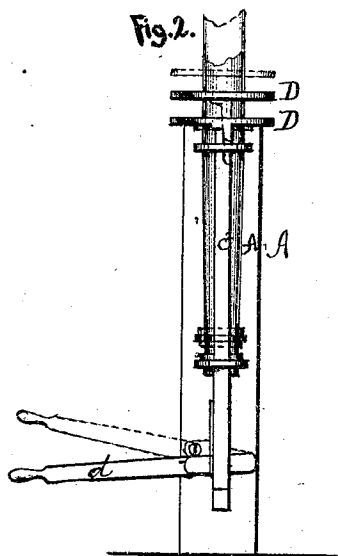
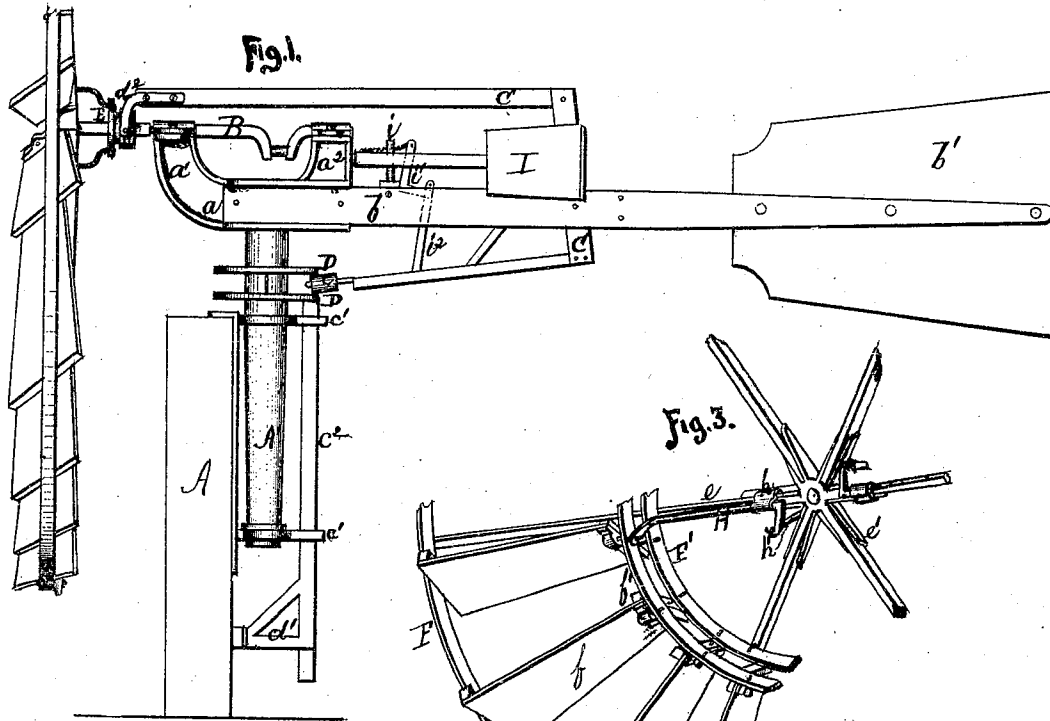


*W. Peck,
Wind-Mill.*

No. 100061.

Patented Feb. 22. 1870.



WITNESSES.
*Horace Packard
Fred Thomas*

INVENTOR.
*Walter Peck by
H. W. Beadle atty.*

United States Patent Office.

WALTER PECK, OF ROCKFORD, ILLINOIS.

Letters Patent No. 100,061, dated February 22, 1870.

IMPROVEMENT IN WINDMILLS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, WALTER PECK, of Rockford, in the county of Winnebago, and State of Illinois, have invented a new and improved Windmill; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and to the letters of reference marked thereon.

This invention is an improvement on those patented by me December 31, 1867, and September 1, 1868, and consists mainly in certain devices whereby the fans are more efficiently regulated; also, in certain other details of construction, which will be more fully explained hereinafter.

