

G. A. MYERS.
Wind Wheel.

No. 229,907.

Patented July 13, 1880.

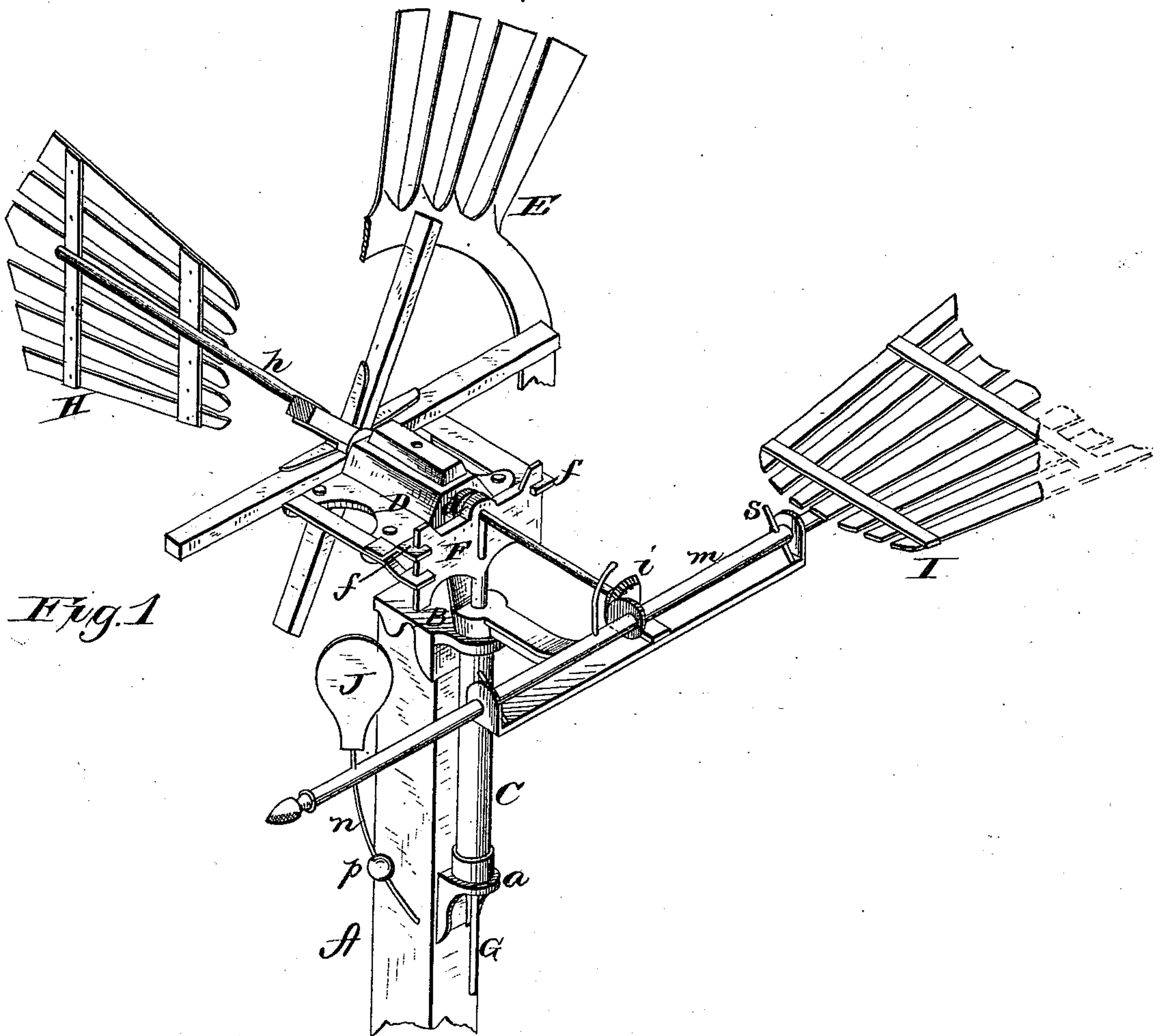


Fig. 1

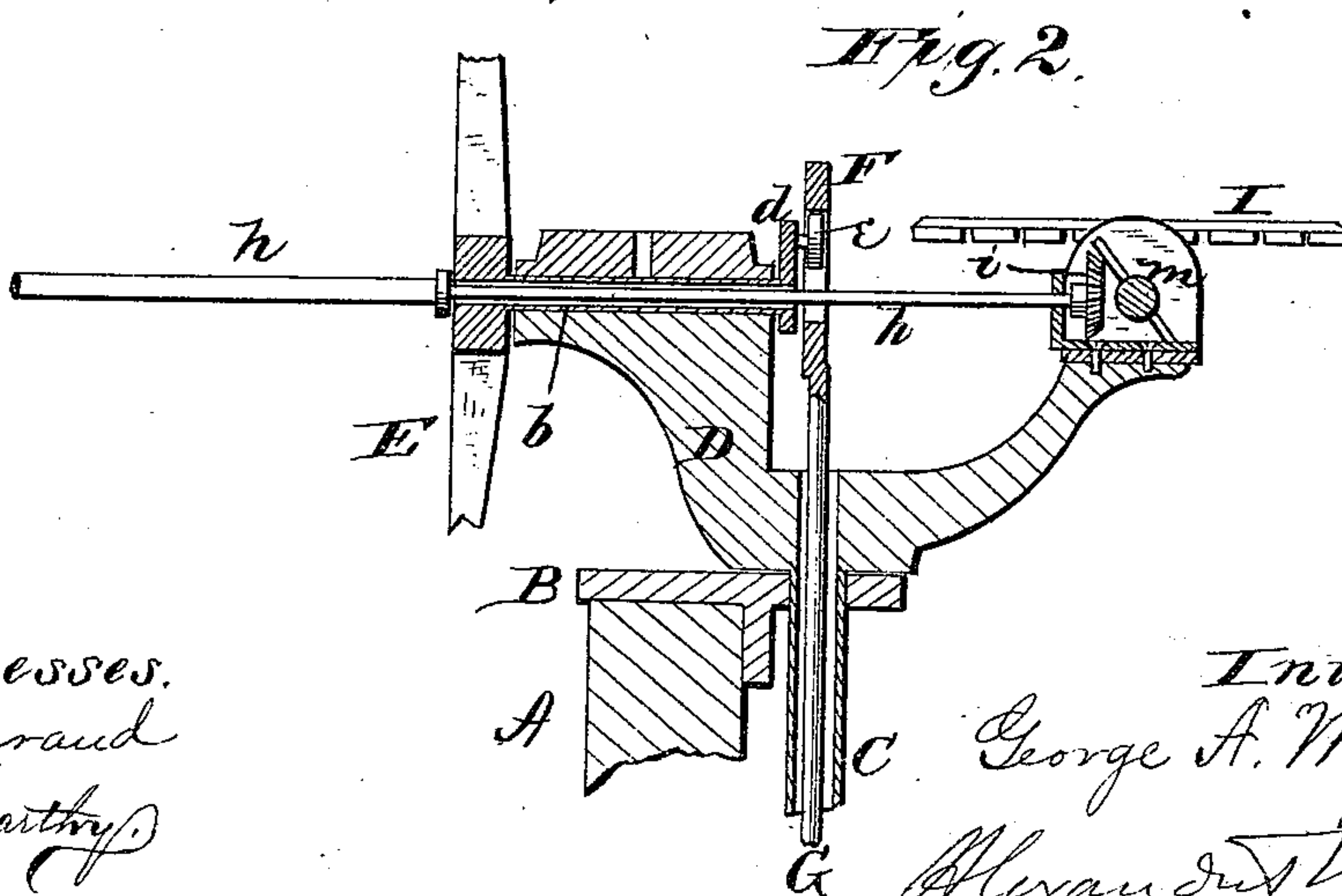


Fig. 2.

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GEORGE A. MYERS, OF SCHOOLCRAFT, MICHIGAN.

WIND-WHEEL.

SPECIFICATION forming part of Letters Patent No. 229,907, dated July 13, 1880.

Application filed December 2, 1879.

To all whom it may concern:

Be it known that I, GEORGE A. MYERS, of Schoolcraft, in the county of Kalamazoo, and in the State of Michigan, have invented certain new and useful Improvements in Wind-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a windmill, as will be hereinafter more fully set forth.

In the annexed drawings, Figure 1 is a perspective view of my improved windmill. Fig. 2 is a vertical section of the same.

A represents the tower or derrick of my windmill, provided with a casting, B, which forms the upper bearing for the tube C, the lower bearing for said tube being on a step, *a*, at the side of the tower. The tube C is formed with a head, D, of substantially the form shown in Fig. 2, which supports the wind-wheel and vanes.

E is the wind-wheel, attached to a hollow sleeve, *b*, which has an elongated bearing in the head D, and is at its inner end provided with an eccentric, *d*, having on its face a projecting stud and roller, *e*. This stud and roller work in a slot in a cross-head, F, so as to move the same vertically up and down in guides *f*, formed on or secured to the head or casting D. The cross-head F is provided with the pitman G, which passes down through the tube C, and is to connect with the pump-rod.

Through the hollow sleeve *b* is passed a shaft, *h*, which carries at its forward end a vane, H, and at its rear end is provided with a beveled cogged segment, *i*. This segment gears with a similar segment on a shaft, *m*, which runs in suitable bearings at right angles to the shaft *h*. The shaft *m* carries at one end a vane, I, and at the other end a rod, *n*, is passed through

