A. M. VANPELT.

WIND WHEEL.

No. 180,679. Patented Aug. 1, 1876.

Fig. 1

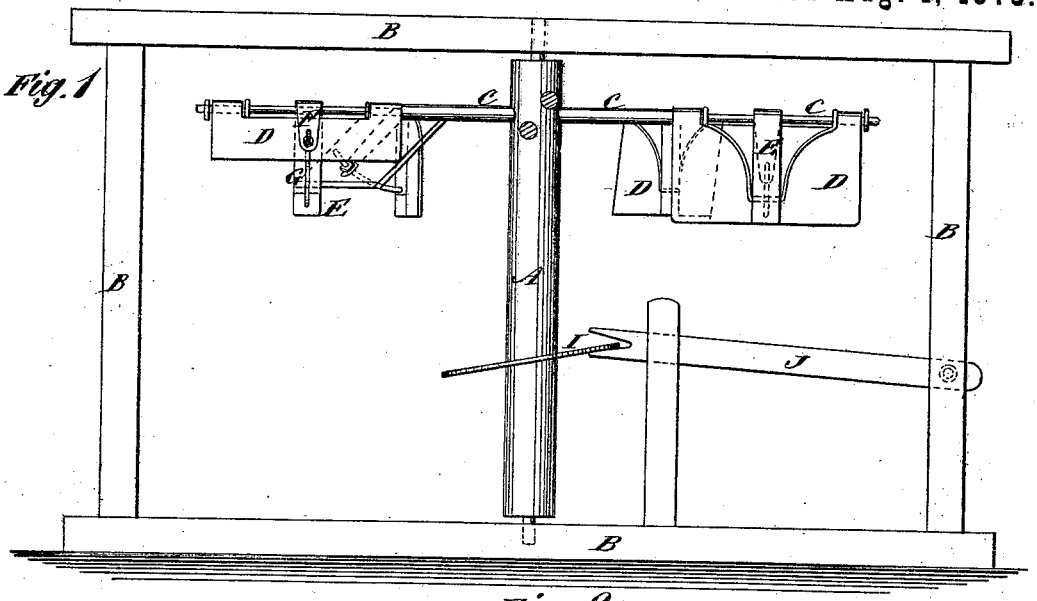


Fig. 2

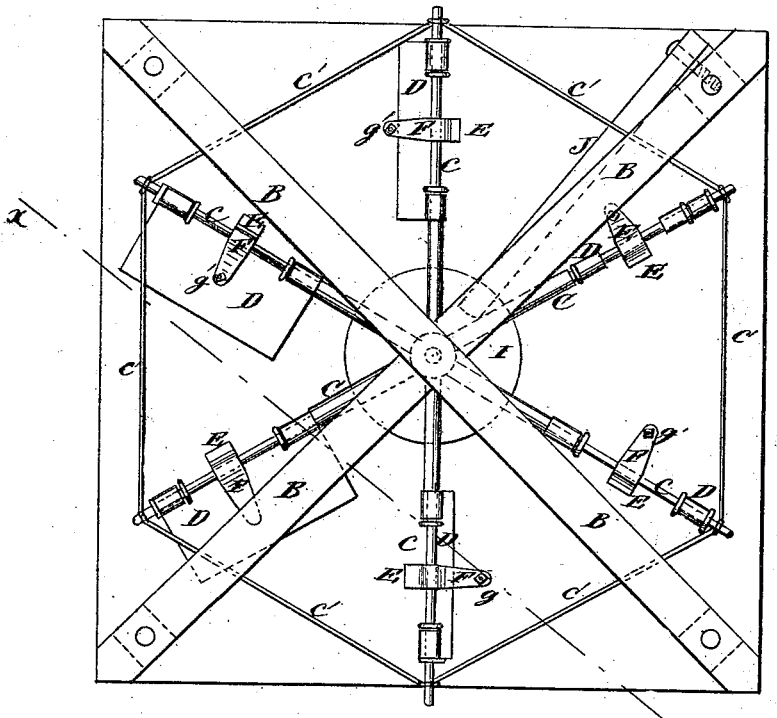
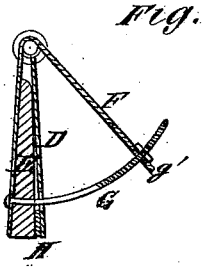


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

ALFRED M. VANPELT, OF CAPIOMA, KANSAS.

IMPROVEMENT IN WIND-WHEELS.

Specification forming part of Letters Patent No. **180,679**, dated August 1, 1876; application filed June 12, 1876.

To all whom it may concern:

Be it known that I, ALFRED M. VANPELT, of Capioma, in the county of Nemaha and State of Kansas, have invented a new and useful Improvement in Wind-Wheels, of which the following is a specification:

Figure 1 is a side view of my improved wind-wheel, partly in section, through the line *x x*, Fig. 2. Fig. 2 is a top view of the same. Fig. 3 is a detail cross section of one of the fans.

Similar letters of reference indicate corresponding parts.

The object of this invention is to improve the construction of wind-wheels to enable them to be adjusted, to cause them to work with more or less power, as may be desired.

The invention consists in the combination of the suspended weights, the adjustable bars, and the curved screw-rods, and their nuts, with the radial arms and the fans of a wind-wheel, as hereinafter fully described.

A is the shaft of the wind-wheel, the ends of which, or journals formed upon or attached to said ends, revolve in bearings in a frame-work, B. To the upper part of the shaft A are attached radial arms C, to the outer parts of which the fans D are pivoted, and the outer ends of which are connected by brace-rods *c'*. To the arms C, above the centers of the fans D, are pivoted the suspended weights E, which hang behind the fans D to hold them against the wind. With the upper ends of the suspended weights E are connected the upper ends of the bars F, which hang in front of the fans D, and are at an angle of forty-five degrees, (45°,) more or less, with the weights E, as may be desired. To the weights E are attached the ends of the curved rods G, which pass through the fans D, through the lower ends of the bars F, and have screw-threads cut upon their projecting ends to receive the nuts *g'*, so that, by adjusting the said nuts *g*, the power of the wheel may be regulated, as required. Rubber blocks H are attached to the forward sides of the weights E for the fans D to strike against, to prevent noise.

With this construction, as the wind blows against the forward sides of the fans D, it presses them against the weights E, and the weights support them against the wind, unless it be strong enough to raise the said weights, and thus take the fans out of the wind. Upon the other side of the wheel, where the wind blows against the back of the fans, the fans swing up against the arms F before the weights E can offer any resistance, and if the bars F were at right angles with the weights E the fans would rise into a horizontal position without encountering any resistance from the weights. If the bars F were down close to the forward side of the fans, the weights E would offer the same resistance to the wind, whether it blew against the forward or rear sides of the fans, and the wheel would stand still, so that, by adjusting the position of the bars F with the nuts *g'*, the wheel may be adjusted to work with any desired power.

To the shaft A is attached a wheel, I, at an angle with the said shaft, the rim of which enters a slot in the end of the pivoted lever J, and vibrates the said lever to give motion to the machine to be driven; or power may be taken from the shaft A by gearing, if desired.

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

The combination of the suspended weights E, the adjustable bars F, and the curved screw-rods G, and their nuts *g'*, with the radial arms C and the fans D of a wind-wheel, substantially as herein shown and described.

ALFRED M. VANPELT.

Witnesses:

CHARLES M. SHIFFER,

JOSHUA BUSHNELL.