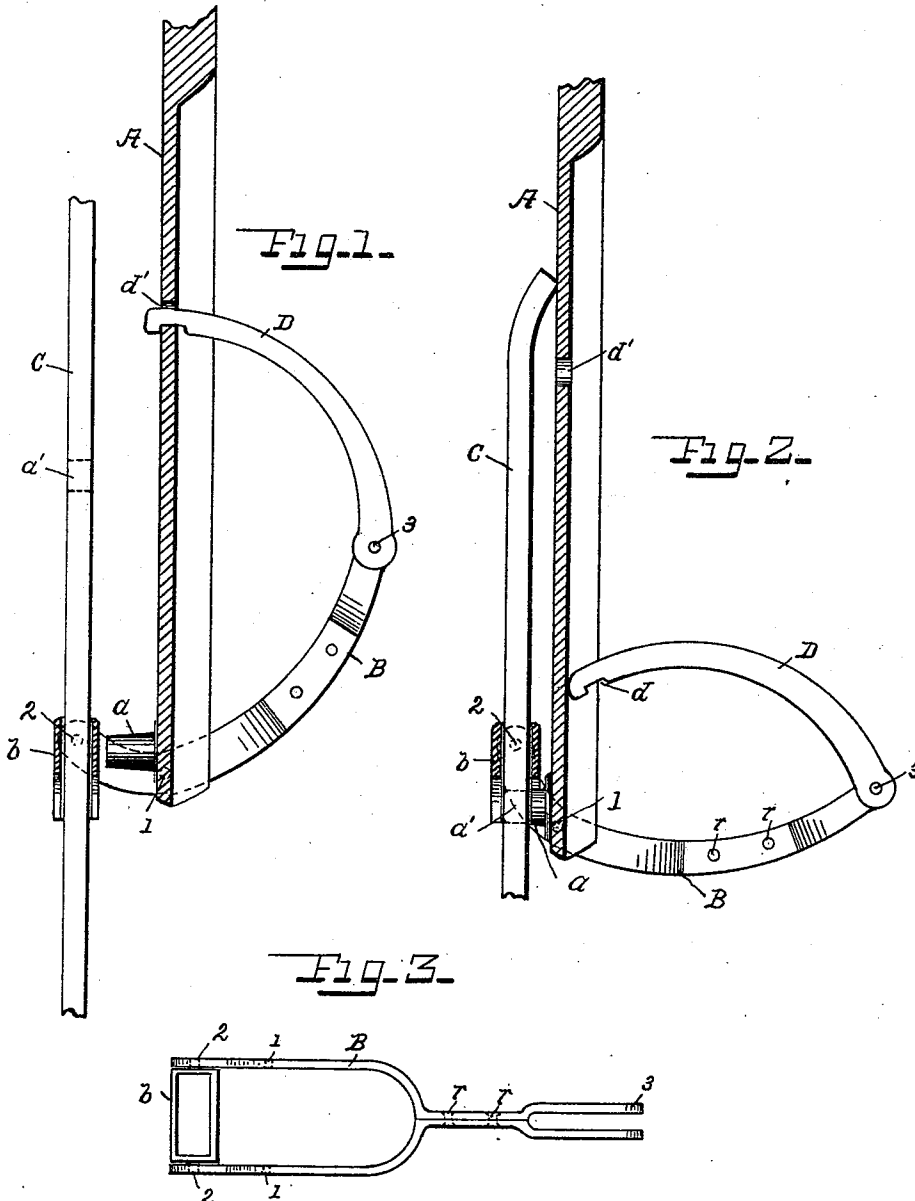


(No Model.)

F. M. HURTLE.
DETACHABLE ROD COUPLING.

No. 538,611.

Patented Apr. 30, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

FREDERICK M. HURTLE, OF BATTLE CREEK, MICHIGAN, ASSIGNOR OF
ONE-HALF TO ALBERT HUMPHREY, OF SAME PLACE.

