No. 670,238. Patented Mar. 19, 1901.

E. F. KINGSTON.

WINDMILL AND PUMP COUPLING.

(Application filed Sept. 28, 1900.)

(No Model.)

Fig. 1.

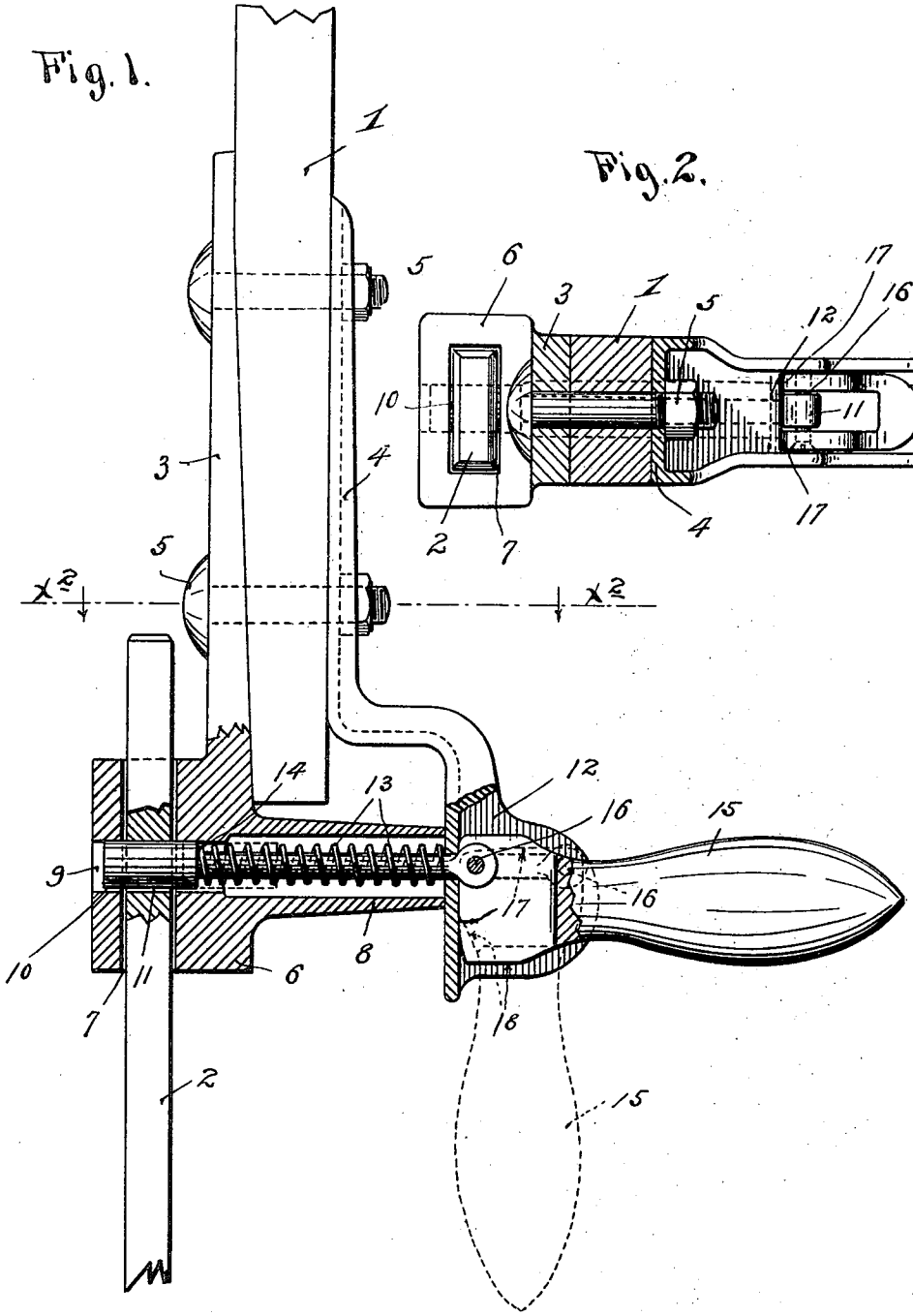


Fig. 2.

