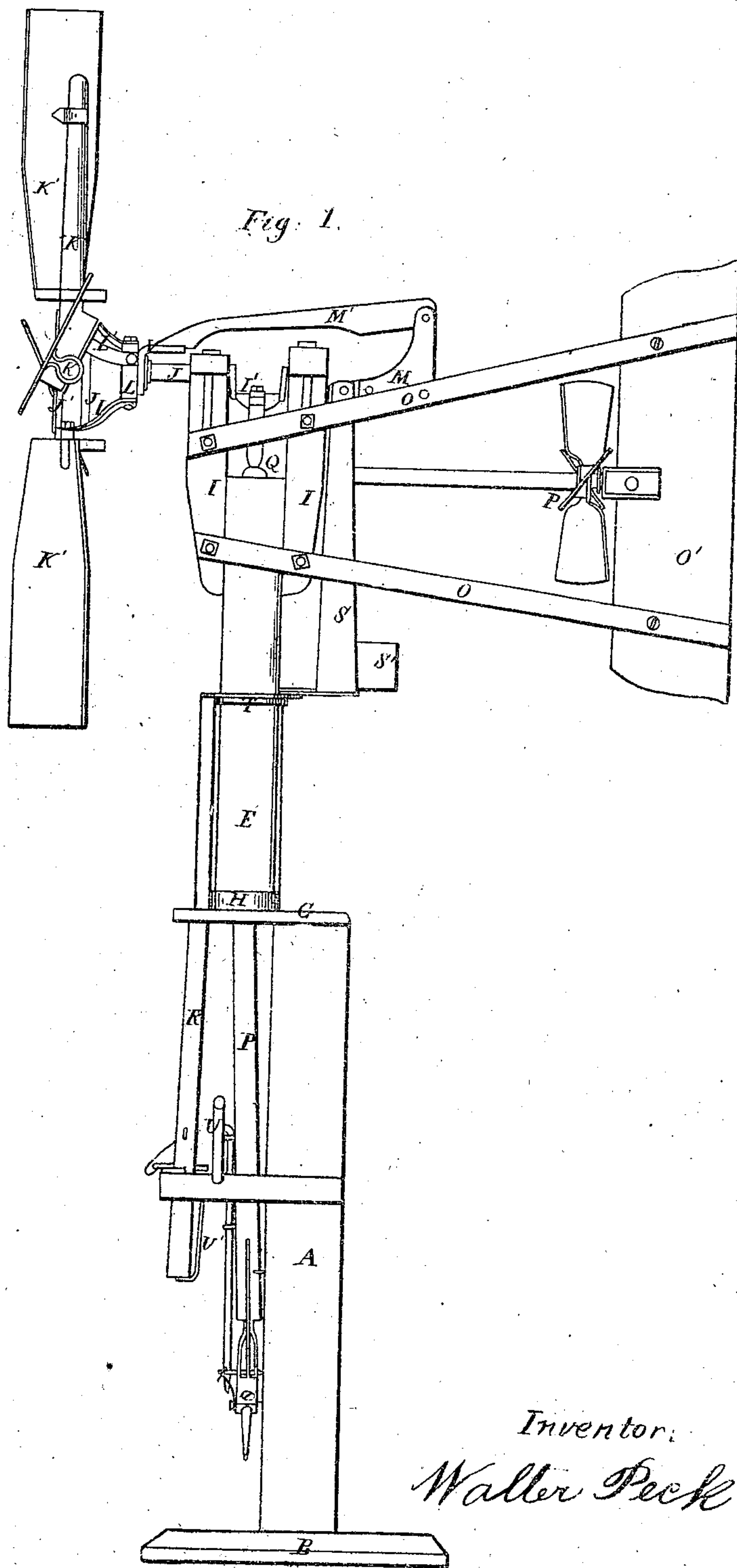


W. Peck.  
Windmill.

N<sup>o</sup> 72890

Patented Dec. 31, 1867.



