

No. 724,914.

PATENTED APR. 7, 1903.

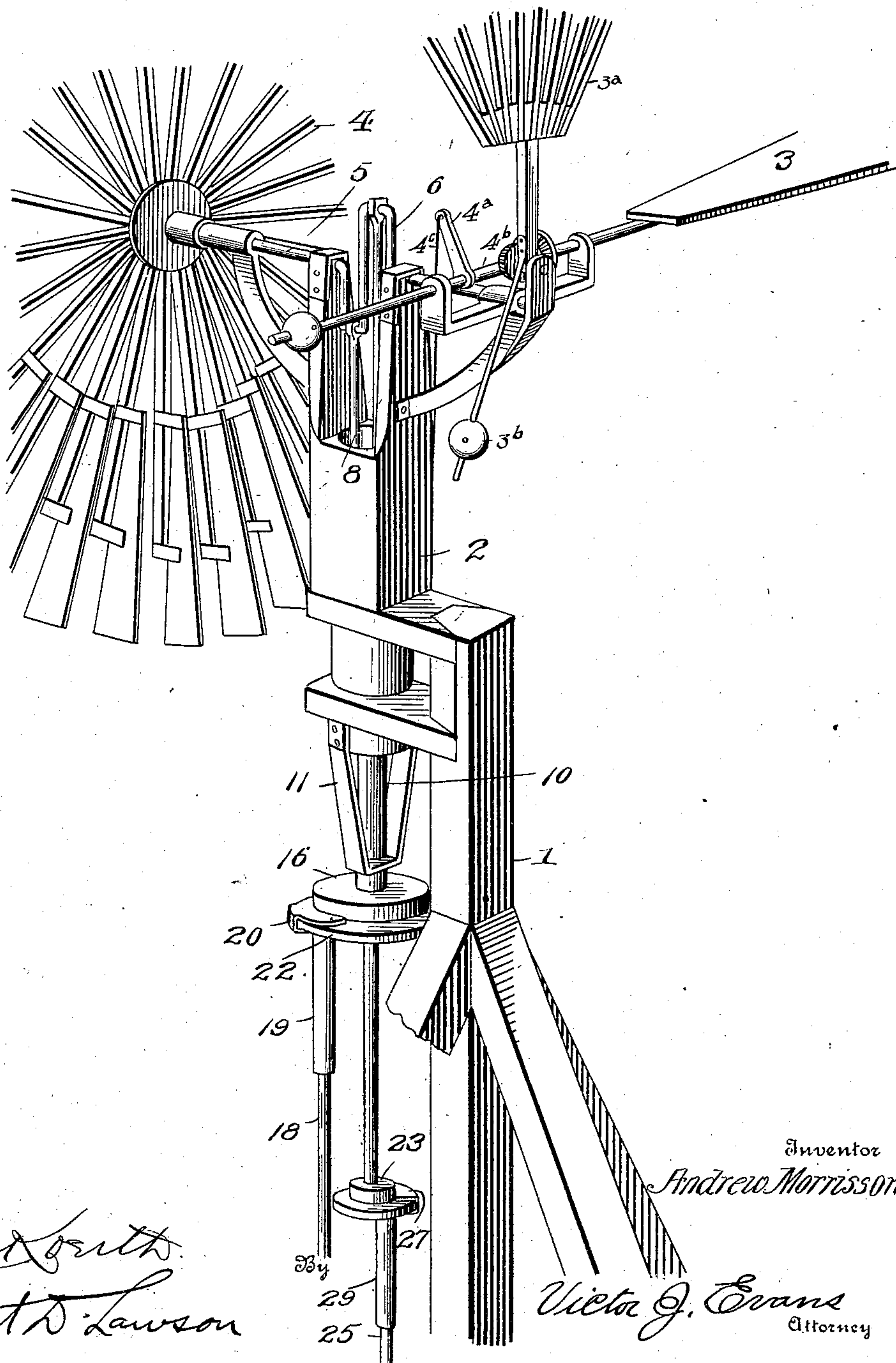
A. MORRISSON.
WINDMILL.

