T. G. & J. C. Wilson,

Wind Wheel,

No. 16,943. Patented Mar. 31, 1857.

Fig. 2.

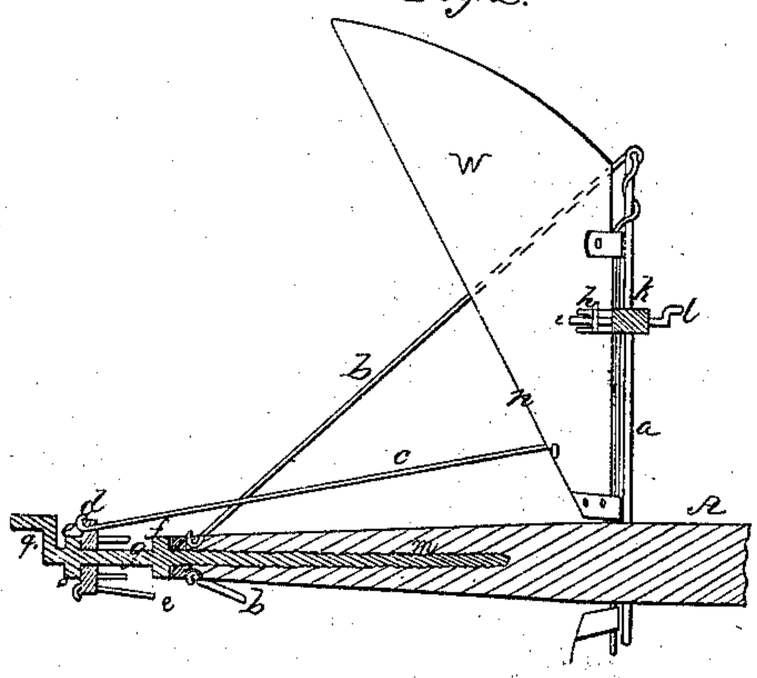


Fig. 3.

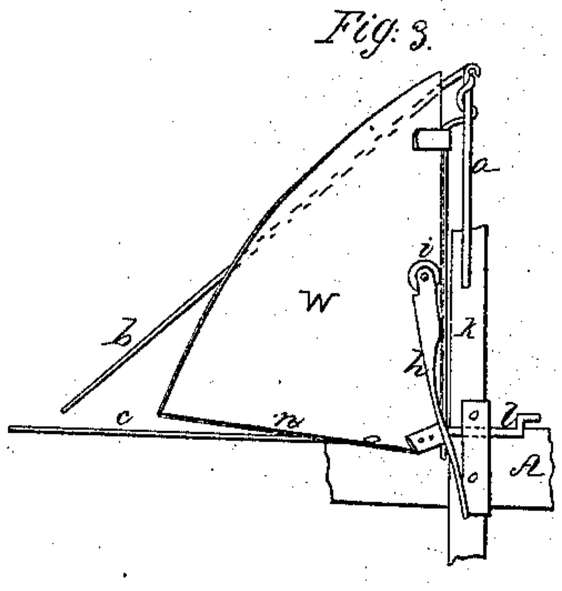
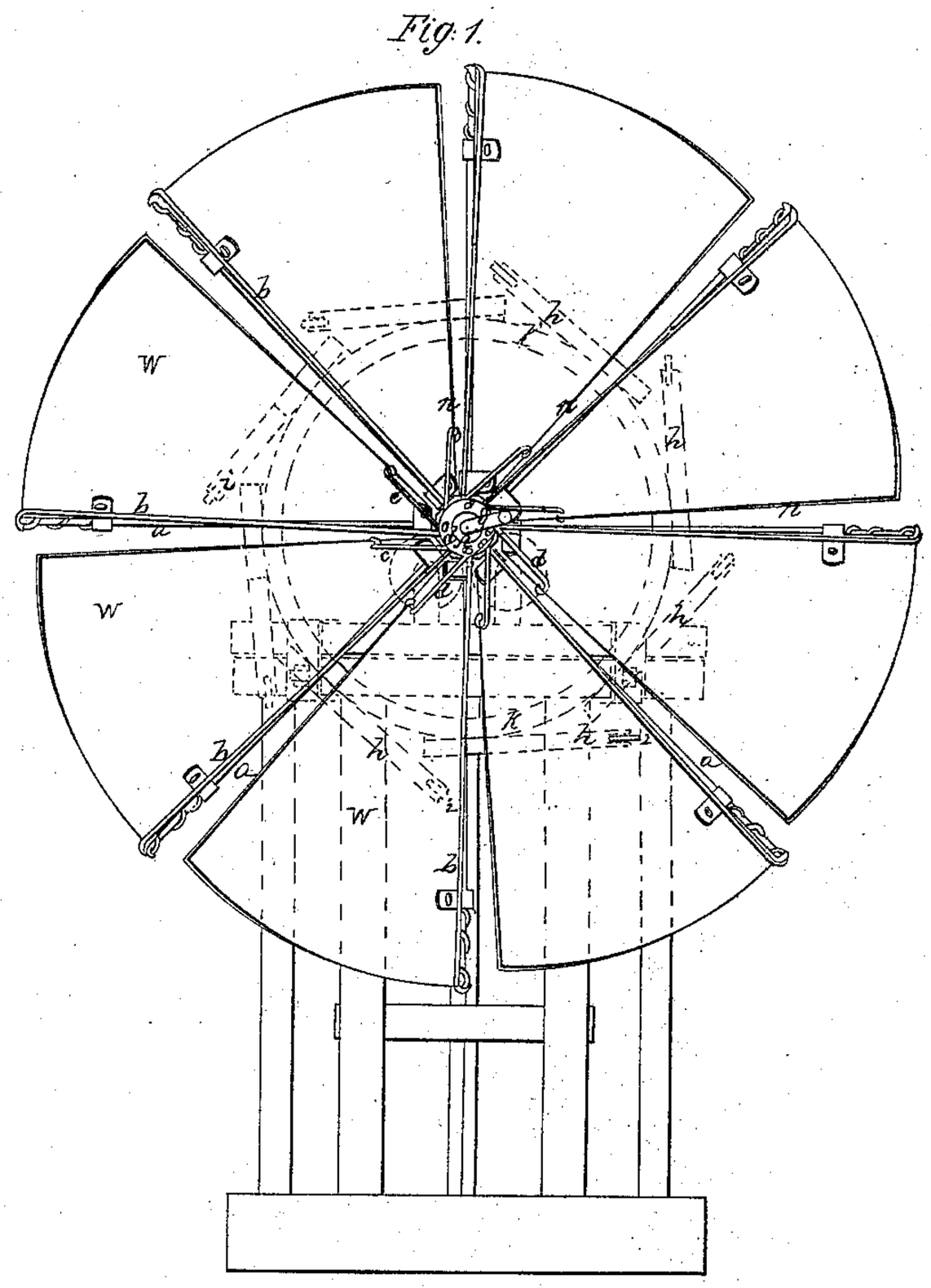


