

(No Model.)

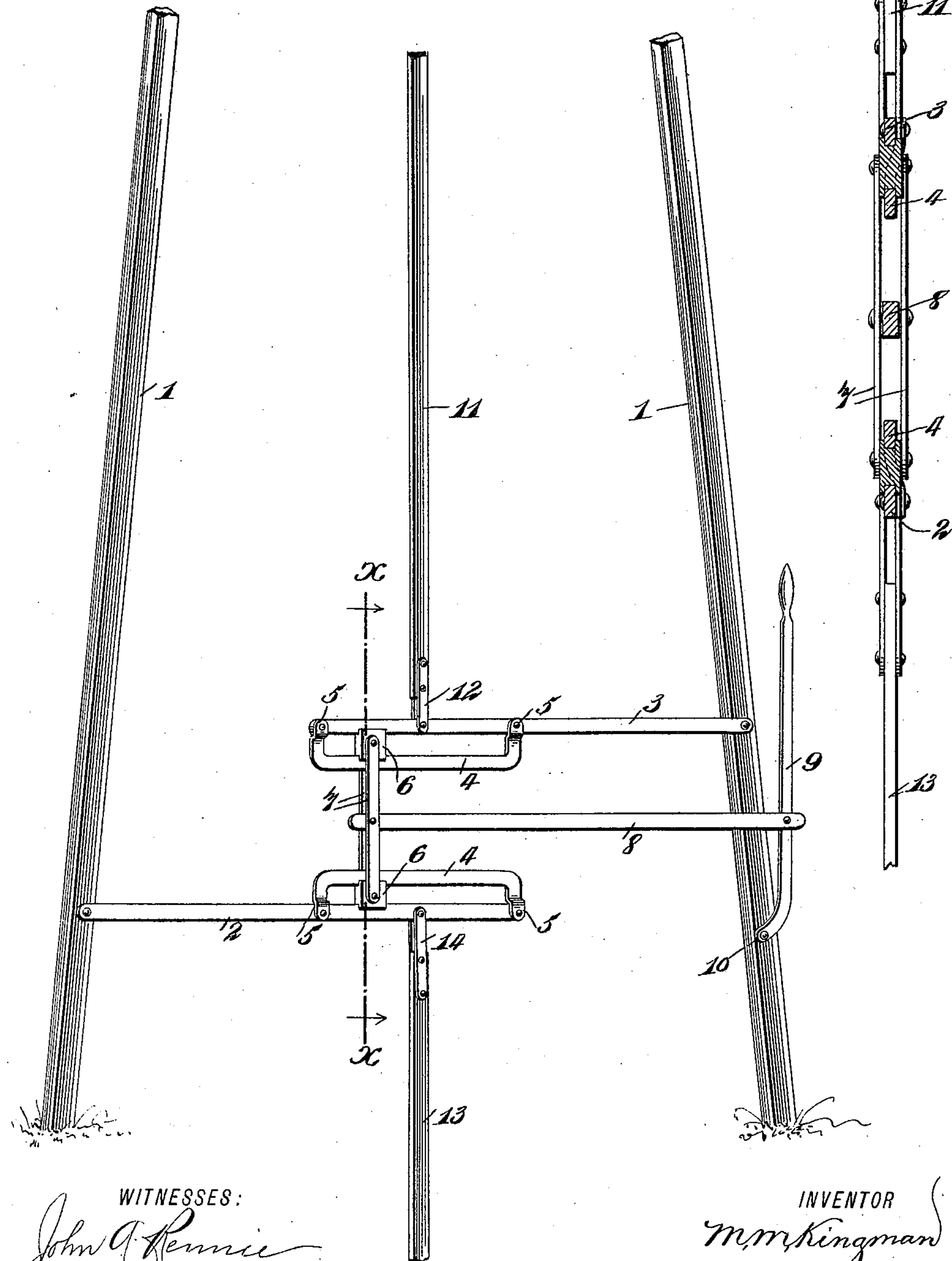
M. M. KINGMAN.  
WINDMILL ATTACHMENT.

No. 564,085.

Patented July 14, 1896.

Fig. 1.

Fig. 2.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

MORRISON M. KINGMAN, OF CHELAN, WASHINGTON.

