S. M. ABBOTT.

Wind-Mill.

No. 167,487. Patented Sept. 7, 1875.

Fig 1

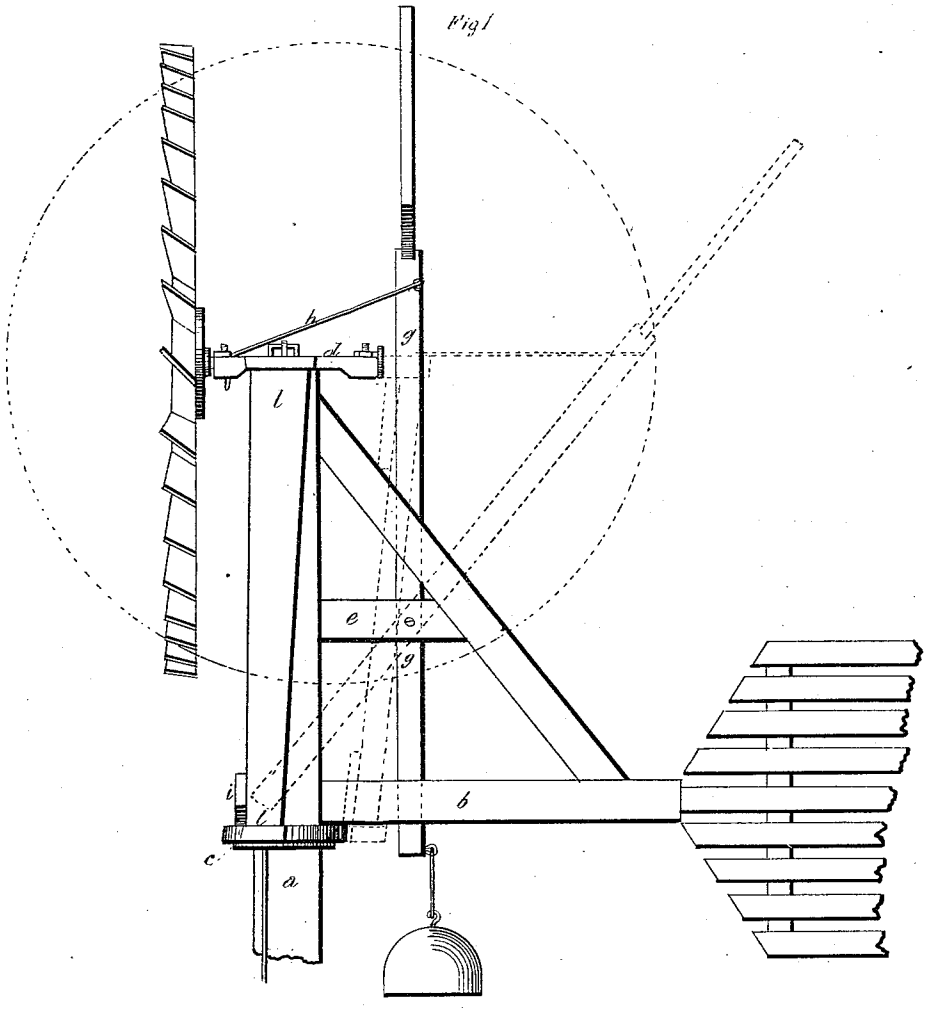
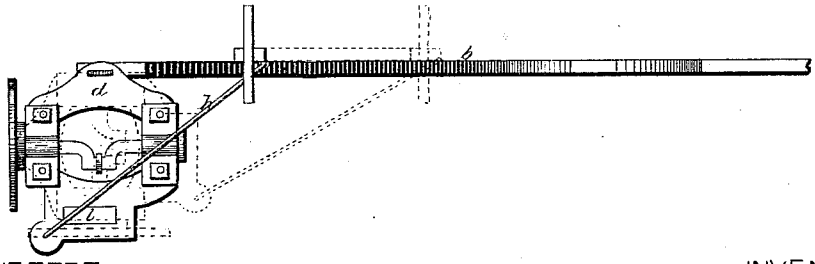


Fig 2



WITNESSES.

J. Wm. Garner,

M. Lemon.

INVENTOR.

S. M. Abbott

per F. A. Lehmann

Atty.

UNITED STATES PATENT OFFICE.

SAMUEL M. ABBOTT, OF WILMINGTON, ILLINOIS.

IMPROVEMENT IN WINDMILLS.

Specification forming part of Letters Patent No. **167,487**, dated September 7, 1875; application filed March 8, 1875.

To all whom it may concern:

Be it known that I, SAML. M. ABBOTT, of Wilmington, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Windmills; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings which form part of this specification.

My invention relates to an improvement in windmills, and relates to that class in which a revolving mast and rigid tail-vane is used; and it consists in pivoting the turn-table to one side of the mast and connecting the table by means of a rod with a small vertical vane that is pivoted to the tail-vane. When the wind blows too hard the vertical vane is forced backward, so as to draw the turn-table and wheel around toward the tail-vane, as will be more fully described hereafter.

The accompanying drawing represents my invention.

a represents a revolving mast, having rigidly attached to it the tail-vane *b*. At a suitable distance from the ground there is secured a metal collar, *c*, which serves to prevent the mast from being worn away at this point, and to offer a smooth surface to the clasp at the lower end of the support *l* of the turn-table to turn upon, and also to protect the pump-rod, which passes through it. The turn-table *d*, instead of being secured upon the top of the mast in the usual manner, is pivoted entirely to one side of it, and is upheld at its outside by the support *l*, of which the lower end extends down to the collar *c*, around the upper part of which it loosely clasps. Pivoted to the beam or frame *e* of the tail-vane is the small vertical vane *g*, which is connected to the outer edge of the turn-table by means of the rod *h*, so that when the wind blows violently the vane *g* is forced backward, so as to draw the turn-table and wheel around toward the tail-vane, out of the wind. To the lower end of the vertical vane is attached a suitable weight or spring, by means of which the vane is again drawn back to a vertical position as soon as the wind moderates. As the vane is raised upward by the weight it forces the turn-table around again away from the tail-vane until the table strikes against the stop *i* on the front of the mast.

Having thus described my invention, I claim—

1. The yielding turn-table *d*, pivoted to one side of the mast and upheld at its outer side by a support, *l*, substantially as shown.

2. The combination of the yielding turn-table, support *l*, rod *h*, vertical vane *g*, tail-vane and mast, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of March, 1875.

SAMUEL M. ABBOTT.

Witnesses:
JAMES L. YOUNG,
C. L. PUTMAN.