J. W. TAYLOR.

PUMP OPERATING ELEMENT FOR WIND WHEELS.

APPLICATION FILED AUG. 3, 1914.

1,177,064. Patented Mar. 28, 1916.

Fig. 1.

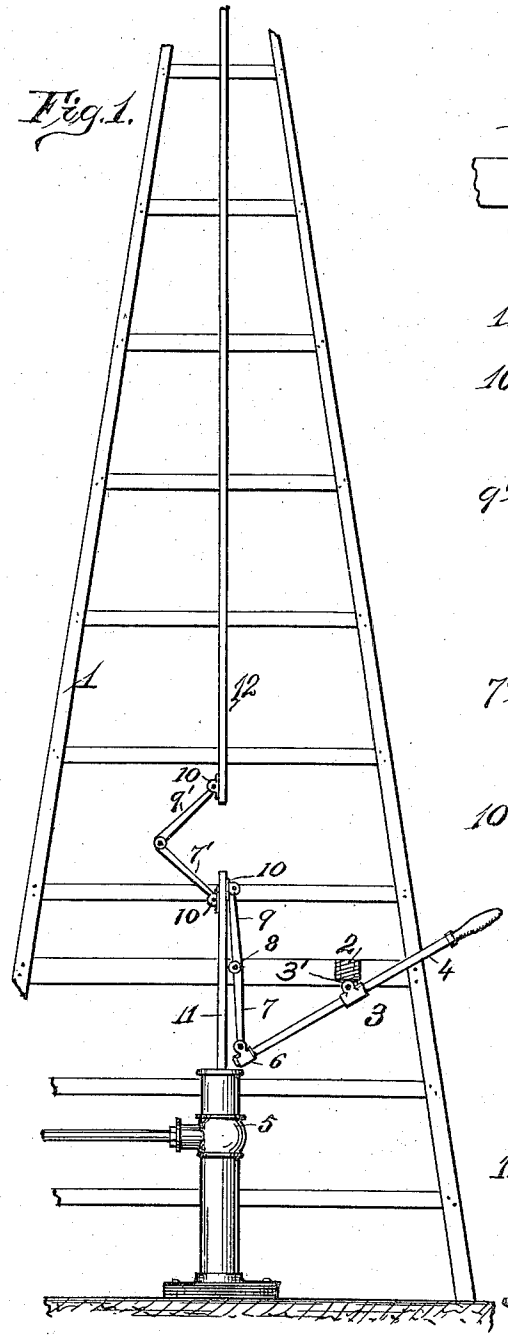


Fig. 3.

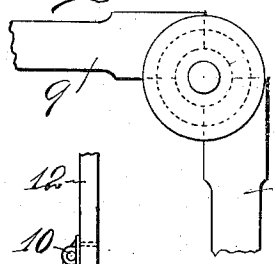
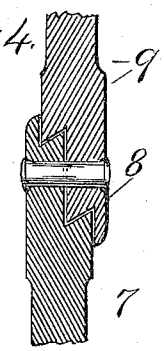


Fig. 4.



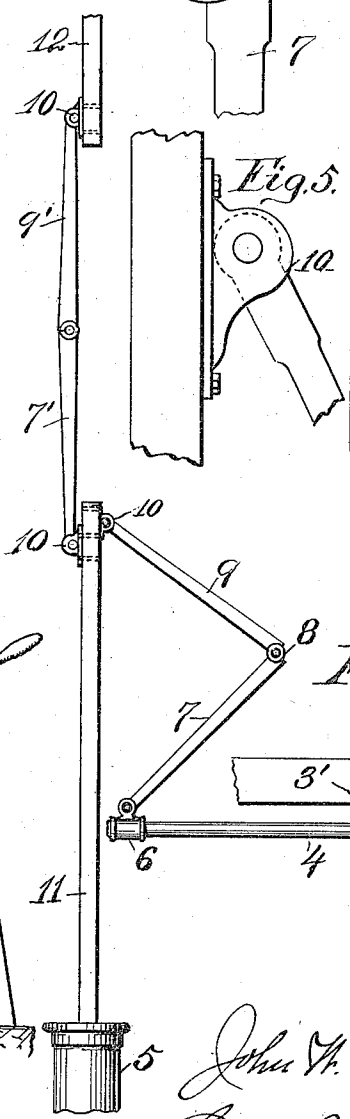


Fig. 5.

Fig. 6.

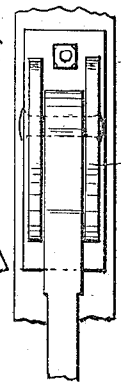
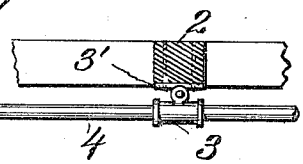


Fig. 2.



Witnesses

J. T. Walker.

Jas. N. Blackwood

Inventor

John W. Taylor

By Eugene W. Johnson

Attorney

UNITED STATES PATENT OFFICE.

JOHN W. TAYLOR, OF PLAINVIEW, TEXAS.

PUMP-OPERATING ELEMENT FOR WIND-WHEELS.