Witnesses.
Harry Kilgore.
Mabel M. McSpring

Inventor.
Emery F. Kingston.
By his Attorneys.
Williamson & Merchant

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EMERY F. KINGSTON, OF HASTINGS, MINNESOTA.

WINDMILL AND PUMP COUPLING.

SPECIFICATION forming part of Letters Patent No. 670,238, dated March 19, 1901.

Application filed September 28, 1900. Serial No. 31,347. (No model.)

To all whom it may concern:

Be it known that I, EMERY F. KINGSTON, a citizen of the United States, residing at Hastings, in the county of Dakota and State of Minnesota, have invented certain new and useful Improvements in Windmill and Pump Couplings; and I do hereby 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.

My invention has for its object to provide an improved coupling for connecting and disconnecting the reciprocating stock of a windmill to the piston-rod of a pump.

To the end above indicated the invention consists of the novel devices and combinations of devices hereinafter described, and defined in the claim.

The invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout both views.

Figure 1 is a view in side elevation with some parts broken away and others sectioned, showing a portion of a windmill-stock and of a pump-rod and illustrating my improved coupling applied thereto; and Fig. 2 is a horizontal section on the line x^2 x^2 of Fig. 1.

The numeral 1 indicates the reciprocating stem of the windmill, and the numeral 2 indicates the pump-rod or piston-stem of the pump. A pair of metal straps 3 and 4 are secured by nutted bolts 5 to the windmill-stem 1. The strap 4 is formed with a head 6, which has a vertical passage 7, through which the pump-rod 2 works loosely. Said head 6 has also a sleeve extension 8, through which and a plunger-seat 9, formed therein, a lock-bolt or plunger 10 is mounted to work for engagement and disengagement with a perforation 11 in the pump-rod 2. The strap 4 has a head 12, the base of which bears directly against the extended end of the sleeve 8. A coiled spring 13 on the stem portion of the bolt or plunger 10 is compressed between a shoulder 14 of said bolt and the base of the flanged strap-head 12. This spring 13 puts the lock-bolt or plunger 10 under strain to enter through the perforation 11 of the pump-rod 2, as shown in Fig. 1.

The numeral 15 indicates a handpiece, which, as shown, is pronged at its butt or inner end, so that it embraces the adjacent projected end of the lock-bolt 10, being pivoted thereto, as indicated at 16. The butt or inner end of the handpiece 15 has two bearing-surfaces 17 and 18, that extend approximately at right angles to each other and are adapted in turn to engage with the base and between the side flanges of the pronged strap-head 12. The bearing-surface 17 extends very much closer to the pivot 16 than does the bearing-surface 18. More definitely stated, the bearing-surface 17 extends so close to the said pivot 16 that when the handpiece 15 is turned into the position indicated by full lines in Fig. 1 the lock-bolt or plunger 10 will be permitted under the action of the spring 13 to be thrown into its operative position. On the other hand, the bearing-surface 18 extends at such a distance from the pivot 16 that when the handpiece 15 is turned into a position indicated by dotted lines in Fig. 1 the said lock-bolt or plunger will be drawn and held inward in an inoperative position, in which position it is entirely withdrawn from the vertical passage 7, in which the pump-rod 2 at such time is free to move.

When it is desired to connect the windmill-stem with the pump-rod, it is only necessary to move the handpiece 15 from its dotted-line position and toward or to the position indicated by full lines in said Fig. 1. The coupling will then take place automatically whenever the windmill-stem or the pump-rod is moved so as to bring the perforations 9 and 11 into registration.

The convenience of this device will be readily appreciated by all persons familiar with windmills, and it is important to note that there are no loose parts which may become displaced or lost.

It will of course be understood that the device illustrated in the drawings is capable of considerable modification within the scope of my invention.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

The combination with a reciprocating windmill-stem and the piston-rod of a pump, of a spring-pressed lock-bolt carried by one of said members and engageable with the other

to lock the parts together, there being a flat bearing-surface on the member which carries said lock-bolt, and a handpiece pivoted to said lock-bolt, which handpiece is provided with flat bearing-surfaces 17 and 18 extending approximately at a right angle to each other and coöperating with said bearing-surface, the former permitting said lock-bolt to become operative and the latter holding the same inoperative, substantially as described.

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

EMERY F. KINGSTON.

Witnesses:

WILLIAM HODGSON,

C. STANLEY LOWELL.