

J. Tomlinson, Wind Wheel.

N^o 39,690.

Patented Aug. 25, 1863.

Fig. 1.

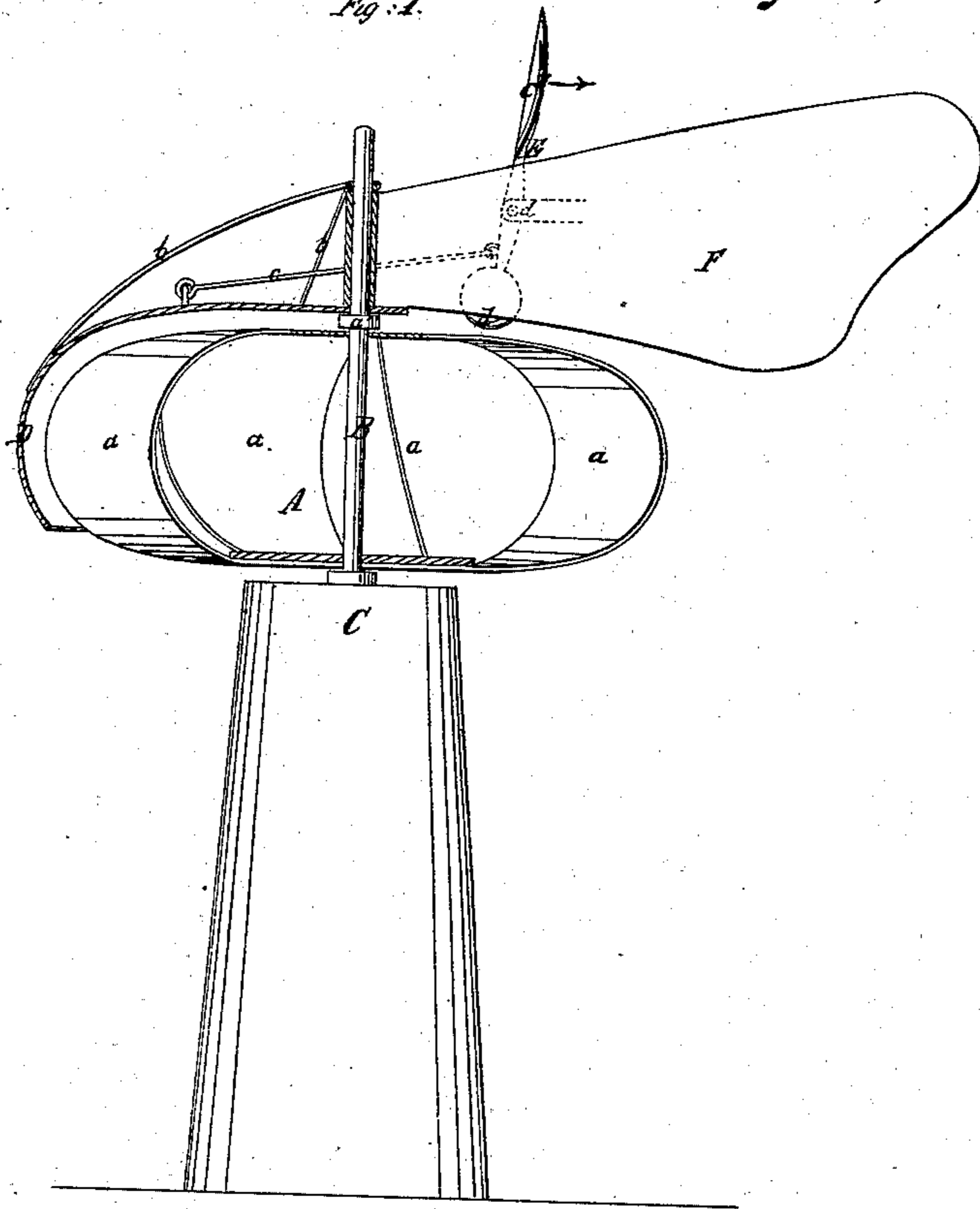
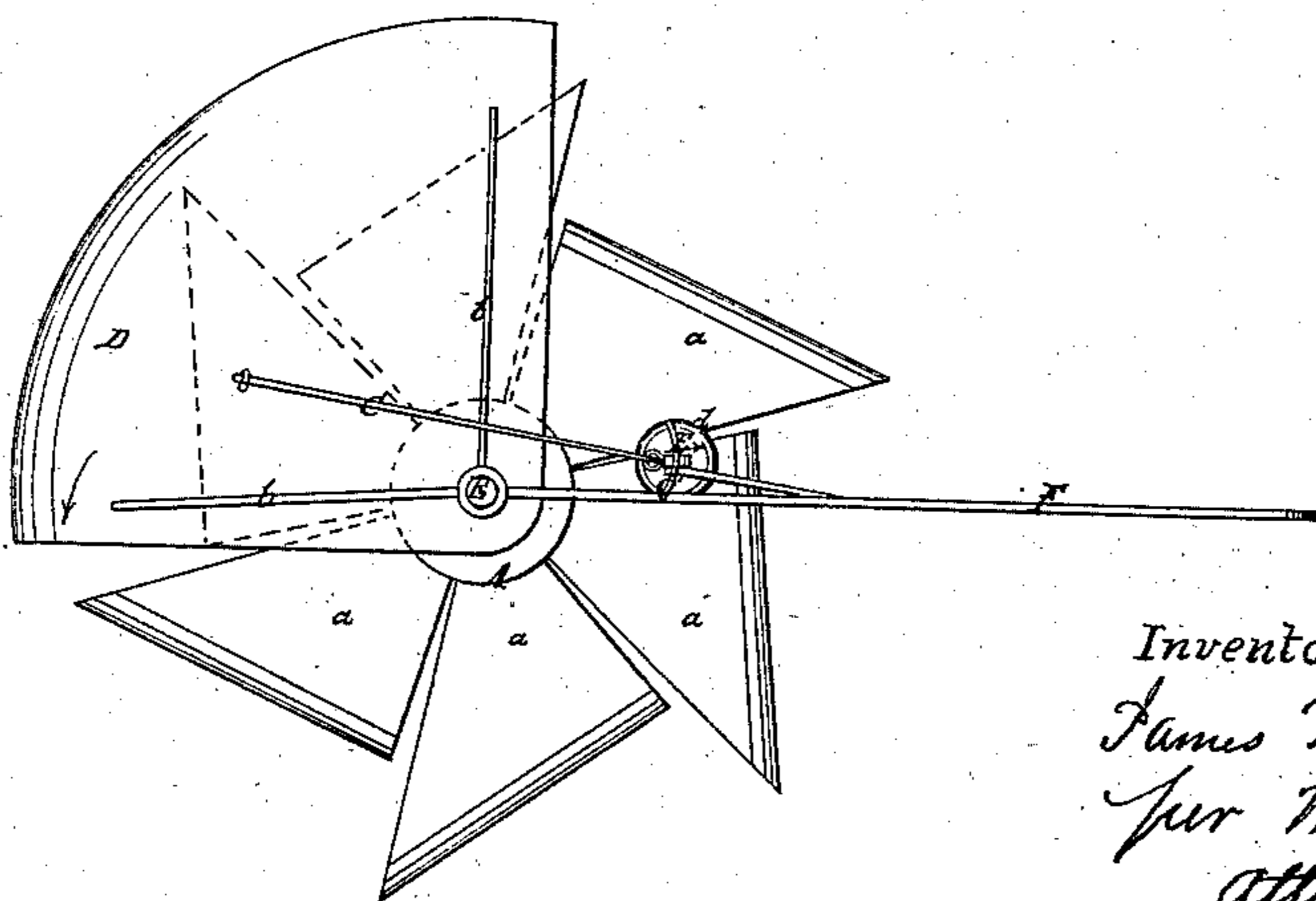


