P. A. MYERS.

WINDMILL CONNECTOR FOR PUMPS.

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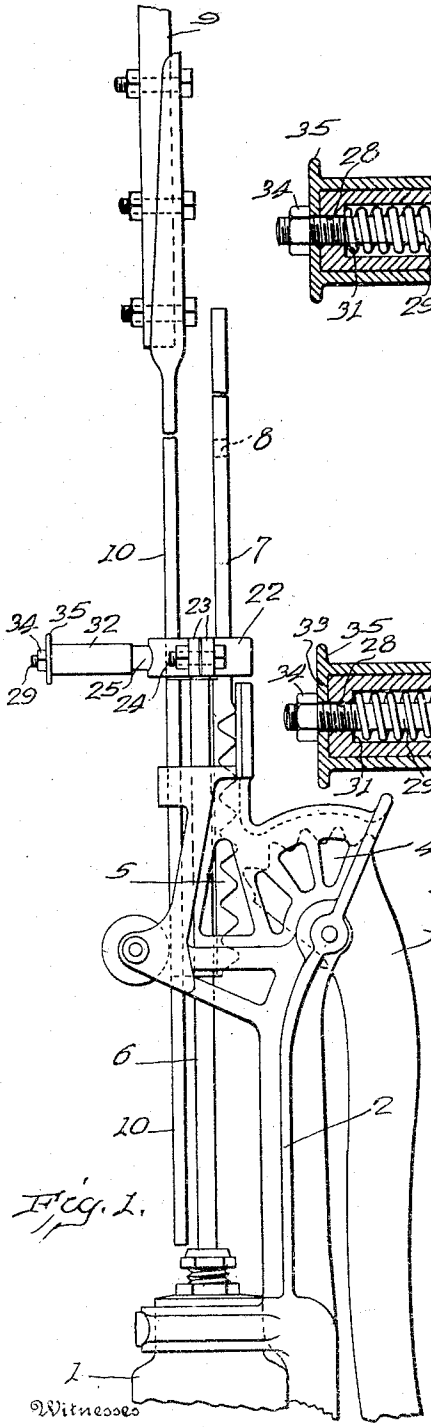


Fig. 1.

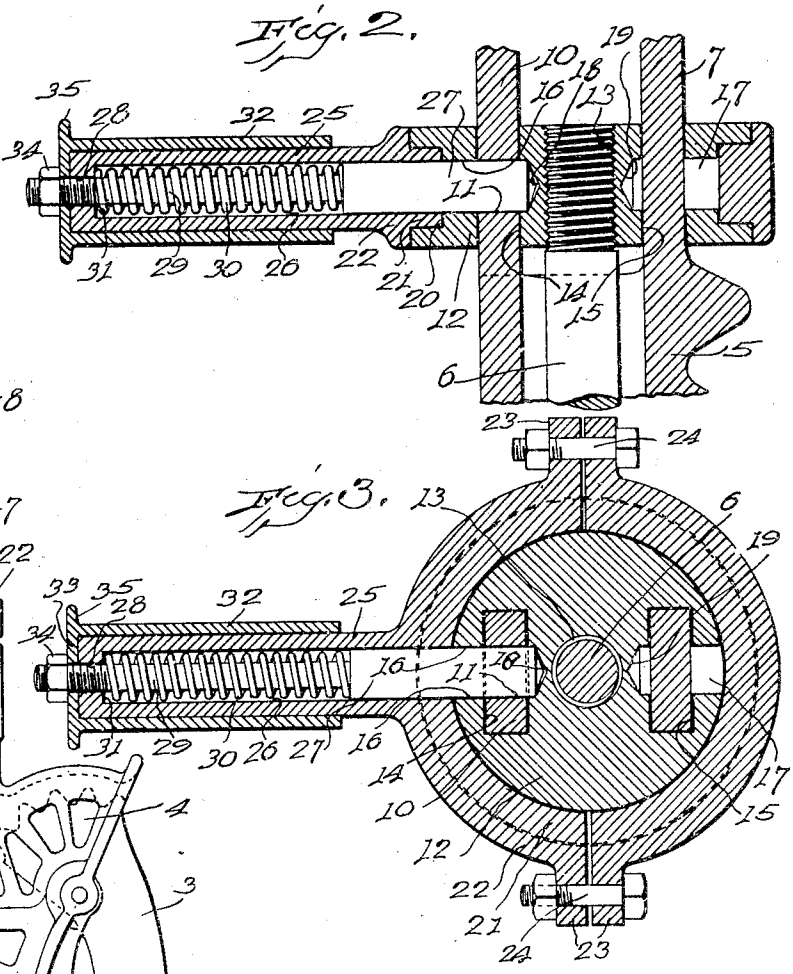


Fig. 2.



