J. DENIS & R. CLICK.

PUMP ROD COUPLING.

APPLICATION FILED AUG. 20, 1909.

949,222. Patented Feb. 15, 1910.

Fig. 1.

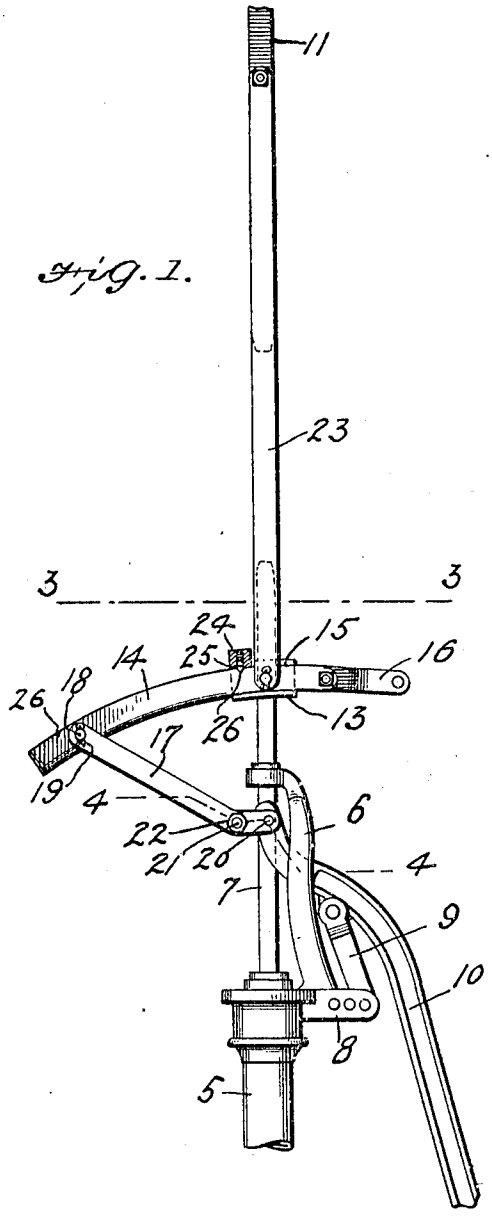


Fig. 2.

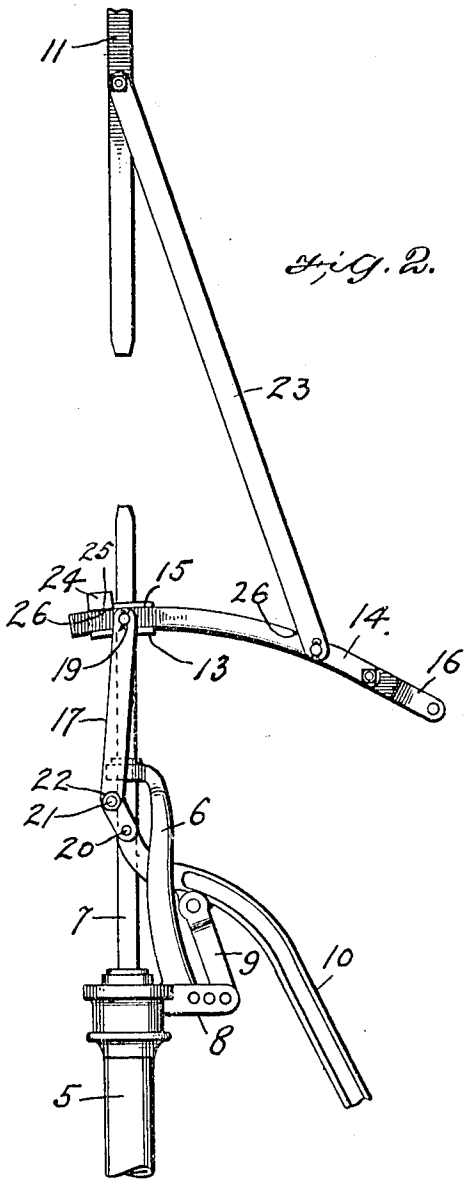
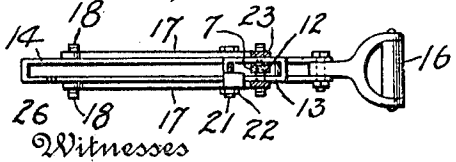


Fig. 3.



Witnesses

H. C. Barry

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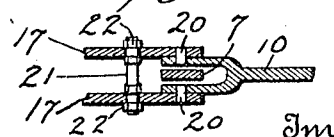
Fig. 4.



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UNITED STATES PATENT OFFICE.

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PUMP-ROD COUPLING.

949,222. Specification of Letters Patent. **Patented Feb. 15, 1910.**

Application filed August 20, 1909. Serial No. 513,865.

To all whom it may concern:

Be it known that we, JOHN DENIS and ROBERT CLICK, citizens of the United States, residing at Little Falls, in the county of Morrison and State of Minnesota, have invented certain new and useful Improvements in Pump-Rod Couplings, of which the following is a specification.

This invention relates to that class of couplings for windmill pumps, by which the pump rod may be operated by the windmill, or by hand.

It is the object of the present invention to provide a coupling of the kind stated, which is simple in structure, and which can be readily applied to any ordinary windmill pump.

