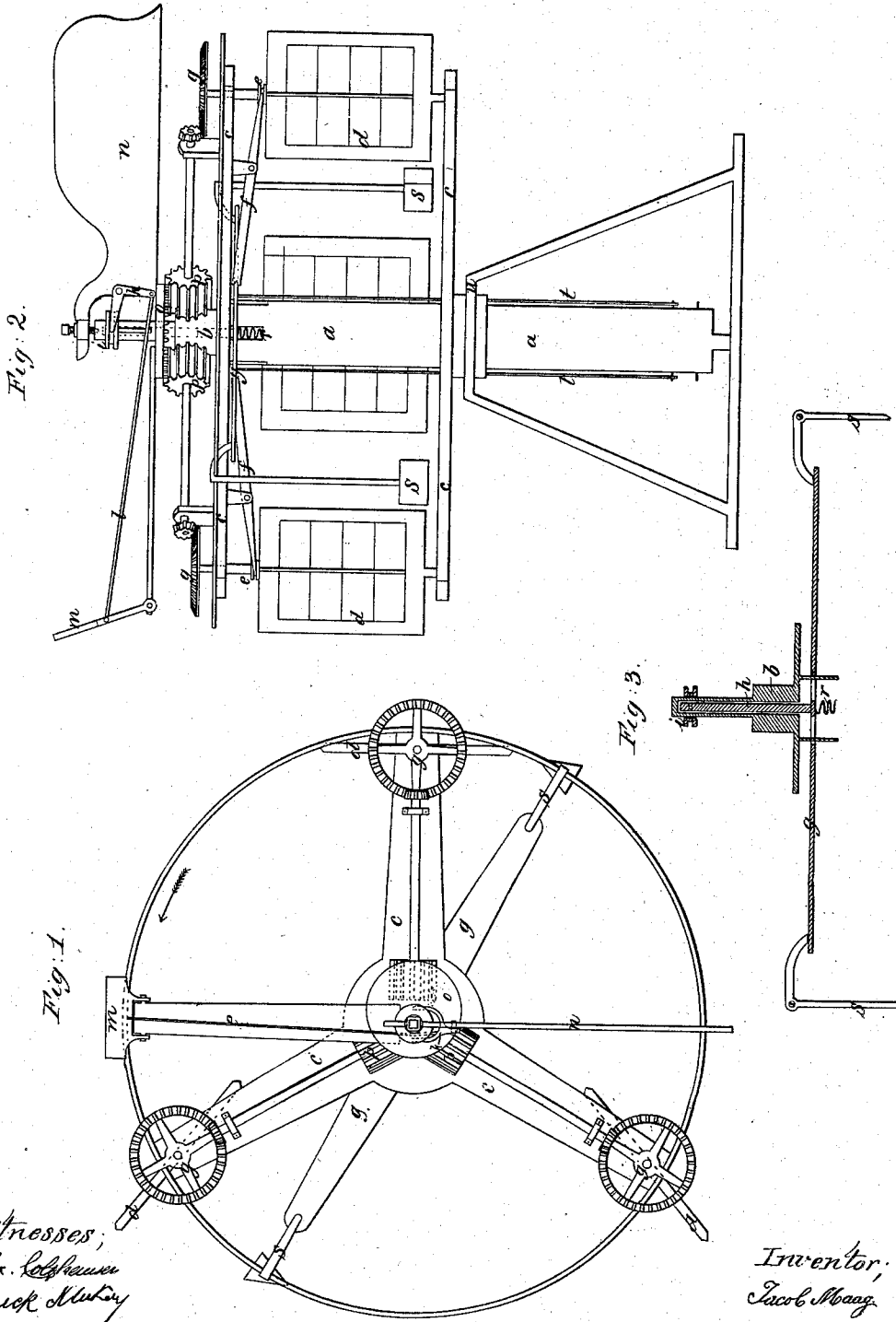


J. MAAG.
WIND WHEEL.

No. 32,428.

Patented May 28, 1861.



