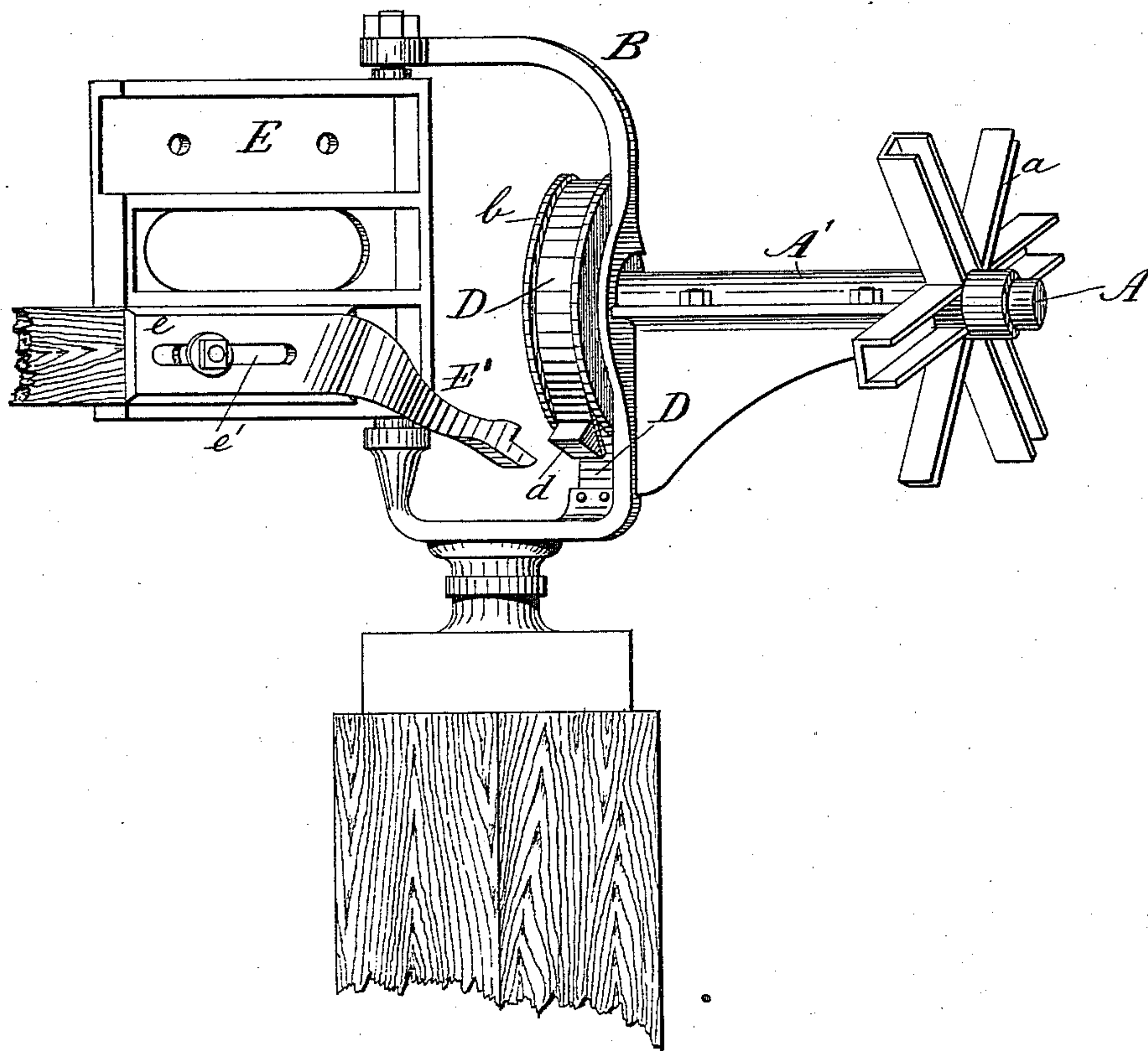


(No Model.)

J. THOMPSON.  
BRAKE FOR WINDMILLS.

No. 379,342.

Patented Mar. 13, 1888.



WITNESSES:

*D. C. Reusch.*  
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# UNITED STATES PATENT OFFICE.

JOHN THOMPSON, OF HOLLAND, MICHIGAN.

## BRAKE FOR WINDMILLS.

SPECIFICATION forming part of Letters Patent No. 379,342, dated March 13, 1888.

Application filed June 15, 1887. Serial No. 241,361. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN THOMPSON, of Holland, in the county of Ottawa and State of Michigan, have invented a new and useful Improvement in Brakes for Windmills, of which the following is a full, clear, and exact description.

My invention relates to a brake for windmills, and has for its object to provide a means whereby when the vane is thrown out of the wind the brake will be automatically applied to the wheel, holding the same motionless.

The invention consists in the construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawing, forming a part of this specification, in which the figure of the drawing illustrates the application of my improvement to a windmill.

In carrying the invention into effect, A represents the wheel-shaft adapted to revolve in bearings A', forming a portion of the frame B. To the outer end of the said shaft A the hub *a* of the ordinary wind-wheel is keyed, and upon the inner end of said shaft a grooved wheel, *b*, is secured, through which wheel motion is communicated to the operating mechanism of the mill.

Beneath the wheel *b*, in alignment therewith, one end of a flat metal spring, D, is secured to the frame B, which spring is normally bent to the contour of said wheel, and is adapted to partially encircle the same, being held in position a distance from the periphery by the side flanges forming the peripheral groove. The free end of the spring, which projects downward near the lower portion of the frame, is provided with a lug, *d*.

To the lower portion of the vane casting E the horizontal body *e* of a downwardly and inwardly curved arm, E', is adjustably secured by means of a bolt passing through said vane-casting, and also through a longitudinal slot, *e'*, in the body *e*. Thus when the vane is carried out of the wind by any well-known or approved means the projecting end of the arm E', coming in contact with the lugged end of the spring, presses the same down in close contact with the wheel *b*, whereby the revolution of the shaft A is stopped and the wind-wheel prevented from turning until the vane is again thrown in the wind.

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

1. The combination, with the shaft of the wind-wheel, a wheel carried upon the inner end of said shaft, and a band arranged in connection with said wheel, of a curved and outwardly projecting arm adjustably secured to the vane and adapted to engage said band, substantially as shown and described.

2. The combination, with the shaft A, having a wind-wheel secured at one end, a grooved wheel, *b*, secured upon the inner end of said shaft, and a spring, D, secured beneath said wheel, encircling the same within the groove, and a lug, *d*, integral with the free end of said spring, of the curved arm E', adjustably secured to the vane E and adapted to engage the free end of said spring, substantially as shown and described.

JOHN THOMPSON.

Witnesses:

G. VAN SCHELVEN,  
L. T. KEMTER.