APPLICATION FILED NOV. 25, 1902.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses
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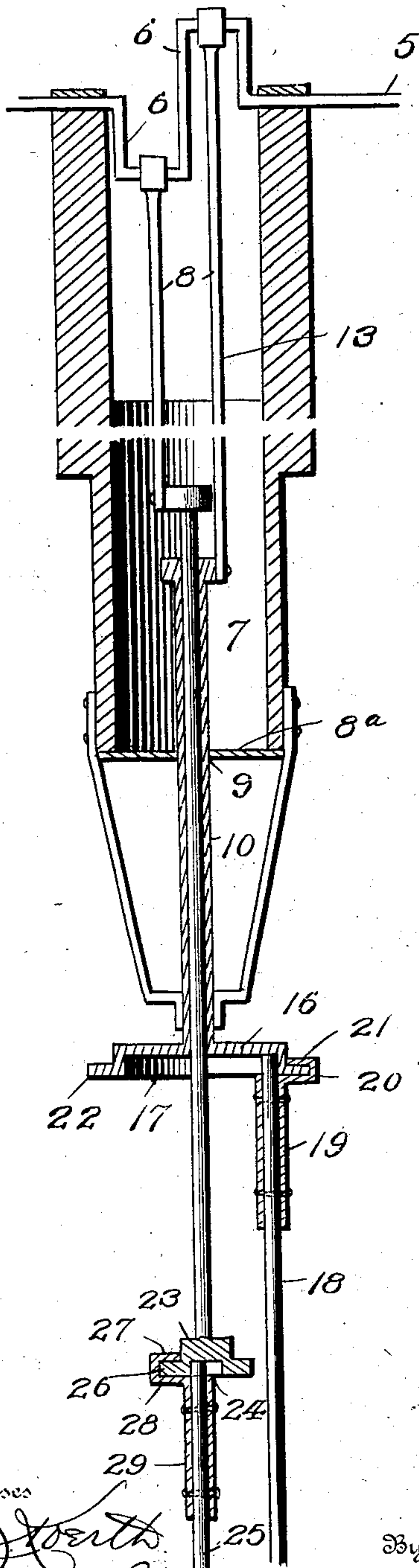
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NO MODEL.

2 SHEETS—SHEET 2.

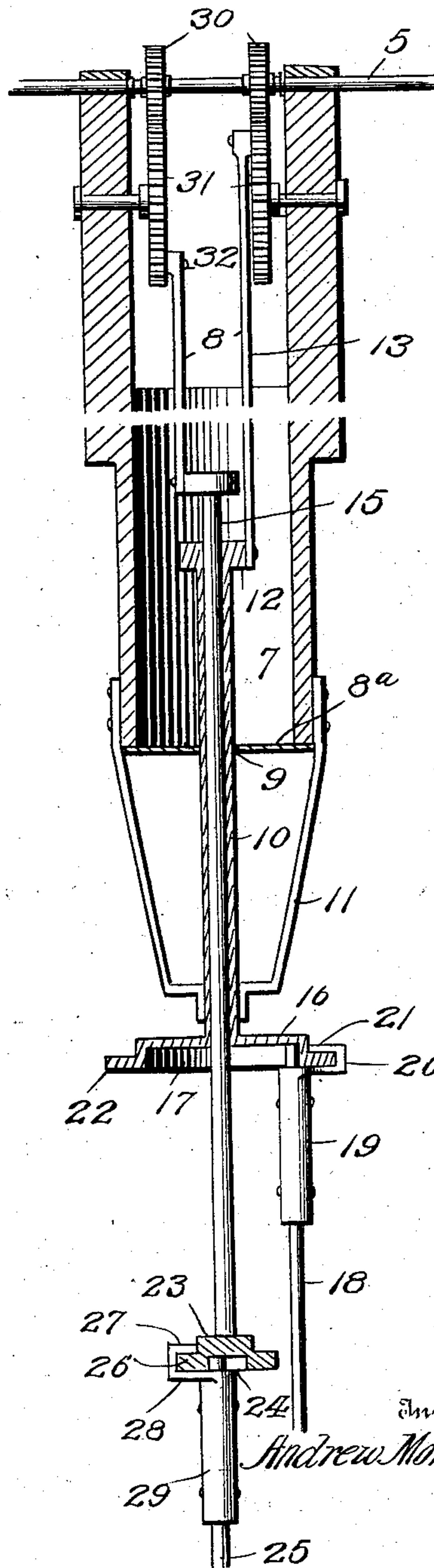
Fig. 2.



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Fig. 3.



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UNITED STATES PATENT OFFICE.

ANDREW MORRISSON, OF COLEMAN, TEXAS.

WINDMILL.

SPECIFICATION forming part of Letters Patent No. 724,914, dated April 7, 1903.

Application filed November 25, 1902. Serial No. 132,769. (No model.)

To all whom it may concern:

Be it known that I, ANDREW MORRISSON, a citizen of the United States, residing at Coleman, in the county of Coleman and State of Texas, have invented new and useful Improvements in Windmills, of which the following is a specification.

My invention relates to new and useful improvements in windmills, and more particularly to the mechanism for transmitting motion from the wheel-shaft to the pump-rods.

