and novel construction, to be hereinafter more fully described; also, in combining in the construction of the parts of the mill a large amount of wood-work; in equally spacing the sails of the windmill; and in providing a double pivot-box, which holds out the cross-head by means of a pivot, and upon which the sails are set, all of which will be more fully understood by referring to the letters of reference upon the accompanying sheets of drawing, in which—

Figure 1 is a side elevation of our windmill. Fig. 2 is a plan of the top of the windmill. Fig. 3 is the arrow of the balancing mechanism. Fig. 4 is a side view of the mill, having some of the sails removed to show the opening and closing mechanism. Fig. 5 is a part rear view of the sails upon the wheel. Fig. 6 is an end view of pivot-box; Fig. 7, side view of Fig. 6; Fig. 8, front view of Fig. 6.

In all the same letters refer to the same parts.

The iron crank-axle B rests upon bearings upon the turning or revolving top, and is held in position by the tubular bearing A. This upper part carries the crank-axle and the sails, with the arrow end to keep the wheel of of the mill in the wind. Upon the front of the crank-shaft B and attached thereto is the spider-boss F, having the projections *f*. These are sunk into and attached to the wooden spokes E, which radiate therefrom. These spokes E are held out in their position by a simple brace or tie, H, and bolt *h*. Near to the outer end of these said spokes E, upon their outside or outward side, there is let in or sunk in the double pivot-box *e*, and working in this said box *e* are the pivots *g*, attached to the joist cross-heads G, which carry the sails I. The cross-heads G are merely oblong pieces of wood, having cuts made in the front face to receive the sails, and each cut represents and gives to the sail the angle it is intended for it to present to the wind, and by merely making the overlapping piece *g* formed upon the joist cross-heads G the sails are enabled, when thrown to the wind, to be equally spaced; also, this construction permits the cross-heads being light and inexpensive. To revolve the cross-head so as to take the sails in from the wind, or to give them to the wind, there is bolted at or near the middle of these joist cross-heads a lug, *d*, and this lug is connected by a rod with the opening and closing lug D upon the crank-axle. There is also provided, underneath the tubular bearing A, a steadying-ring with a means of holding the connecting-rod, and this guide is attached by means of a bolted point to the supporting-post P of the windmill. This guide is made by placing two plates together and riveting them in that position, each having a shoulder which is made to fit the ring, and any direction taken by the wheel of the mill, due to the action of the wind, the guide, as before mentioned, will revolve with the connecting-rod.

Having thus described the construction and operation of our invention, what we desire to secure by Letters Patent of the United States is as follows:

In a balanced revolving windmill, the combination of the crank-axle B with the boss F, having arms *f*, the spokes E, having let therein the double pivot-box *e*, and held by braces H and bolts, with the joist cross-head G, having the sails I revolved and operated by the lug *d*, connection *d'*, and lug on crank B, all operating substantially as herein set forth.

JOHN C. ORMISTON.
EDMUND S. SEGER.

Witnesses:
ANDREW J. OSBORNE,
LEVI WRIGHT.