Witnesses,
Alex. Selphauer
Patrick Murray

Inventor,
Jacob Maag

U. S. PATENT OFFICE.

No. 1,424.

1861.

WHOLE No. 32,428.

Wind Wheel.

JACOB MAAG, OF MILWAUKIE, WIS.

Letters Patent No. 1,424, dated May 28, 1861.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known, that I, JACOB MAAG, of the city and county of Milwaukie, in the State of Wisconsin, have invented certain new and useful improvements in the construction and operation of horizontal Wind Wheels; and I do hereby declare, that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings which form part of this specification, in which—

Figure 1 is an upper view of the wheel.

Figure 2, a side view of the wheel.

Figure 3, a vertical section of the head and lever bar, with the governor rods and balls; and,

Figure 4, a view of the lever bar.

In each of these figures, where like parts are shown, like letters are made to indicate the parts.

The main shaft is marked *a*, to the upper end of which is affixed a head *b*, and at two points on the shaft are also attached radial arms *c*. Between the arms *c*, as shown by figure 2, are placed the wings *d*, the shafts of the wings being socketed so that they may be turned. A sliding collar *e* is around each shaft of the wings, and is attached to the rod of the blinds or slats of the wing. A vibrating lever *f*, by a forked end, fits upon the sliding collar *e*, and by its other end upon the lever bar *g*. A movable pin *h*, attached to the bar *g*, is placed inside of the head *b*, shown by figure 3, and is fastened at its upper end to a sliding collar *i*. The forked end of a lever *k* embraces the sliding collar *i*, the other end of the lever being joined to a connecting rod *l*, interposed between the lever and the

Maag's Improved Wind Wheel.

wind fan or storm board *m*. The tail *n* is secured to the eccentric *o*, the eccentric having teeth on its under surface into which fit the teeth of the wheels *p*. The shafts of the wheels *p* have on their outer ends bevelled pinions, which mesh into the bevelled wheels *q*, on the upper ends of the shafts of the wings. A spring *r*, placed in a recess in the shaft *a*, tends to elevate the lever bar *g*; and through the lever *f* to shut the slats or blinds of the wings. The governor balls by rods *s* are pivoted to the upper rim of the wheel; a short arm at right angles to the rod *s* rests upon the lever bar *g*, and thus operates the slats of the wings. Rods *t* are also attached to the bar *g*, so that the bar may be operated by hand and the slats thus controlled. The shaft *a* has supports *u*, in place of which friction rollers may be used. The wings being attached to the wheel, as shown and described, when struck by the wind, will move in the direction indicated by the arrow in figure 1, while the wheel is moving the tail *n*, and the eccentric *o* will remain in position subjected to the direction of the wind; through the action of the wheels *p*, the teeth of the eccentric *o*, and the bevelled wheels and pinions, the wings will make only one revolution while the wheel is making two revolutions, and the wings, that face or front the wind, will turn much quicker than those on the opposite side; chains or belts may be used for regulating the wings; any desirable number of wings may be used, and a part of them only be regulated by connection with the bevelled wheels *q*.

In a storm the board or fan *m* will be moved backwards, and by the connecting rod *l*, will operate the lever *k*, and press the sliding collar *i* and pin *h* downwards, forcing down the lever bar *g*, and, through the lever *f*, opening the blinds or slats and letting the wind pass. When the wheel is moving too rapidly, the balls of the governor being thrown outwardly, will force the short arm of the rod into the lever bar *g*, and thus, through the lever *f*, open to a greater or less degree the blinds or slats of the wings.

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

1st. The eccentric *o*, in combination with the fan or storm-board *m*, and the toothed and bevelled wheels, as herein set forth, for giving motion to the wings, as described.

2nd. I claim the lever bar *g*, as it is arranged in relation to the governor and to the means or parts operated by the storm-board or fan, and to the wings, as set forth.

JACOB MAAG.

Witnesses:

ALEXANDER COTZHAUSEN,
HERRMANN SCHREIBER.