Objects of the invention are to provide means whereby a double stroke of the rods may be obtained during one revolution of the shaft and to employ a novel connection between said rods and the shaft.

With the above and other objects in view the invention consists in the novel construction and combination of parts hereinafter more fully described and claimed, and illustrated in the accompanying drawings, showing the preferred form of my invention, and in which—

Figure 1 is a perspective view of a portion of a windmill embodying my improvements. Fig. 2 is an enlarged section through the mill-head, showing the connections between the shaft and pump-rods; and Fig. 3 is a similar view of a modification, one of the connecting-sleeves being shown in elevation.

Referring to the figures by numerals of reference, 1 is a derrick of suitable construction, upon which is pivotally mounted a mill-head 2, having a vane 3 and a wind-wheel 4 thereon. An auxiliary vane 3^a, having a weight 3^b connected thereto, is arranged upon the head 2, and the same, together with vane 3, is adapted to be operated by a lever 4^a, mounted upon the shaft 4^b of vane 3. A cord 4^c extends from the lever, whereby the same may be moved by a person at the base of the derrick. The shaft 5 of this wheel is preferably provided with two oppositely-extending cranks 6, arranged above the vertical passage 7, formed in the head 2, and each connected to a pitman 8. The bottom of the passage 7 is closed by a disk 8^a, having a central aperture 9, within which is slidably mounted a tube 10, held in a vertical position by a pendant 11, within which the tube is mounted. A flange 12 is formed at the upper end of this tube, and it is connected to one crank 6 by a

pitman 13. The other crank on shaft 5 is connected by a pitman 8 to a head 14, formed at the upper end of a rod 15, and this rod is slidably mounted within and extends through the sleeve 10.

A disk 16 is arranged at the lower end of tube 10 and provided in its lower face with a circular recess 17. This recess is adapted to receive the upper end of a pump-rod 18, and the rod is held in position therein by means of a sleeve 19, bolted or otherwise secured thereto. The sleeve is secured to the rod at a distance from the end thereof equal to the depth of recess 17, and an L-shaped arm 20 extends laterally from the end of the sleeve and is formed integral with the plate 21, which extends over and is slidably mounted upon a flange 22, inclosing the disk 16. This arm 20 serves to hold the end of the rod 18 at all times within the recess 17 and at the same time permits the disk to revolve without necessarily moving the rod 18 out of vertical position. A similar but smaller disk 23 is formed at the lower end of the rod 15, and this is also provided with a recess 24 in its lower face, which receives the end of a second pump-rod 25. The flange 26, inclosing the disk 23, projects under a plate 27, similar to but smaller than the plate 21 and formed integral with an L-shaped arm 28, projecting laterally from a sleeve 29, detachably secured to the rod 25.

In Fig. 3 I have shown a modified form of mechanism for transmitting motion from the wheel-shaft to the pump-rods. In this modification I have substituted gear-wheels for the cranks 6. Two gears 30 are secured to the shaft 5 and mesh with larger gears 31, each of which is provided upon its inner face with a wrist-pin 32, engaging one of the pitmen 8. These pins are arranged so as to lower the pitmen alternately. By this construction of windmill it will be seen that one downward stroke of each pump-rod, or, in other words, a total of two downward strokes, is secured during each revolution of the wheel-shaft 5; also, as the mill-head revolves upon the derrick 1 the pump-rods will remain in their ordinary upright positions, while the disks 16 and 27 revolve within the arms of the sleeves connected thereto. As these sleeves are detachably secured to the rods, said rods can be quickly placed in po-

sition within the disks, where they are securely held throughout the operation of the mill.

In the foregoing description I have shown
5 the preferred form of my invention; but I do not limit myself thereto, as I am aware that modifications may be made therein without departing from the spirit or sacrificing the advantages thereof, and I therefore reserve
10 the right to make such changes as fall within the scope of my invention.

Having thus described the invention, what is claimed as new is—

1. In a windmill, the combination with a
15 reciprocating rod and means for imparting motion thereto, of a recessed disk at one end thereof, a flange inclosing said disk, a pump-rod extending into the recess, a sleeve upon said rod, an arm thereto extending below the

flange and a plate on the arm overlapping 20 said flange, whereby the rod is secured within the disk but said disk is permitted to rotate.

2. In a windmill, the combination with a tube and a rod extending through and slid- 25 ably mounted within said tube; of a recessed disk at the lower end of both the tube and the rod, a flange inclosing each disk, a pump-rod extending into the recess of each disk, and means upon each rod for engaging the 30 flange of its disk, but permitting rotation of said disk.

In testimony whereof I affix my signature in presence of two witnesses.

ANDREW MORRISSON.

Witnesses:

J. E. LEWIS,

JNO. E. BROWN.