Fig. 3.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## WINDMILL CONNECTOR FOR PUMPS.

958,886. Specification of Letters Patent. **Patented May 24, 1910.**

Application filed October 25, 1909. Serial No. 524,288.

*To all whom it may concern:*

Be it known that I, PHILIP A. MYERS, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Windmill Connectors for Pumps, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to windmill connectors for pumps, and the object of the invention is to provide a connector of this character by means of which the windmill rod may be quickly and easily attached to or detached from the pump-rod; to provide a connector by means of which either the windmill-rod or the pump handle may be connected to the pump-rod and the operation of which to connect the windmill-rod to the pump-rod will disconnect the pump handle from said pump-rod and vice versa, thus rendering it impossible for both the pump handle and the windmill-rod to be connected with the pump-rod at the same time.

With these objects in view my invention consists in certain novel features and in certain combinations and arrangements of parts hereinafter to be described, and then more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a portion of a pump embodying my invention; Fig. 2 is a vertical, sectional view taken centrally through the connector; and Fig. 3 is a sectional view taken horizontally through the connector.

In these drawings I have illustrated one embodiment of my invention and have shown the same as applied to a pump of ordinary construction and comprising a body portion 1 having an upwardly extending arm or bracket 2 upon which is pivotally mounted the pump handle 3. This handle is provided at its upper end with a segment 4 which meshes with a rack 5 adapted to be connected with the pump-rod 6 and to form an actuating member, by means of which the pump-rod is actuated from the pump handle. The rack 5 is here shown as having an upwardly extending portion 7 which, in the present instance, forms an integral portion of the rack bar. It is provided some distance above the rack with a transverse aperture 8. A windmill-rod 9 is arranged above the pump and has a downwardly extending portion 10 which is here shown as a bar which is bolted to the lower end of the pump-rod proper and forms in effect a part thereof. This downwardly extending portion of the pump-rod is arranged substantially parallel with the upwardly extending portion 7 of the rack and has a transverse aperture 11 formed therein at a point some distance removed from the lower end thereof.

The connector comprises a body portion or disk 12 having a central screw-threaded opening 13, into which is screw-threaded the upper end of the pump-rod 6. The disk or body portion 12 has arranged on opposite sides of the central opening 13 two vertical openings or guideways 14 and 15 of a size and shape to receive the downwardly extending portion 10 of the windmill-rod and the upwardly extending portion 7 of the rack, respectively, and permit these parts to move freely therein. The body portion is also provided on opposite sides thereof, adjacent to the vertical openings 14 and 15, with substantially horizontal openings or recesses 16 and 17 which intersect the openings 14 and 15, respectively, and extend beyond the inner sides of said openings to form sockets 18 and 19.

An annular groove 20 is formed in the circumferential edge of the disk or body portion 12 and is adapted to receive a tongue 21 forming a part of a collar 22 which is rotatably mounted upon the body portion 12. This collar is here shown as comprising two parts, each substantially semi-circular in shape and each provided with two lugs 23 arranged at the opposite ends thereof, the adjacent lugs of the two parts of the collar being connected one to the other by means of bolts 24 to secure the collar in position upon the body portion. The collar 22 is provided on one side thereof with a laterally extending projection or handle 25, which handle has an opening extending throughout the length thereof and through the adjacent portion of the collar 22. The inner end of this opening is of a comparatively large diameter, as shown at 26, and is adapted to receive a locking member, such as a locking pin 27. The outer portion 28 of the opening is of considerably less diameter than the inner portion and is adapted to receive a reduced portion