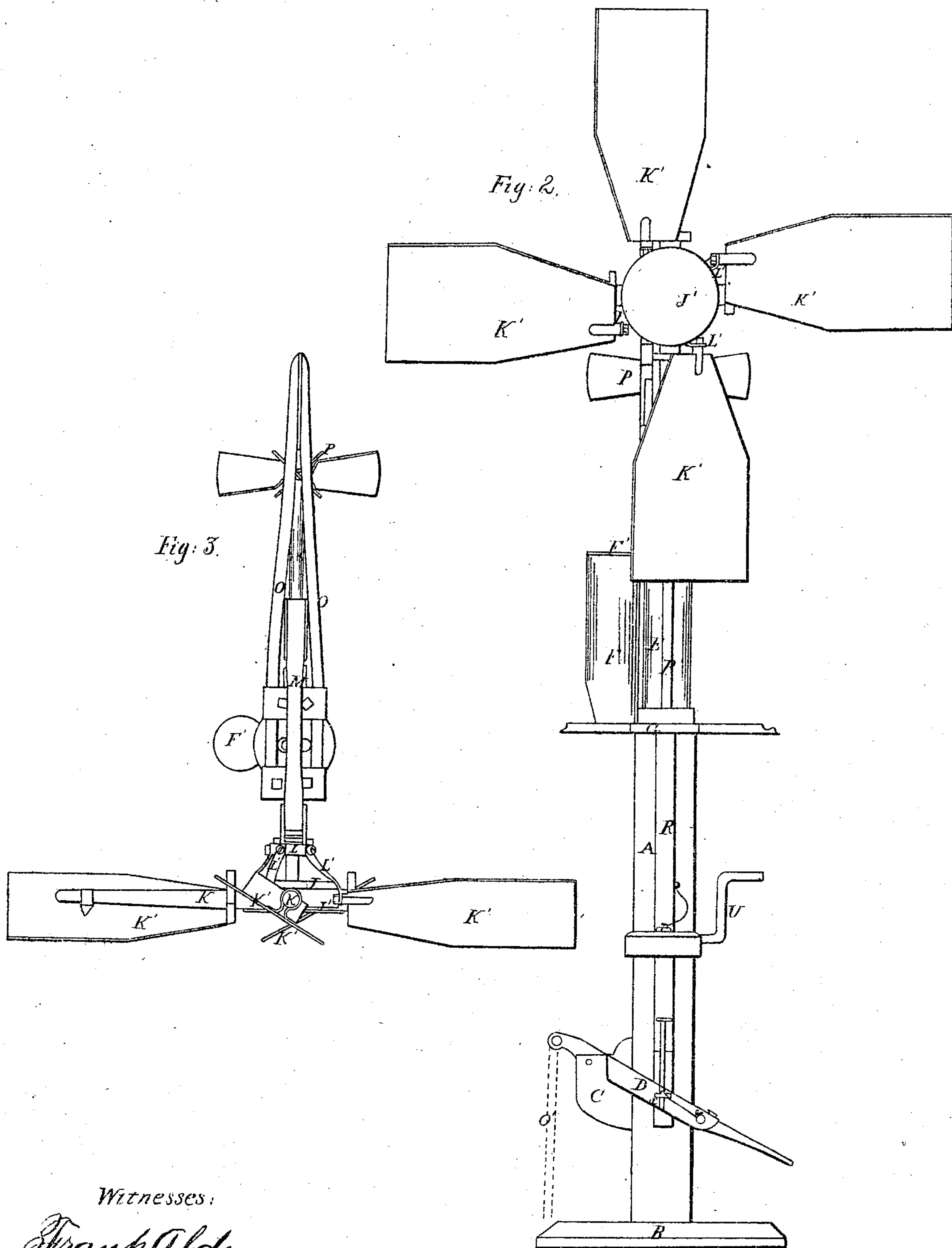
Witnesses:  
Frank Alden,  
J. Holmes,

Inventor:  
Walter Peck

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# United States Patent Office.

WALTER PECK, OF ROCKFORD, ILLINOIS.

Letters Patent No. 72,890, dated December 31, 1867; antedated December 27, 1867.

## IMPROVEMENT IN WINDMILLS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, WALTER PECK, of Rockford, in the county of Winnebago, and State of Illinois, have invented certain new and useful Improvements in Windmills; and I do hereby declare that the following is a full and complete description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a side view of the mill.