the shaft, which rod has upon one end a wing, J, and on the lower end an adjustable weight, *p*.

The normal position of the parts is as represented in the drawings—that is to say, the vane H stands vertical and the vane I horizontal. The wind strikes the wheel E from the back, and the wheel keeps itself in the wind according as the wind may change. As the wind increases the wing J is forced forward, and turns the vane I more or less from a horizontal position, and at the same time the vane H is correspondingly turned more or less from its vertical position. The wind acting upon the vane I will turn the wheel more or less out of the wind. Then as the wind lulls the weight *p* brings the vanes back to their original position, and the wind acting upon the vane H throws the wheel back into the wind again.

The oscillating shaft *m* is provided with stops *s*, so that it can only turn a certain distance in either direction.

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

1. The combination of the heading-vane H with shaft *h*, hollow shaft *b*, bevel-gears *i*, and oscillating shaft *m*, substantially as and for the purposes herein set forth.

2. The oscillating shaft *m*, provided with stops *s*, bevel-gear *i*, vane I, rod *n*, wing J, and weight *p*, in combination with the shaft *h* and heading-vane H, substantially as and for the purposes herein set forth.

3. The combination of the wheel E with hollow shaft *b*, shaft *h* with vane H, and the shaft *m* with vane I and weighted wing J, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of November, 1879.

GEORGE A. MYERS.

Witnesses:

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