No. 777,113. PATENTED DEC. 13, 1904.

J. E. LESTER.

WINDMILL PUMP COUPLING.

APPLICATION FILED AUG. 29, 1904.

NO MODEL.

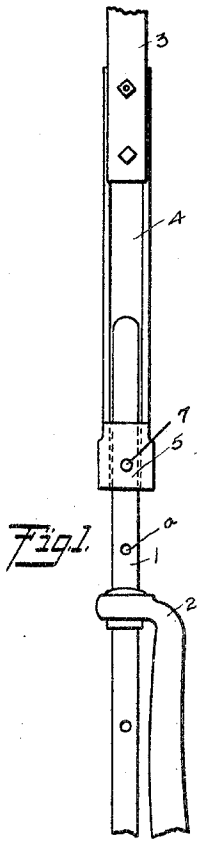


Fig. 1.

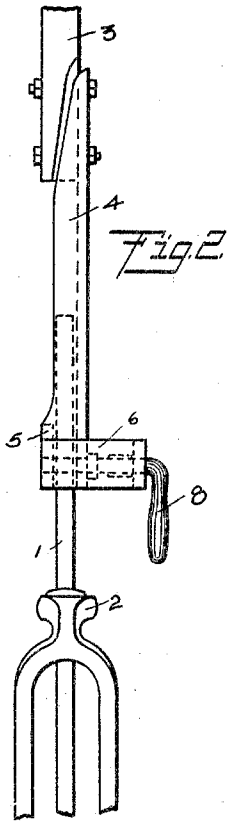


Fig. 2.

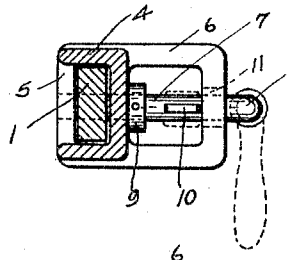


Fig. 3.

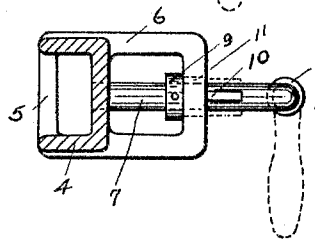


Fig. 4.

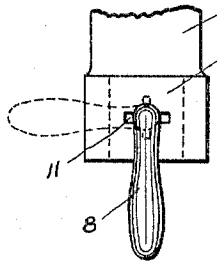


Fig. 5.

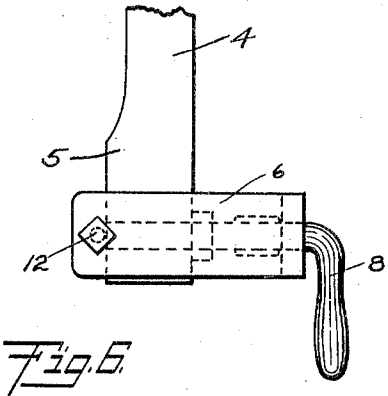


Fig. 6.

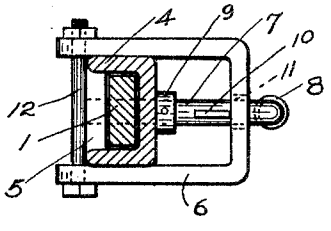


Fig. 7.

Witnesses
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Inventor
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No. 777,113. Patented December 13, 1904.

UNITED STATES PATENT OFFICE.

JOHN EMERY LESTER, OF BEATRICE, NEBRASKA, ASSIGNOR TO JOHN W. BATTIN AND RALPH E. SUNDERLAND, OF OMAHA, NEBRASKA.

WINDMILL-PUMP COUPLING.

SPECIFICATION forming part of Letters Patent No. 777,113, dated December 13, 1904.

Application filed August 29, 1904. Serial No. 222,670. (No model.)

To all whom it may concern:

Be it known that I, JOHN EMERY LESTER, a citizen of the United States, and a resident of Beatrice, county of Gage, and State of Nebraska, have invented certain new and useful Improvements in Windmill-Pump Couplers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to windmills, and more particularly to couplers for connecting a windmill-rod operatively with a pump-rod.

It is the object of my invention to provide a simple, inexpensive, efficient, and durable coupler of this class.

With this object in view my invention consists in the particular constructions, combinations, and arrangements of parts more fully described hereinafter and illustrated in the accompanying drawings, forming a part hereof.

In the drawings, Figure 1 is a front elevation of a pump head and rod and mill-rod having my coupler applied thereto. Fig. 2 is a side elevation of the same. Fig. 3 is a plan view of the foot-piece of the flat-bar connection, showing the coupler in engaged position. Fig. 4 is a similar view showing the coupler in disengaged position. Fig. 5 is a rear elevation of the same. Fig. 6 shows the coupler applied as an attachment to the ordinary form of flat-bar connection, and Fig. 7 is a plan view of the same.