Fig. 1.



UNITED STATES PATENT OFFICE.

J. C. WILSON AND T. G. WILSON, OF CEDAR HILL, TEXAS.

IMPROVED METHOD OF FEATHERING THE SAILS OR VANES OF WINDMILLS.

Specification forming part of Letters Patent No. **16,943**, dated March 31, 1857.

To all whom it may concern:

Be it known that we, J. C. WILSON and T. G. WILSON, of Cedar Hill, in the county of Dallas and State of Texas, have invented a new and useful Improvement in Wind-Wheels; and we 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, forming part of the same, in which—

Figure 1 is a face view of the wheel. Fig. 2 is a section through axis of shaft, showing one wing and rods connected therewith. Fig. 3 is a view showing action of springs upon the wings, one wing, a section of shaft, and a portion of the rim being shown.

Similar characters of reference in the several figures denote the same parts.

The nature of our invention consists in a means of bringing the edges of the wings to the wind for the protection of the wheel during storms.

In the drawings, A is the main shaft placed horizontally and geared with the mill-shaft in the usual manner.

W W are the wings, each movable upon one of the arms *a*, radiating from the shaft A. These arms are held firm by braces *b*. The wings are all connected by rods *c* with the slide-piece *d*, movable between stops *e* and *f* on spindle *g*. Behind each wing is a spring *h*, with a roller *i* in its extremity. These springs are fastened upon a rim *k*, secured to arms *a*, and are regulated in strength by screws *l*.

In the extremity of the shaft A is inserted a screw *m*, which when moved outward will carry stop *f* against slide-piece *d*, so as to produce the movement of said slide in direction of the axis of the shaft, and by drawing on rods *c* turn the edges *n* of the wings W in direction of the said slide-piece. The springs *h* are of sufficient strength to resist the pressure of wind necessary for turning the wheel, and when a sudden flaw occurs they will yield temporarily to the pressure thus exerted against the wings and force the wings to resume their position when the increased pressure is removed. The slide-piece *d* moves along spindle *g* during the aforesaid action.

When storms occur, the crank *q* is held by the miller, causing the rotation of the wheel to produce the outward movement of the screw *m*, which, acting on rods *c*, will draw the edges *n* of the wings in direction of the outer extremity of the shaft A and cause the wings to lie in planes passing through the axes of arms *a* and main shaft A. The wind will then be able to act on their edges only and no damage to the wheel ensues.

What we claim, and desire to secure by Letters Patent, is—

The combination of the traversing screw *m*, having stops *e* and *f*, as described, with the slide-piece, and rods leading to the wing, the construction and arrangement being substantially as and for the purposes described.

In testimony whereof we have hereunto signed our names before two subscribing witnesses.

J. C. WILSON.
T. G. WILSON.

Witnesses:
GEO. PATTEN,
JOHN S. HOLLINGSHEAD.