Fig. 2.



Witnesses

J. W. Coombs
G. W. Reed

Inventor

James Tomlinson
per Munn & Co.
Attorneys

UNITED STATES PATENT OFFICE.

JAMES TOMLINSON, OF RACINE, WISCONSIN.

IMPROVEMENT IN WIND-WHEELS.

Specification forming part of Letters Patent No. 39,690, dated August 25, 1863.

To all whom it may concern:

Be it known that I, JAMES TOMLINSON, of Racine, in the county of Racine and State of Wisconsin, have invented a new and Improved Wind-Wheel; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a vertical central section of my invention. Fig. 2 is a plan or top view of the same.

Similar letters of reference in both views indicate corresponding parts.

This invention consists in the arrangement of a movable shield, in combination with a wind-wheel and with the vane, and connected to the same by suitable rods in such a manner that by the action of the vane on the shield more or less of the fans of the wind-wheel are covered up or protected against or exposed to the action of the wind, and the power of the wheel is thus rendered self-regulating, according to the greater or smaller force of the wind.

To enable those skilled in the art to make and use my invention, I will proceed to describe it.

A represents a wheel, made of sheet-iron or other suitable material, with six (more or less) scoop-shaped fans, *a*, similar to those of pin-wheels, which are usually made of paper and fastened by means of pins to sticks to whirl round by the action of the wind. This wheel is secured to a shaft, B, which rises from a standard, C, and it is protected by a shield, D, that protects three of the fans on one side of the wheel against the action of the wind.

The shield D connects with the upper end of the shaft B in such a manner that it can be freely rotated on the same in either direction. It rests on a collar, *a'*, on the shaft, and it is

steadied by braces *b*, or it may be attached to the shaft in any other desirable manner producing the same effect. Said shield connects by means of a rod, *c*, with a lever, E, the upper portion of which forms a wing or scoop, *c'*, and which is fulcrumed on a pivot, *d*, projecting from the side of the vane F. A weight, *d*, suspended from the lower end of this lever, has a tendency to throw the same in a vertical position, and at the same time the position of the shield is so regulated that those fans of the wind-wheel which move with the wind are exposed to the full force of the wind, and those fans which move against the wind are protected. If the wind changes, the shield rotates with the vane, and the motion of the wheel is not interrupted, and if the force of the wind increases beyond a certain point its action on the wing *c* at the top of the lever E causes said lever to swing back in the direction of the arrow marked near it in Figs. 1 and 2, and the shield D is caused to move in the direction of the arrow marked on it in Fig. 2.

By these means the effective surface of the wind-wheel is diminished, and its power is regulated according to the power of the wind.

This wheel is very simple in its construction, and it can be entirely made of sheet-iron, so that it is of superior durability, and not liable to get out of order.

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

The arrangement of the shield D, in combination with the wheel A, weighted lever E, and vane F, constructed and operating as and for the purpose shown and described.

JAMES TOMLINSON.

Witnesses:

M. B. ERSKINE,
STEPHEN BULL.