M. GORE.

Wind-Mill.

No. 162,228. Patented April 20, 1875.

Fig. 2.

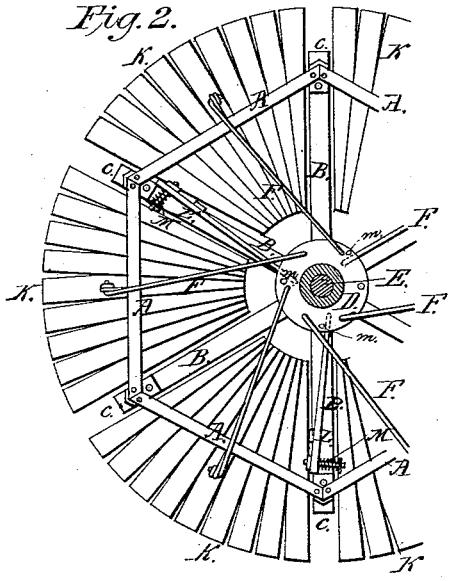

Fig. 1.

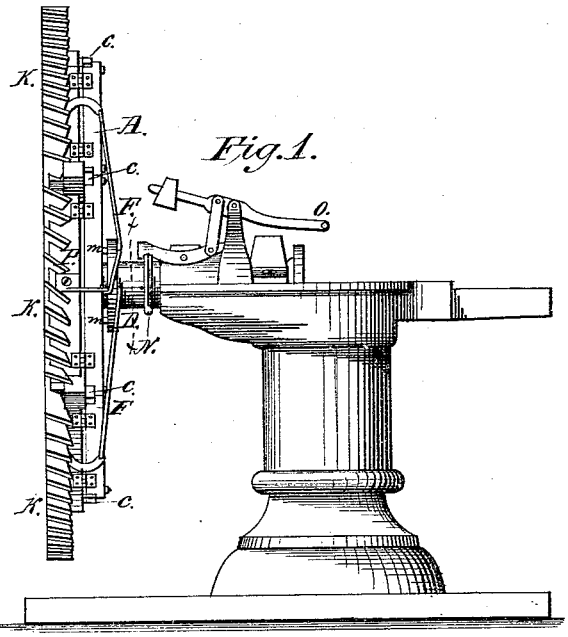

Fig. 3.

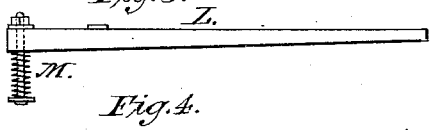

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

Witnesses:

Edward Rose.

P. W. Stockleger

Inventor:

Myron Gore

UNITED STATES PATENT OFFICE.

MYRON GORE, OF OTTAWA, ILLINOIS, ASSIGNOR TO WILLIAM STORMONT, OF SAME PLACE.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **162,228**, dated April 20, 1875; application filed February 8, 1875.

To all whom it may concern:

Be it known that I, MYRON GORE, of Ottawa, in the county of La Salle and State of Illinois, have invented certain Improvements in Windmills, of which the following is a specification;

The first part of my invention relates to a novel construction of the frame of the wheel of a windmill, of the class known as "self-regulating section rose-wheels," and consists in a cheap and superior manner of constructing the said frame, so that the jarring and vibrating of the mill, while at work, will not be likely to shake the frame apart.

The second part of my invention consists in the combination, with the sections of a wind-wheel of the above-named description, of levers and springs, in such a manner that the section of a wheel, when depressed by a strong wind, shall be speedily and surely brought back again when the wind slackens; the object of this part of my invention being to cheapen the construction of the mechanism accomplishing this result, and also to make the wheel more reliable in its action, and more perfectly self-regulating than it has been heretofore.

Figure 1 in the drawing, is a side elevation of a machine embodying my invention. Fig. 2 is a vertical transverse section, showing those parts of the machine which are at the left hand of the line *x x*, drawn across Fig. 1. Figs. 3, 4, 5, 6, and 7 are detached pieces.

The timbers A A A are well joined at the places where they meet, and bolted onto the radial arms B B B, by placing between and at each corner a casting, C, (Figs. 5, 6, and 7,) which forms a double socket, and has two bolt-holes, through which the timbers A A A and B B B are bolted together. This produces a very strong frame, offering resistance against strain not only from one side but from all sides, the casting or angle-piece C forming in this arrangement the most important part. It will be observed that by this method of constructing the frame the sections K K K can be hinged at a distance from their ends, instead of directly at their ends, as was the former practice, so that there is less danger of the force of the wind breaking a section-bar, P. D is a loose collar or disk on the shaft E, and has in it holes into which are hooked the rods F F F, and these rods are hinged at their outer ends to the section-bars P P P, in such a manner that, when from increased speed or pressure of wind the sections K K K are thrown out from their plane position, the collar D is made to slightly rotate on the shaft E. In doing so, the levers L L L (Figs. 3 and 4) are depressed by pins *m m m* on the outside of collar D. The depression of the levers L L L causes the springs M M M to be compressed in such a manner that, when the pressure of the wind or the speed of the wheel relaxes, the levers L L L, through the springs M M M, cause the collar D to turn back, forcing back the rods F F F, which in turn push back the sections K K K into their level position, flat against the face of the wheel. The collar D has also on it a raised part at N, on which a brake is applied through the lever O; but this part I do not claim as my invention.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The castings C C C, forming double-sockets, in combination with radial arms B B B, and the timbers A A A, substantially as and for the purposes described.

2. The levers L L L, and springs M M M, in combination with the loose collar D, the rods F F F, and the sections K K K, substantially as and for the purpose described.

MYRON GORE.

Witnesses:

EDWARD ROSE,

P. W. STOCKSLEGER.