## WINDMILL ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 564,085, dated July 14, 1896.

Application filed September 10, 1895. Serial No. 562,075. (No model.)

*To all whom it may concern:*

Be it known that I, MORRISON M. KINGMAN, of Chelan, in the county of Okanogan and State of Washington, have invented a new and Improved Windmill Attachment, of which the following is a full, clear, and exact description.

The object of this invention is to provide a device by which the stroke of the pump-rod of windmills may be varied, so that the pump will be operated uniformly, notwithstanding the variations in the operation of the windmill-pitman.

To this end the invention consists in two levers forming guideways and fulcrumed one at each side of the windmill-frame and respectively connected to the pump-rod and to the pitman and having slidably between them a bracket capable of movement to and beyond each side of the pitman and pump-rod, and by this movement the motion transmitted between these two parts may be increased or diminished, thereby varying the stroke of the pump-rod.

The invention will be more fully described hereinafter, and finally embodied in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 represents a side elevation of a portion of a windmill-frame having my improvements applied thereto, and Fig. 2 is a section on the line X X of Fig. 1.

The frame 1 is provided with two levers 2 and 3, which are respectively fulcrumed at the right and left hand sides of the frame, and each of which is provided with parallel track-plates 4, the said plates being located, respectively, on the upper and lower sides of the levers and having transversely-bent ends 5, which are respectively riveted or otherwise rigidly secured to the levers. These plates 4 form guideways or tracks in which the blocks 6 are reciprocally mounted, and the blocks are grooved to receive the levers 2 and 3 and the plates 4 and have pivotally connected to them two plates 7, which lie one on each side of the blocks. The blocks 6 and the

plates 7 comprise the hereinbefore-referred-to bracket of my device.

Pivotally connected between the plates 7 is a link 8, which is extended to the right side of the frame and has a vertically-extending lever 9 pivotally connected thereto, the lever being in turn fulcrumed to the right-hand side of the frame at the point 10.

The pitman 11 has its lower end pivotally connected to the lever 3 at a point midway the length of the plate 4 and through the medium of the straps 12, while the pump-rod 13 has its upper end pivotally connected to the lever 2 also at a point midway the length of the plate 4 and through the medium of the straps 14. It will be seen, therefore, that the reciprocations of the pitman 11 are first communicated to the lever 3, which swings on its fulcrum, and in swinging communicates a reciprocal movement to the plates 7, which movement is in turn imparted to the lever 2, and by the swinging of this lever the pump-rod 13 is reciprocated. When now the bracket composed of the plates 7 and blocks 6 is moved to the left of the pitman 11 and pump-rod 13, movement will be multiplied in its transmission from the pitman 11 to the pump-rod 13. On the other hand, if the bracket is moved in the opposite direction and to the right from the pitman and pump-rod, motion will be lost in its transmission from the two parts and the stroke of the rod 13 decreased.

It will be understood that the lever 9 is provided to move the bracket, and that by means of my invention the varying movement of the pitman 11 may be controlled and the rod 13 caused to operate with desired regularity.

It will also be recognized that the levers 2 and 3 are, broadly, pivoted guideways for the ends of the brackets.

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

1. The combination with a frame, of two reciprocative parts, two levers fulcrumed to opposite sides of the frame and respectively pivoted to the said parts, and a bracket connecting the levers and capable of longitudinal



nal adjustment on the same, substantially as described.

2. The combination with a frame, of a lever pivoted to each side of the frame, two  
5 reciprocative parts respectively connected with the levers, a bracket connected with the levers and for transmitting movement from one to the other, an operating-lever fulcrumed on the frame, and a link pivotally connecting  
10 the bracket and operating-lever, substantially as described.

3. The combination with two reciprocative parts, of two levers pivotally connected one to each part, a track-plate secured parallel  
15 with each lever, a block slidable between

each track-plate and its corresponding lever, and a plate pivotally connected to each block, substantially as described.

4. The combination of two reciprocative parts, a pivoted guideway connected to each  
20 part, the pivots of the guideways being respectively on different sides of the reciprocative parts, and a bracket movable in the guideways and beyond the outer side of each reciprocative part, substantially as described. 25

MORRISON M. KINGMAN.

Witnesses:

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