or stem 29 of the locking pin 27, which stem extends through and beyond the reduced portion 28 of the opening in the handle. A spring 30, coiled about the stem 29 within the enlarged portion 26 in the opening of the handle, bears against the inner end of the body portion of the locking pin 27 and against the shoulder 31 formed at the point of juncture of the enlarged and reduced portions of the opening in the handle and tends to move the locking pin toward the body portion of the connector. A sleeve 32 having its outer end closed, as shown at 33, is slidably mounted upon the handle 25 and is secured to the stem 29 of the locking pin 27. This connection is preferably formed by extending the stem through the closed end of the sleeve and mounting a nut 34 thereon, which nut retains the sleeve on the stem and causes the stem and the locking pin to move outwardly with the sleeve 32 when the same is actuated. The sleeve is also preferably provided at its outer end with a flange 35, by means of which a better grip may be secured to move the locking pin 27 against the tension of the spring 30. When the handle 25 is moved to bring the pin 27 into alinement with one of the horizontal openings in the body portion, say the opening 16, and the sleeve 32 released, the pin will move inwardly through the opening 16, through the opening 11 in the lower end 10 of the windmill-rod and into the socket 18, formed on the inner side of the aperture in the body portion through which the portion 10 of the windmill-rod extends, thus rigidly securing the windmill-rod to the body portion of the connector, and, consequently, to the pump-rod and causing the pump-rod to be actuated in unison with the windmill-rod. When the pump-rod is so actuated the connector will move freely on the upwardly extending portion 7 of the rack bar or actuating member.

When it is desired to operate the pump-rod by means of the handle 3, the pin 27 is withdrawn from the aperture 16 in the body portion of the connector and the collar 22 is rotated upon the body portion to bring the pin into alinement with the opening 17 therein. The rack is then manipulated to bring the opening 8 in the upwardly extending portion 7 thereof into alinement with the opening 17 in the body portion and the pin 27 is then permitted to move inwardly under the pressure of the spring 30 which causes it to extend through the openings 17 and 8 and to enter the socket 19, thus connecting the actuating member or rack bar with the body portion of the connector, and, consequently, with the pump-rod. When operated in this manner the connector will move freely on the downwardly extending portion of the windmill-rod which extends loosely through the opening 14 in the body portion thereof.

Thus, it will be seen that by means of this connector either the windmill-rod or the pump handle may be very quickly and easily connected to the pump-rod; that the connection is a strong, positive one; and further, that before one member can be connected to the pump-rod the other member must be disconnected therefrom, thus avoiding any possibility of both members being simultaneously connected to the pump-rod. Further, it will be apparent that the construction is a very simple one and the device will not be easily broken nor the parts thereof disarranged.

I wish it to be understood that I do not desire to be limited to the details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

1. The combination, with a pump having a handle, an actuating member operatively connected to said handle, a pump rod, and a windmill rod, of a connector comprising a body portion secured to said pump rod and having guideways adapted to receive said actuating member and said windmill rod, respectively, and a locking member mounted on said body portion, movable toward and away from said body portion and arranged to be moved about the same to enable said locking member to engage either said actuating member or said windmill rod and connect the part so engaged to said body portion.

2. The combination, with a pump having a handle, an actuating member operatively connected to said handle, a pump rod, and a windmill rod, of a connector comprising a body portion secured to said pump rod and having guideways adapted to receive said actuating member and said windmill rod, respectively, and having recesses intersecting said guideways, and a locking pin mounted on said body portion, arranged to be moved into and out of said recesses and also arranged to be moved about said body portion to enable said pin to enter either one of said recesses and engage the member extending through the same and secure said member to said body portion.

3. The combination, with a pump having a handle, an actuating member operatively connected to said handle, a pump-rod, and a windmill-rod, of a connector comprising a circular body portion adapted to be connected to the pump-rod and having vertically arranged guideways therein adapted to receive said actuating member and said windmill-rod, respectively, horizontal re-

cesses intersecting said vertical guideways, a collar rotatably mounted on said circular body portion, a locking pin carried by said collar and adapted to extend through said recesses and through said guideways.

4. A windmill connector for pumps comprising a circular body portion having vertically arranged guideways and horizontal recesses intersecting said guideways, a collar rotatably mounted on said body portion, a hollow handle for said collar, a locking pin slidably mounted in said hollow handle, a spring arranged in the rear of said locking pin, and a sleeve mounted on said handle and connected to said locking pin to enable the same to be withdrawn against the tension of said spring.

5. A windmill connector comprising a body portion adapted to be secured to a pump rod and having vertically arranged guideways, a member rotatably mounted on said body portion, and a locking pin movably mounted on said rotatable member and arranged to be moved toward and away from said body portion to cause said pin to intersect one or the other of said guideways according to the position of said rotatable member.

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

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