1,177,064. Specification of Letters Patent. Patented Mar. 28, 1916.

Application filed August 3, 1914. Serial No. 854,765.

To all whom it may concern:

Be it known that I, JOHN W. TAYLOR, a citizen of the United States of America, residing at Plainview, in the county of Hale and State of Texas, have invented new and useful Improvements in Pump-Operating Elements for Wind-Wheels, of which the following is a specification.

This invention relates more particularly to improvements in pump operating means, the object being to provide an operating device for pump-rods, or other mechanism which may be actuated by a reciprocatory bar or rod, the pump-rod being connected to an oscillatory member for actuating the same, the means for reciprocating the pump-rod from either driving member being so constructed that one of the actuating members associated with the pump-rod may be idle when the other actuating member is used as a drive.

A further object of my invention is to provide a pump-rod operating device in which the pump-rod and a wind-wheel-rod are connected by a toggle-joint, the pump-rod being also connected by another toggle-joint with a pump handle, so that the pump-rod may be reciprocated by either the reciprocatory wind-wheel-rod or by the oscillatory pump-handle without transmitting motion from one drive to the other.

In the accompanying drawings which show a preferred form of my invention, Figure 1, is a side elevation of a wind-wheel tower showing a pump-handle operatively connected to the pump-rod, and the wind-wheel-rod being inoperatively connected to said pump-rod. Fig. 2, is a side elevation which shows the pump-handle inoperatively associated with the pump-rod, and the wind-wheel-rod connected to drive the pump-rod. Fig. 3, is a side elevation of the rule-joint of the toggle bars. Fig. 4, is a sectional view of the rule-joint. Fig. 5, is a side elevation of a fixture for connecting the arms of the toggle to the wind-wheel-rod and to the pump-rod, and Fig. 6, is a plan view of the fixture shown by Fig. 5.

The wind-wheel tower 1, may be of any suitable construction the same having attached to its frame a suitably located cross timber 2, which carries a fixture 3 to which is pivotally connected a fixture on the pump handle 4, the fixtures 3 and 3′ providing means for maintaining the pump handle in oscillatory engagement with the support or timber 2. The end of the pump handle nearest to the pump 5, carries a suitable fixture 6 to which is pivotally attached a member or bar 7 such bar being connected with the member or bar 9 by a rule or elbow joint 8, the upper end of the bar 9 being attached by a fixture 10 to the upper end of the pump-rod 11. The rod 12 of the wind-wheel is connected to the opposite side of the pump rod by a similar connection to that which connects the pump rod to the pump handle, and as shown the connection between the rod 12 of the wind-wheel comprises fixtures 10, 10, members or bars 7′ and 9′ which are connected by the rule or elbow joint 8′, the details of construction of the joints 8 and 8′ and of the fixtures 10 being fully shown by the detail views Figs. 3 to 6 inclusive.

In practice by positioning both of the members of the toggle joints out of line the pump rod will be put out of operative engagement with both the pump handle and the rod of the wind-wheel, and when it is desired to reciprocate the pump rod from the wind wheel-rod 12, the members 9′ and 7′ are placed in alinement so that the shoulders of the knuckle joint will engage, and when so positioned the reciprocating motion of the wind-wheel-rod 12 will be transmitted to the pump rod without actuating the pump-handle. When it is desired to actuate or reciprocate the pump-rod without imparting movement to the wind-wheel-rod 12, the toggle joints are positioned as shown by Fig. 1. It will be noted that the alined pump-rod and wind-wheel-rod have between them a clearance space which is in excess of the stroke of either of the rods.

The use of two toggle joints to connect the two driving elements enable me to use the wind-wheel without operating the pump or to operate the pump without oscillating its handle, thereby avoiding danger of a person or animal being struck by the moving handle.

I am aware that it has been proposed to connect a wind-wheel-rod to a pump-rod by a toggle joint in order that the wind-wheel might be disconnected as to its drive from the pump-rod, but I am not aware that means have been used whereby both the wind-wheel-rod and the pump-rod may be placed in non-operative engagement with the pump-rod and so that either one of the

drives may be placed in operative position and the other drive placed out of operative position.

I claim.

1. In a device of the character described, a pair of longitudinally movable rods maintained in alinement one with the other, a pair of links which are connected by a knuckle joint one of the links being pivotally connected to one of the rods and the other link pivotally with the other rod, the links being adapted to be placed in alinement to separate the ends of the rods and to maintain them connected for reciprocation, an oscillating actuating means, a second pair of links which are connected by a knuckle joint one of the links of said pair being connected to one of the rods and the other to the oscillatory actuating means.

2. In a device of the character set forth, a pair of alined rods each mounted for reciprocation, a toggle-joint connecting the rods both operatively or inoperatively, an oscillating actuating means, a second toggle-joint connected to one of the rods and to the actuating element which is mounted for oscillation and connected to said second toggle-joint being adapted to be positioned operatively or inoperatively with respect to the oscillatory actuating element.

JOHN W. TAYLOR.

Witnesses:
JOHN CHATHAM,
W. C. FYFFE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."