

UNITED STATES PATENT OFFICE.

A. LEMPCKE, OF PLEASANT MOUNT, PENNSYLVANIA.

MODE OF CHECKING WINDMILLS.

Specification forming part of Letters Patent No. 12,822, dated May 8, 1855.

To all whom it may concern:

Be it known that I, A. LEMPCKE, of Pleasant Mount, in the county of Wayne and State of Pennsylvania, have invented a new and Improved Windmill; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawing, making a part of this specification, said drawing being a side elevation of my improved windmill.

The nature of my invention consists in the peculiar device for stopping the mill.

To enable others skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a vertical hollow shaft having a bevel-wheel B at its upper end. To the hollow shaft A two arms *a a* are attached, at the upper ends of which are the bearings of a horizontal shaft C, which has a bevel-wheel D on its inner end, said wheel D gearing into the bevel-wheel B. The hollow shaft A turns freely around the shaft to which the bevel-wheel B is attached, and of course the shaft C turns with it.

To the outer end of the shaft C there is attached a hub *b*, in which radial arms *c* are attached, said arms being allowed to turn in the hub. To the arms *c* the sails or wings *d* are secured, the sails being, as usual, broader at the top than at the bottom and supported by rods *e*, which, with the arms *c*, serve as frames on which the sails or wings are secured if formed of canvas. The sails or wings, however, if formed of wood or sheet metal, would merely require the arms *c*, and the latter material might possibly be used in small mills.

On the shaft C there is a sleeve or collar D', having a flange or circular rim *d'* on its outer end. To this flange or rim *d'* chains *e'* are secured, said chains being also attached to the side rods *e* of the wings or sails, one to each.

E is a lever, one end of which is attached by a pivot *f* to the sleeve or collar D'. The opposite end of this lever is connected by a pivot *g* to the upper end of a bent lever F, having its fulcrum at *i* on the upper end of the arm *a*. To the lower end of the bent lever F there is attached by a pivot *j* a rod *k*, the lower end of which rod is attached by a

pivot *l* to a lever G, having its fulcrum at *m* on the hollow shaft A. To the outer end of the lever G a weight H is suspended.

I is a semicircular plate attached to the hollow shaft A, said plate having holes *u* made through it, through either of which a pin *o* passes in order to support the lever G at any desired point.

J is a lever attached by pivots *p* to the hollow shaft A, the pivots *p* serving as a fulcrum. To the outer end of this lever a rod K is attached by a pivot *r*, the upper end of said rod being provided with a friction-roller *s*, which bears against the end of a rod which is attached to the sleeve or collar D'. The end of the rod L has a fork *t* attached to it, and on the shaft C directly over this fork a screw-thread M is attached. The lower end of the lever J is provided with a step *u*, the lever J being double or formed of two rods which pass each side of the hollow shaft and are united at their outer ends, both rods of the lever being secured to the hollow shaft by pivots *p*.

The operation will be readily understood. The wind acts against the sails or wings in the direction indicated by the arrow, and the weight H, by means of the levers G F E, keeps the sails or wings turned in such a position as to present a requisite area or surface to the wind, and, as the lever G may be raised or lowered by adjusting the pin *o* in the plate I, it follows, as a matter of course, that the sails or wings may be turned more or less toward the wind, so as to obtain the desired velocity. The weight H is not so heavy as to prevent the sails or wings yielding to violent gusts of wind. In order to stop the mill, the foot is placed on the step *u* and the inner end of the lever J depressed. The rod L is consequently thrown upward, and the screw M will catch with the fork *t* and throw the rod L and sleeve or collar D' outward toward the wings or sails, thus allowing the sails or wings to turn edgewise toward the wind, as shown in red, and as they present no surface to the wind in that position the mill of course stops. The inner end of the lever J may be kept down by a catch *v*.

The above invention is extremely simple, not liable to get out of repair, and is economical to manufacture. It will answer ad-

mirably well for farmers' use, as it may be made portable and still give sufficient power for driving agricultural implements, such as thrashing-machines, separators, &c.

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

Operating the sleeve or collar D' or moving said sleeve or collar on the shaft C toward the wings or sails *d* by means of the screw M on the shaft C, rod L, attached to

the sleeve or collar D', and lever J, as herein shown, whereby the chains *e'* are slackened and the wings or sails allowed to turn edge-wise to the wind, thereby presenting no surface to the wind, and consequently stopping the mill, as herein described.

A. LEMPCKE.

Witnesses:

H. W. BROWN,
ROBERT CLARK.