In the drawings—

Figure 1 is a side elevation of my invention;

Figures 2 and 3, perspective views of portions detached; and

Figure 4, a front elevation, with the fan removed.

To enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation.

A represents a vertical standard, to which are securely attached the bearings of the revolving cylinder A', on the upper end of which is located the metal head a, which is provided with projections a' a', in which are the bearings of the crank-shaft B.

To the head a are attached the strips b, one on each side, between the rear ends of which is the fan b'.

Between the fan b' and the head a is pivoted the elbow-lever C, which is provided at its upper end with the connecting-rod C', and at the lower and inner end with the roller c.

The bearings of the cylinder A' have projections c' c', in which are orifices for the vertical connecting-rod c' to pass through.

The rod c' is attached at its upper end to the circular horizontal collars D D, which surround the cylinder A' near the upper end thereof, and are sufficiently far apart to allow the roller c to pass between them, thus forming a circular track therefor.

d represents a lever, to which the lower end of the rod c' is connected by an arm d', while the lever d is pivoted to the standard at one side of the point of attachment of the arm d', and when operated, raises and lowers the rod with the collars D D which operate the elbow-lever C and connecting-rod C'.

The latter is provided with a clutch, d', which is attached to the sliding collar E on the shaft B.

The fan-wheel is constructed with the spokes or braces e, attached to the sockets e', which are rigidly attached to the shaft B.

F F' represent concentric rings of metal, which are suitably attached to the spokes e, and are sufficiently far apart to admit the fans f between them, which latter are pivoted so as to turn freely.

f' represents an additional movable ring, beside the ring F, to which, also, the inner ends of the fans are pivoted, thus giving each fan two bearings on the inner ends.

The ring f' is connected with the sliding collar E by means of the crank-levers H, which are two in number, and work in the sockets h h on the spokes e, and by the rods k k, which pass from the inner ends of the cranks to the collar. Each end of the levers H is provided with a crank. That at the outer end projects farther from the spokes than at the inner, and is pivoted to the ring f'.

I represents the regulating-fan, the shank of which is pivoted upon a projection, i, near the head a, and its inner end is attached by a chain or other suitable method to the bell-crank lever i', which is connected to the elbow-lever C by the strip i'.

The connecting-rod C' is attached to the collar E by the ends d', one on each side, which are bent downward, and provided with orifices through which pass the ends of the half circles x x, fig. 4, which surround the collar, being fitted in an annular groove of the same.

The operation of my invention is as follows:

The fans, being set in motion, turn the crank-shaft B, and impart motion by any suitable connection to the mechanism to be operated. The regulation of the fans is effected by the regulating-fan I, which, when swung inward, raises the elbow-lever C, and draws back the connecting-rod C' and collar E, which will turn the crank-lever H in such manner as to open the fans. If the regulating-fan should not prove sufficient, the lever d' and connecting-rod c' are operated, which, when raised, force the collars D D up, and with them the lever C, which produces the same effect as before described.

In case two rows of fans are employed, as shown in fig. 3, three stationary rings are used, with an additional movable ring, beside the center one, to which the fans are pivoted, as in the former case, except those of the inner row, which are pivoted at the outer instead of the inner ends.

Having thus fully described my invention,

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The ring f', in combination with the fans f, crank-levers H, rods k k, and collar E, substantially as described.

2. The regulating-fan I, in combination with the bell-crank lever i', and elbow-lever C, as and for the purpose set forth.

3. The rod C, attached to the collar E, constructed substantially of the bent ends d', and semicircular pieces x x, substantially as described.

4. The rods c', operated by the lever d, in combination with the collars D D and elbow-lever C, arranged and operated as and for the purpose described.

This specification signed and witnessed this 13th day of July, 1869.

WALTER PECK.

Witnesses:

G. W. FORD,
E. A. NICHOLS