Referring now to the reference characters of the drawings, 1 is the upper part of a pump-rod, or that portion thereof ordinarily termed the "flat bar." This flat bar has two or more holes or perforations *a* therein and passes through the pump-head 2, being guided thereby. These parts, as well as the mill-rod 3 and the upper part of the flat-bar connection 4, are of ordinary form and are shown merely to indicate the location and arrangement of my coupler.

Carried on the foot-piece 5 of the flat-bar connection 4 and preferably formed integral therewith is a U-shaped bracket 6, extending rearwardly from the foot-piece and having an opening in the rear side thereof through which passes the pin 7, the same being adapted to pass also through the front and rear sides of the foot-piece. Integral with the said pin is a handle 8, by which the same may be turned and inserted or withdrawn, as desired. A collar 9 is secured on the pin 7 between the rear side of the bracket and the side of the foot-piece adjacent thereto. This collar limits the possible longitudinal movement of the pin, engaging the rear side of the foot-piece as one limit and the rear side of the bracket as the other, as shown in Figs. 3 and 4, respectively.

On opposite sides of the pin 7, adjacent to the collar 9, are the feathers 10. Corresponding recesses 11 are formed at the sides of the opening through which the pin passes in the rear side of the bracket 6, so that when the pin is turned to bring the feathers opposite said recesses it may be inserted or withdrawn, the feathers passing through the openings without interference. The feathers and recesses are so arranged as not to coincide when the handle 8 is turned downwardly, as shown in the various figures, but to coincide when the same is turned to one side, as shown by dotted lines in Figs. 3, 4, and 5. The length of the feathers and the arrangement thereof relative to the collar 9 is such that when the said collar engages the rear wall of the foot-piece, limiting the insertive movement of the pin, the feathers will be inside the bracket 6, while when the collar engages the rear side of the bracket, limiting the withdrawal of the pin, the feathers will be outside the bracket, as shown, respectively, in Figs. 3 and 4.

The operation of the coupler will be apparent from the foregoing. The pin 7 being in the disengaged position (shown in Fig. 4) and it being desired to connect the mill-rod with the flat bar, the same is passed through the foot-piece 5 and one of the openings *a* therein brought to coincide with the pin 7 and the openings therefor through the foot-piece. The handle 8 is then turned to one side to attain coincidence of the feathers 10 and recesses 11, as described, the pin is inserted, and the handle released, the weight thereof turning the same down, thus preventing coinci-

dence of the feathers and recesses and making it impossible to accidentally disengage the coupler. To disengage, the handle is turned as before, the pin withdrawn, and the handle released, the same turning down by its own weight, as before, preventing coincidence of the feathers and recesses and accidental insertion of the pin.

In Figs. 6 and 7 the coupler is shown applied as an attachment to the ordinary flat-bar connection. In this case the sides of the U-shaped bracket 6 are made longer, extending over the foot-piece 5 and being clamped thereon by a small bolt 12.

It will be understood that while I prefer for reasons of practice to use the coupler in the identical forms shown I recognize the possibility of the employment of ordinary mechanical equivalents, such as the use of transversely-extending pins instead of the collar 9 and feathers 10, the placing of the feathers upon the bracket 6, and the forming of the recesses therefor in the pin 7, and the making of the handle 8 separate from the pin instead of integral therewith, and where such elements are specified such equivalents are understood to be included.

Now, having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. In a coupler of the class described, a bracket, a pin passing through the same and adapted to operatively connect the flat bar and connection therefor on the mill-rod, means on said pin limiting the longitudinal movement thereof, means on the pin required to be in coincidence with corresponding means on the bracket in order to permit longitudinal movement of the pin, and a handle carried by the pin and so arranged as by its weight to turn the pin to a position at which the means thereon and on the bracket will not coincide to permit longitudinal movement of the pin either from engaged or disengaged position.

2. In a coupler of the class described, a bracket, a pin passing through the same and adapted to operatively connect the flat bar and connection therefor on the mill-rod, a collar on the pin limiting the longitudinal movement thereof and operating between the bracket and flat-bar connection, there being feathers on the pin and recesses in the sides of the opening through the bracket for the passage of the pin, said feathers being adapted to pass entirely through the said recesses in moving the pin from engaged to disengaged position, and a handle carried by the pin and so arranged as by its weight to turn the pin to a position such that the feathers and recesses will not coincide.

3. In a coupler of the class described and in combination with a pump-rod flat bar and flat-bar connection of a mill-rod, a bracket carried by the foot-piece of the flat-bar connection, a pin passing through the bracket and adapted to be passed through the said foot-piece to operatively connect the flat bar thereto, a collar on the pin adapted to limit the longitudinal movement thereof, there being feathers on the pin required to be coincident with corresponding recesses in the bracket in order to permit movement of the pin from engaged to disengaged position, and means normally preventing coincidence of the feathers and recesses.

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

JOHN EMERY LESTER.

Witnesses:
JOHN A. RINE,
D. C. BARNELL.