DETACHABLE ROD-COUPLING.

SPECIFICATION forming part of Letters Patent No. 538,611, dated April 30, 1895.

Application filed September 11, 1894. Serial No. 522,710. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK M. HURTLE, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented certain new and useful Improvements in Detachable Rod-Couplings; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The object of this invention is to provide a simple and effective device for coupling the power shaft of wind-mills or the pitman thereof with the piston-rod of the pump or other reciprocating gear; and the nature of the invention consists in a flaring pin or projection forming the connection, together with co-acting elements, whereby the lost-motion hitherto occurring by wear of the parts is obviated; and the extra wear and violent shocks caused by said lost motion done away with.

In the drawings forming part of this specification, Figure 1 is a vertical section showing the pitman and piston-rod out of gear or not in working position. Fig. 2 is a similar view showing the same parts in gear or in position for work, and Fig. 3 is a detached view showing the automatically-locking link in plan.

In the drawings A represents the power-rod or pitman of a wind-mill, to the lowermost extremity of which is vertically hinged the lever-arm B, by means of the pin or pivot 1. Adjacent to said pin or pivot on the opposite side thereof is the flaring outwardly projecting lug or pin *a*. The link B is preferably made in two parts of fork-shape, firmly fixed together by rivets *r* or the like. At its wider part, said link carries an open swivel or swinging thimble *b*, pivoted to the opposite arms of the link by means of horizontal pins or pivots 2 as seen in Fig. 3. The vertical opening through said swivel *b* corresponds in size and form to the cross section of piston rod C which plays therein at all times as hereinafter set forth.

Vertically hinged to the outer end of link B at 3 is the locking latch D provided with a notch *d* on its under side in position to engage the edge of an aperture *d'* formed in pitman A at certain times whereby the parts are held out of gear as shown in Fig. 1.

From the foregoing description and drawings it will be obvious that when said latch D is lifted and its notch *d* caused to engage with the edge of aperture *d'* the lower end of pitman A will be forced away from the piston-rod C, but when said link or latch D is forced down or allowed to fall as seen in Fig. 2, the lower end of pitman A will be drawn toward the piston-rod C whereby the pin or lug *a* on said pitman will be caused to engage and enter an aperture *a'* formed in the piston-rod C whereby the parts will be securely locked together. If desired, a stud or locking ridge or shoulder may be formed upon the pitman A below aperture *d'* in position to engage and hold down the latch D when in its lowered position seen in Fig. 2.

Among the advantages resulting from the use of the device above-described may be mentioned that of overcoming the lost motion caused by wear of the interlocking parts as heretofore constructed; whereas by means of the flared projection *a* entering the aperture in the piston-rod and the latch D pushing said projection tightly into place, however great the wear, no motion of the parts can occur.

Having thus described my invention, I claim—

1. The combination with a piston-rod having an aperture and a pitman having a projection adapted to enter said aperture, of a link pivotally attached to one of said parts and having a sliding connection with the other part, substantially as set forth.

2. The combination with a piston-rod having an aperture and a pitman having a projection to enter said aperture, of a link pivotally connected to one of said parts and having a swinging thimble encircling the other part, substantially as set forth.

3. The combination with a piston-rod having an aperture and a pitman having a projection to enter the same, of a link pivotally

connected to one of said parts and having a sliding connection with the other part, and a latch pivoted to the free end of said link and adapted to hold the same in position when
5 set, substantially as set forth.

4. The combination of a piston-rod having an aperture, a pitman having a projection to enter said aperture, a link, pivoted to the pitman, a swinging thimble mounted on said link
10 and sliding on the piston-rod, and a latch piv-

oted to the free end of said link, and adapted to be supported at its free end on stops formed on the pitman, substantially as set forth.

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

FREDERICK M. HURTLE.

Witnesses:

MORRIS B. SAMPSON,
EDWARD FRENCH.