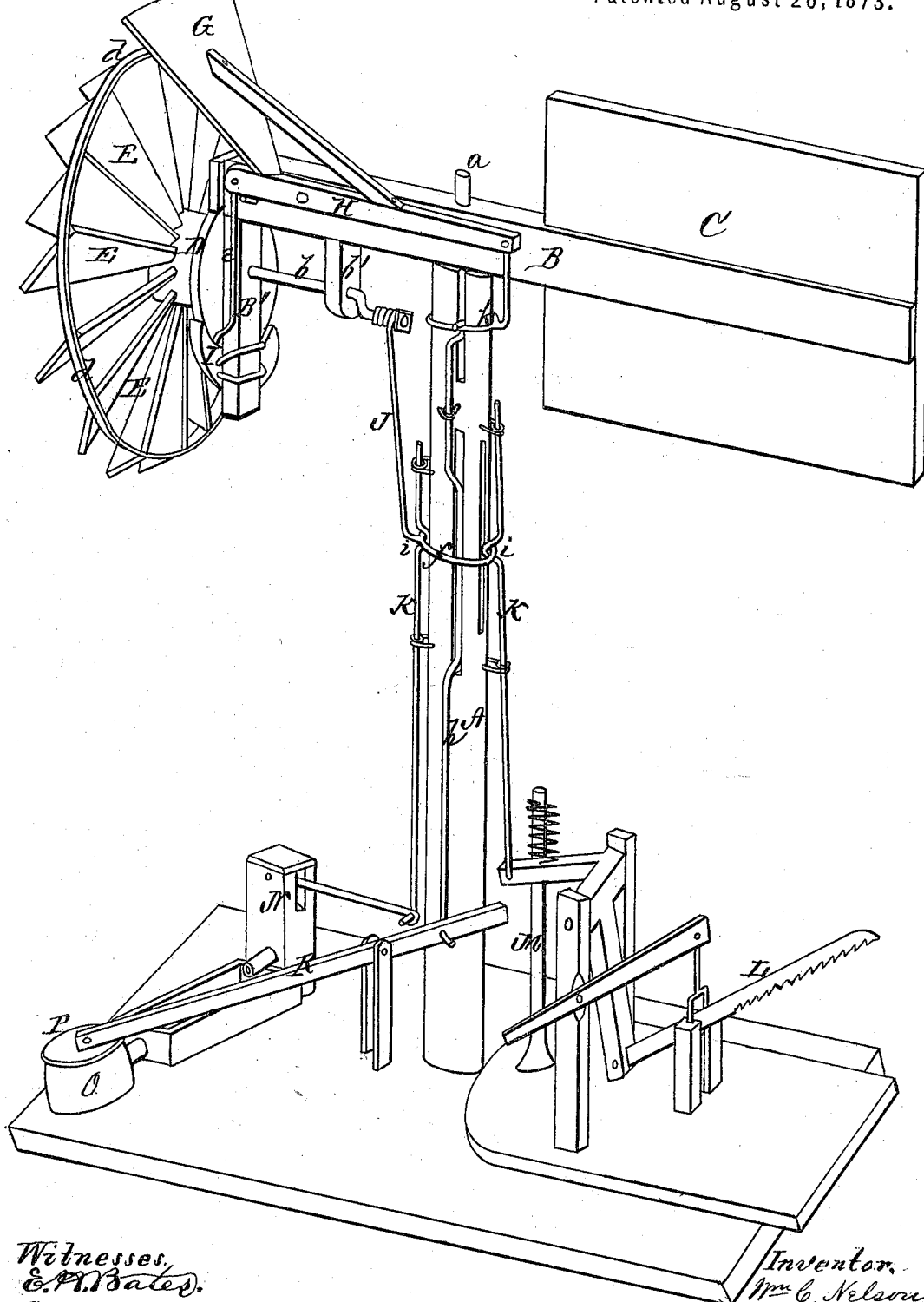


Wind-Mills.

Patented August 26, 1873.



Witnesses,
E. A. Bates.
George E. Upham.

Inventor,
Mr. C. Nelson
Chippewa Falls, Wis.
Atty

UNITED STATES PATENT OFFICE

WILLIAM C. NELSON, OF KENTLAND, INDIANA.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **142,266**, dated August 26, 1873; application filed July 19, 1873.

To all whom it may concern :

Be it known that I, WILLIAM C. NELSON, of Kentland, in the county of Newton and State of Indiana, have invented a new and valuable Improvement in Windmills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

The nature of my invention consists in the construction and arrangement of a windmill designed especially for the use of farmers to perform certain work usually done by hand, such as, for instance, sawing wood, pumping water, churning, washing clothes, &c., as will be hereinafter more fully set forth.

The accompanying drawing is a perspective view of my windmill.

A represents a solid upright post of any suitable dimensions, having a tenon or pin, *a*, in its upper end, upon which is placed and turns a beam, B, carrying the wind-vane C at one end. At the other end of the beam B is a bar, B', extending vertically downward, and in this bar the wheel-shaft *b* has its outer bearing, the inner bearing being in a short post, *b'*, on the under side of the beam B. The wind-wheel, which is secured on the outer end of the shaft *b*, is composed of a hub, D, with a series of triangular-shaped wings, E E, set in an inclined position and strengthened by a band, *d*, around their outer ends. This makes the face of the wheel concave, whereby the wind will get so much more power to turn it, or it will be so much easier for the wind to turn the wheel. G represents a regulating-vane, which is attached to the front end of a lever, H, which is pivoted to the side of the beam B. The front end of this lever is by a rod, *e*, connected with a brake-shoe, I, which, by means of suitable loops, is attached to the lower end of the bar B', and is capable of being moved up and down on the same. As the wind increases the vane G turns the lever H on its pivot, thereby pulling the brake I upward against the hub D, and hence lessening the speed of the wheel, and, if the wind is very strong, stopping it altogether. On the

inner end of the wind-wheel shaft *b* is a crank or wrist pin, from which a pitman, J, extends downward, and said pitman is at its lower end provided with a ring, *f*, which surrounds the post A. This ring *f* passes through bends *i i*, formed in a series of pitmen, K K, placed in suitable guides in vertical position around the post A.

These pitmen are intended to operate various machines used on a farm. For instance, one of them is shown in the drawing as attached to and operating a saw, L. The same, or another pitman, may operate a churn or wash-pounder, M, and still another operate a pump, N. Connected with the pump-trough is a vessel, O, provided with a float, P, attached to a lever, R, pivoted to a short post or standard. The other end of the lever R is, by a rod, *h*, connected with a ring, *k*, surrounding the upper end of the main post A. This ring passes through a bend in the upper end of the rod *h*, and is connected by a short rod with the inner end of the lever H. When the pump-trough is full the water passes into the vessel O and raises the float P, and, by the connection just described, applies the brake to the wheel-hub D, stopping the motion of the wheel.

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

1. The combination of the vane G, lever H, rod *e*, and brake I, substantially as and for the purposes herein set forth.

2. The combination of the wind-wheel shaft *b*, provided with crank or wrist pin, the pitman J with ring *f*, and the pitmen K K, all substantially as and for the purposes herein set forth.

3. The combination, with the brake-lever H, of the rod and ring *k*, rod *h*, lever R, float P, and vessel O, connected with the pump-trough, as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM CLARK NELSON.

Witnesses:

JAMES T. SAUNDERSON,
GEO. W. SMITH.