Figure 2 is a front view.

Figure 3 a top view.

Like letters of reference refer to like parts in the different views.

In fig. 1, A is a post, standing upon a platform, B, at one side of the well. To this post is pivoted the pump-handle D, between the cheeks of the stay C, fig. 2, and which is operated by the following-described machinery, viz: On the top of the post A is mounted the tubular shaft E, which is supported in a vertical position by the supplementary post F, by a collar, F', and which post is secured to a platform or arm, G. The lower end of the shaft is placed in a band or collar, H, in which it revolves, and is withheld from displacement. To the upper end of the shaft is secured a pair of arms, I, between which plies the crank I'. On the projecting end of the crank-shaft J is secured a pair of disks, J', between which the four arms K are firmly fixed, and to which arms are loosely hung the wings or sails K'. On the shaft J is an adjustable collar, L, which is connected to the wings by links L', and also to the angular lever M, by the links M', and yoke N which is fitted loosely to the collar L, in a groove provided for that purpose.

The vane of this mill consists of the arms O, bolted or otherwise secured to the shaft and arms I, in the direction and position shown in the drawing. O' is the sail by which the mill is veered around by the changing winds. P is a small auxiliary mill or wings, the purpose of which is to check the motion of the larger mill during strong winds, and thereby prevent accident to the mill by any accelerated motion, and which is accomplished as follows: One end of a cord or strap is attached to the shaft of the small wheel, and the other to the lower end of the link S. Now, if the wind blows hard, the rope will wind upon the shaft, and thereby lift up the link and weight, which being connected to the large wheel, by the intervention of the lever M and link M', will cause the fans to turn more or less edgewise to the wind, and thus check its speed.

Having thus far described the several parts of the mill, the operation of the same is as follows: P' is a pitman, by which the handle D, above referred to, is connected to the crank I', by a ball-and-socket joint, Q, fig. 1. As the crank is turned by the revolving arms of the mill, the handle is operated, which in turn operates the pump-rod, indicated by the dotted lines Q', fig. 2; the rapidity of the strokes being as the speed of the revolution of the mill, which may be regulated by the governor-rod R as follows: This rod is connected to a yoke, R', surrounding the tubular revolving shaft E. Upon this yoke stands the foot of the link S, the lower end of which is loaded with the weight S'. On raising up this yoke or collar, by the windlass U, to which the rod R is attached by the straps U', will push up the link S, which acting on the lower arm of the angular lever M, will throw the upper arm back, and, in so doing, will carry with it the link M', by which the lever and arms of the mill are connected, by the intervention of the adjustable collar L and links L', the effect of which will be to cause the wings or sails of the mill to present an increased surface to the wind, and thus catching more wind, the revolutions will be accelerated, and hence the pump will be worked with greater rapidity and effect. And so, on lowering the rod, the weight S', referred to, will cause a reverse action of the lever M, and thus bring the edge of the wings or sails of the mill more or less to the wind, with a corresponding retardation in their revolutions. By this means the mill can be easily regulated to run swiftly or slowly, as circumstances may demand.

Should it be required to work the pumps by hand, it is easily done by detaching the pitman from the pump-handle, by removing the pin a, fig. 2; first, however, pushing up the rod b out of the eye of the pin, which is inserted therein for the greater security of the pin. The pump thus detached is worked in the ordinary way.

This mill is well adapted for other work than that of raising water. It can be applied with success to running light machinery, sawing, churning, corn-mills, &c. It is light in its structure, and yet strongly planed and durable. It is simple in its arrangements, and free in its operations, and can be easily taken down and removed from place to place.

What I claim as my improvement, and desire to secure by Letters Patent, is—

1. The weighted link S, lever M and link M', as arranged, in combination with the adjustable collar L and links L', arms and sails K K', for the purpose and in the manner as described.
2. Windlass U, rod R and yoke R', in combination with the link S, as and for the purpose set forth.
3. In combination with the above-described mill, I claim the auxiliary mill or wings P, as and for the purpose set forth.

Witnesses:

W. J. SWITS,  
JESSE MOORE.

WALTER PECK.