

W. C. NELSON.
Wind-Mills.

No. 146,607.

Patented Jan. 20, 1874.

Fig. 1.

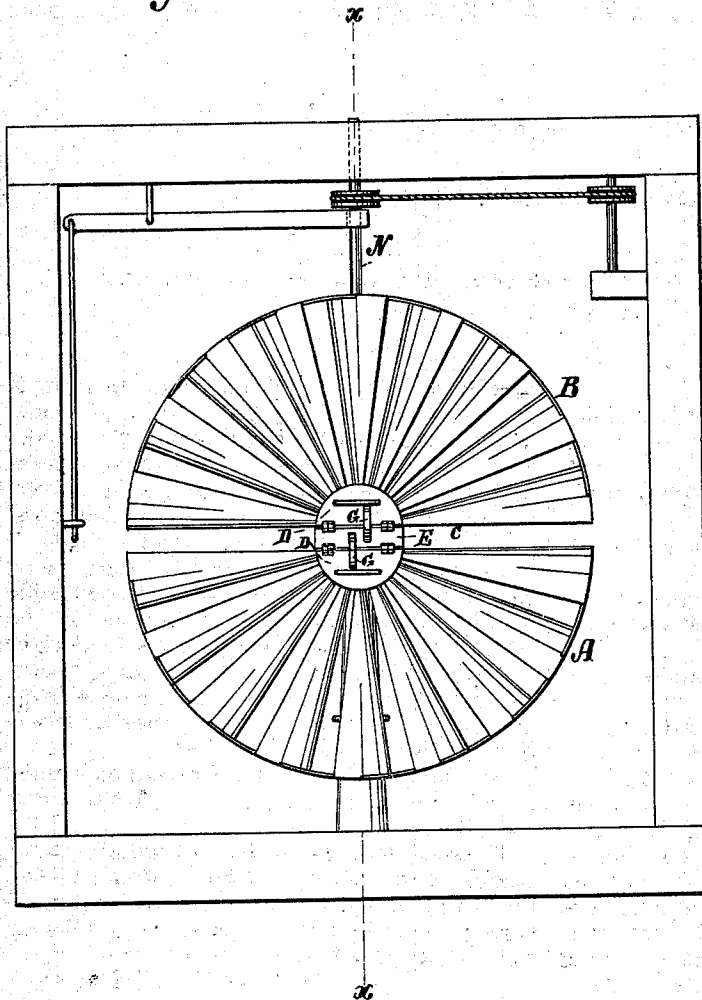
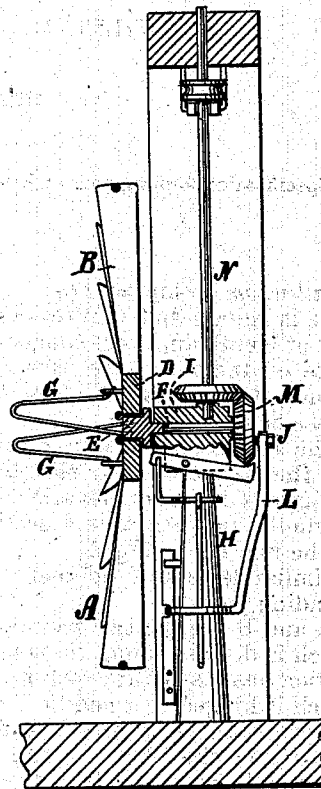


Fig. 2.



WITNESSES:

A. Bennekenhoff.
S. J. Quirk

INVENTOR:

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BY *M. C. Nelson*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM C. NELSON, OF KENTLAND, INDIANA.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **146,607**, dated January 20, 1874; application filed December 1, 1873.

To all whom it may concern:

Be it known that I, WILLIAM CLARK NELSON, of Kentland, in the county of Newton and State of Indiana, have invented a new and Improved Windmill, of which the following is a specification:

The invention will first be fully described, and then pointed out in the claim.

Figure 1 is a front elevation of my improved windmill, and Fig. 2 is a sectional elevation on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A and B are the two sections of the wheel, which is divided along the space C, and each section has a separate portion, D, of the hub, which is hinged to a middle portion, E, which comprises a T-head to the shaft F. Each section of the wheel has a spring, G, attached to the middle portion of the hub, and arranged to hold the section up to the wind when the latter is not too strong, and to yield when it is too strong, and, by allowing the section to swing around toward the plane of the shaft, relieve the wheel, and thus protect it from damage, when the force of the wind is too great for it. The wheel is arranged to receive the wind from

behind the standard H, on which its shaft is supported, and to dispense with a tail-vane, which is required for keeping it in the winds, when arranged to take it in advance of the post. The shaft extends through the revolving cap by which it is mounted on the post, and carries at the projecting end a crank, J, for working a connecting-rod, L, for giving reciprocating motion to a pump or other machine below. It also carries a bevel-wheel, M, on said projecting end, which drives an upright shaft, N, above, from which to obtain rotary motion. I propose to make the wheel M large enough to operate as a balance-wheel or attach one to it to regulate the motion.

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

The separated parts A B of a windmill-wheel, combined with a hub in three sections, the two outer hinged to the middle one and held in the same plane therewith by springs G G, substantially as and for the purpose set forth.

WILLIAM C. NELSON.

Witnesses:

THOMAS E. POOLE,

E. LITTELL THURSTON.