

(No Model.)

F. REITER.  
WINDMILL.

No. 266,524.

Patented Oct. 24, 1882.

Fig. 2.

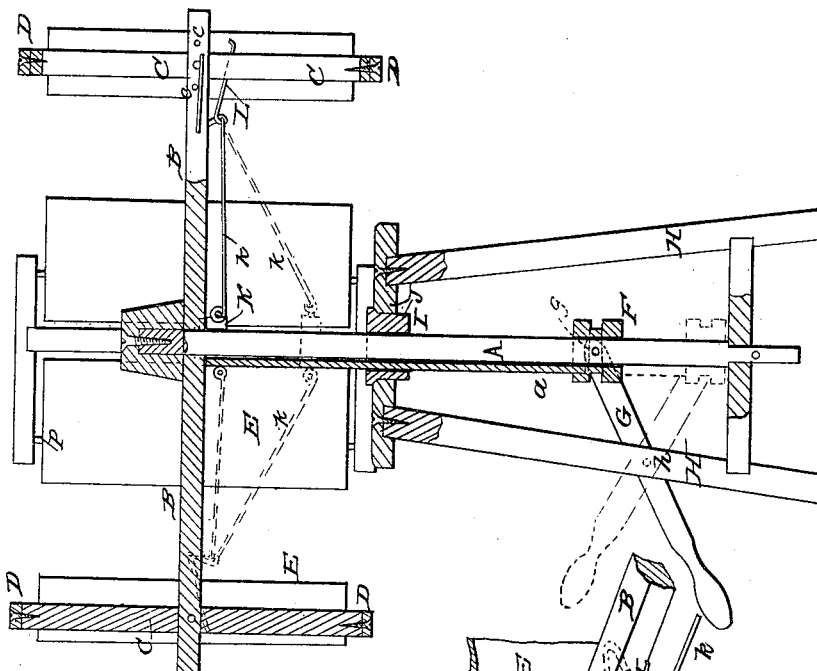
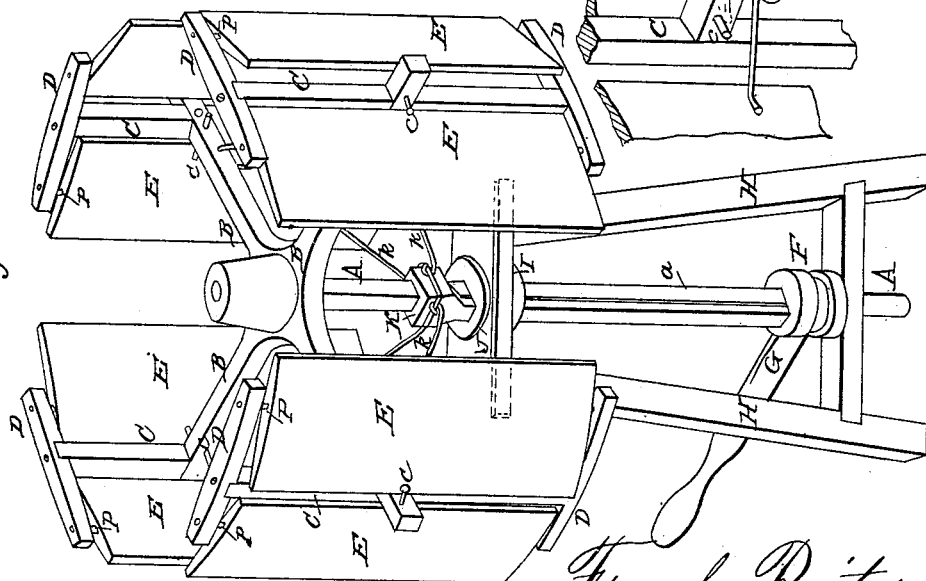


Fig. 1.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

FRANK REITER, OF WARRENSBURG, ILLINOIS.

## WINDMILL.

SPECIFICATION forming part of Letters Patent No. 266,524, dated October 24, 1882.

Application filed August 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK REITER, of Warrensburg, in the county of Macon and State of Illinois, have invented certain new and useful  
5 Improvements in Windmills; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference  
10 being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved horizontal windmill. Fig. 2 is a vertical sectional view of the same; and Fig. 3 is  
15 a detail view, showing the operation of the levers on the vanes.

Similar letters of reference indicate corresponding parts in all the figures.

My invention has relation to horizontal wind-  
20 mills or wind-wheels; and it consists in the improved construction, combination, and arrangement of parts of the same, as hereinafter more fully described and claimed.

In the accompanying drawings, the letter  
25 A represents the main shaft, upon the upper end of which are fastened four or more arms, B. These arms have the end pieces, C, fastened upon them, upon each end of which  
30 are again fastened the cross-pieces D D. Between the ends of these cross-pieces, and pivoted upon them, are the vanes E, of canvas, extended over rectangular frames of sheet metal or any other suitable material. The pivots P,  
35 on which these vanes turn, are placed nearer to one side of the vane than to the other, so that when it is placed against the wind they will stand obliquely to the wind, being prevented from turning entirely by projecting pegs or bolts *c* on the end pieces, C.

40 On the shaft A, which is square or polygonous in cross-section, slides a sleeve, F, which revolves with the shaft, and has an annular groove, into which a pin, *g*, in one end of a lever, G, projects. This lever is pivoted at *h*  
45 on the frame H of the mill. A rod, *a*, fastened

to the sleeve F, and sliding with it up and down on one side of shaft A, passes through a cylindrical bushing, I, having an aperture in its center, through which the shaft and rod *a* pass, while it rotates with the shaft in the upper bearing, J, of the frame. At the end of  
50 rod *a* is a head, K, also sliding on the shaft and rotating with it, from which extend rods *k*, pivoted to the head K at one end and pivoted to the doubled lever L at the other end.  
55

By pressing down on the free end of lever G the sleeve F, rod *a*, and head K are raised. This extends the rods *k*, which again extend the doubled levers L, which are hung with their doubled ends in arms B, while their free ends  
60 press against the vane E, bringing them to a position with their faces forming a circle around the shaft as center, in which position they will stand still, as the wind can move them only when they stand obliquely to its direction. By  
65 raising or lowering the lever the oblique position of the vanes can be changed to suit the strength of the wind in a moment of time and without stopping the mill.

Having thus described my invention, I claim  
70 and desire to secure by Letters Patent of the United States—

In a windmill of the described class, the combination of the vertical drive-shaft A, having radial arms B, provided with end pieces, C,  
75 having stop-pins *c c* and cross-heads D D, vanes E, hung in pairs between said cross-heads, doubled levers L, hung in the outer ends of arms B, rods *k*, sliding head K, having rod *a*, sliding sleeve F, and lever G, all constructed  
80 and combined to operate substantially in the manner and for the purpose herein shown and specified.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in  
85 presence of two witnesses.

FRANK REITER.

Witnesses:

EBENEZER W. MAJOR,  
R. C. KOONTZ.