Another object is to provide a coupling device which can be readily shifted, or adjusted, to change the pump from a windmill-operated one, to a hand-operated one, and vice versa.

With these objects in view, the invention consists in a novel construction and arrangement of parts to be hereinafter described and claimed, reference being had to the drawing hereto annexed, in which—

Figures 1 and 2 are elevations showing the coupling in different positions. Fig. 3 is a plan view of the coupling. Fig. 4 is a detail of the connection between the coupling and the pump rod.

In the drawing, 5 denotes a pump of the usual, or any preferred construction, provided with a standard 6 having a guide opening in which the upper end of the pump rod 7 works. At the top of the pump is a bracket 8 to which is pivoted the fulcrum link 9 of the pump handle 10, the latter not being connected to the pump rod, but having a forked end for loosely straddling the same. The pitman of the windmill is shown at 11.

On the pump rod 7 is pivoted, by means of a pin 12, a block 13, the latter having an opening which is vertically disposed to receive the pump rod, the pin passing through the block and the rod. The block 13 is straddled by a forked link 14, there being grooves 15 in opposite sides of the block, in which the branches of the link fit. The link extends transversely of the pump rod 7, and is laterally adjustable relatively thereto, it being slidably mounted in the grooves of the block. To one end of the link is connected a handle 16.

The link 14 is connected at its ends to the pitman 11 and the handle 10, respectively. The connection with the handle is made by means of a pair of links 17 connected at one end to the link 14, and at their other ends to the handle. On the branches of the link 14 are projecting pins 18 which enter apertures in the links 14, and by a cotter 19 passing through the projecting ends of the pins, the connection between the link 14 and the links 17 is made. On the inner sides of that end of the links 17 connected to the handle, are projecting pins 20 which enter apertures in opposite sides of the handle. A bolt 21 passed through the links adjacent to the pins, and fastened by nuts 22, is provided for drawing the links together sufficiently to retain the pins in the apertures. This connection enables the links to be applied to pump handles of different thicknesses. The connection between the link 14, and the pitman 11, is made by a pair of links 23, which are connected at one end to said link in the same manner as the links 17, their other ends straddling the lower end of the pitman, and being bolted or otherwise connected thereto. The links 17 and 23 extend in opposite directions, and the connections herein described are sufficiently loose so that pivot joints at the points of connections are had.

The block 13 has a socket 24, in which is mounted a spring-pressed latch pin 25, which is adapted to engage either one of a pair of notches 26 made in the upper edge of one of the branches of the link 14, for the purpose of locking said link in adjusted positions.

To couple the pitman to the pump rod, the link 14 is pushed along the block 13 toward the left until the links 23 are in alinement with the pitman and the rod. In this position of said parts, the motion of the pitman is transmitted through the links 23 to the pump rod, and the pump is therefore operated by the windmill. Fig. 1 shows the parts in this position. The latch pin 25 engages the notch 26 at the right hand end of the link 14.

If the pump is to be operated by hand, the link 14 is pulled over to the right until the links 17 extend substantially parallel to the pump rod, in which position the motion of the pump handle is transmitted by said links to the pump rod. The connections between

the several links are pivotal ones, as already described, by reason of which it will be seen that when the parts are in the last-mentioned position, the link 14 moves up and down with the pump rod, its connection with the links 23 forming a pivot which is a shifting one, by reason of the fact that said links 23 are loosely connected to the pitman, the action being similar to a toggle. With the parts in the last-mentioned position, the latch pin engages the notch 26 at the left hand end of the link 14.

In order that the windmill pitman 11 shall be inoperative when the pump is actuated as shown in Fig. 2, and also that the hand lever 10 shall be inoperative when the pump is actuated as shown in Fig. 1, the opening in the block 13 which receives the pump rod 7 is made sufficiently large to permit the block to oscillate about its pivot pin 12, the pivotal points 18 and 22 remaining relatively stationary when in their inoperative positions.

The coupling herein described is simple in structure, and can be readily applied to any ordinary windmill pump. The adjustment from one position to another can be readily made, and the invention effectually serves the purpose for which it is designed.

We claim:

1. The combination with a pump rod, its handle, and a windmill pitman; of a link connected transversely to the rod, and laterally adjustable relatively to said rod, and connections between the link, and the handle and pitman respectively.

2. The combination with a pump rod, its handle, and a windmill pitman; of a link connected transversely to the rod, and laterally adjustable relatively to said rod, and links carried by the transverse link, and extending in opposite directions, and connected respectively to the handle and the pitman.

3. The combination with a pump rod, its handle, and a windmill pitman; of a block connected to the rod, a forked link straddling the block, and laterally adjustable relatively to the rod, and connections between the link, and the handle and pitman respectively.

4. The combination with a pump rod, its handle, and a windmill pitman; of a block connected to the rod, said block being grooved on opposite sides, a forked link straddling the block, and slidably mounted in the grooves thereof, said link being laterally adjustable relatively to the rod, and connections between the link, and the handle and pitman respectively.

5. The combination with a pump rod, its handle, and a windmill pitman; of a link connected transversely to the rod, and laterally adjustable relatively to said rod, a locking device for holding the link in adjusted positions, and connections between the link, and the handle and pitman respectively.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN DENIS.
ROBERT CLICK.

Witnesses:
W. C. WEBER,
J. K. MARTIN.