J. G. REGENIER.

COUPLING.

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1,372,904.

Patented Mar. 29, 1921.

Fig. 1.

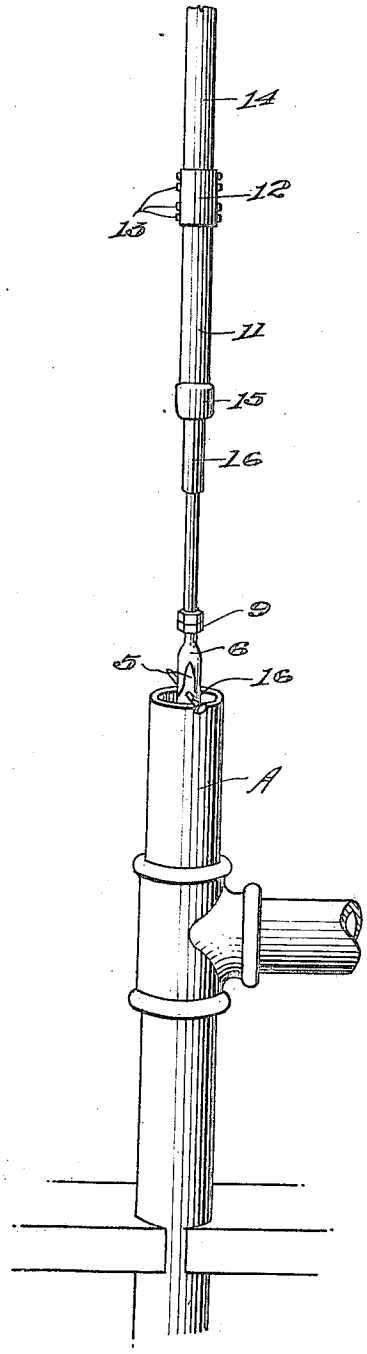



Fig. 2.

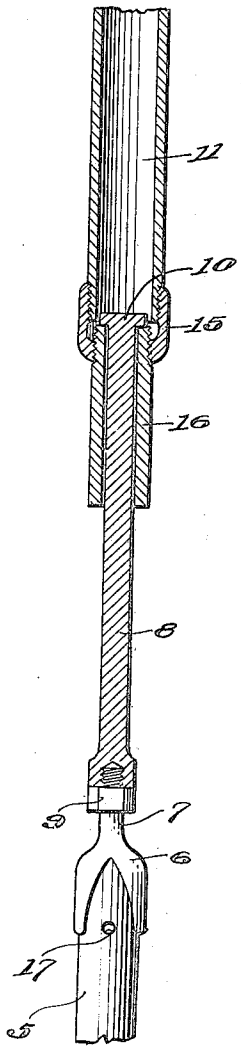
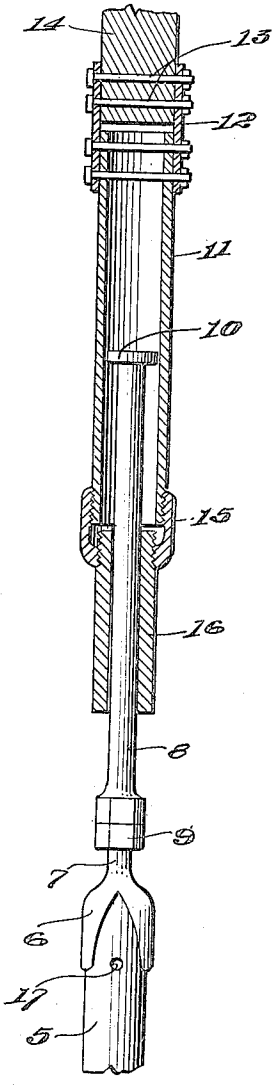



Fig. 3.




John G. Regenier

Inventor

By Lancaster and Allwine

his

Attorneys

# UNITED STATES PATENT OFFICE.

JOHN G. REGENIER, OF MENARD, TEXAS.

## COUPLING.

1,372,904. Specification of Letters Patent. Patented Mar. 29, 1921.

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*To all whom it may concern:*

Be it known that I, JOHN G. REGENIER, a citizen of the United States, residing at Menard, in the county of Menard and State of Texas, have invented certain new and useful Improvements in Couplings, of which the following is a specification.

This invention relates to a coupling particularly designed for use in connecting the pump rod to the reciprocable rod of the windmill, so as to permit reciprocation of the wind mill rod independently of movement of the pump rod, and which also will permit the relatively quick and easy change from the windmill power to engine power, such as gasolene engine or the like, for pumping water from wells.

More specifically, the invention comprehends the provision of a coupling, comprising a headed rod which is detachably connected to the pump rod or sucker rod of a pump structure, and which has a sleeve mounted thereabout, the said sleeve being connected, through the medium of a coupling or joint to a sleeve which is in turn securely connected to the reciprocatory rod of a wind mill engine or structure, the said parts being associated in such manner that a pin or the like may be inserted through the pump rod and engage against the pump casing, at the upper end thereof to hold the pump rod against reciprocation, at which time the sleeve will move longitudinally of the headed coupling rod, permitting reciprocation of the wind mill operating rod independently of movement of the pump rod, the said coupling being adapted to be easily and quickly moved for disconnecting the windmill rod, to permit the connection of suitable means from a gasolene engine or other power plant to the headed rod which is detachably connected to the pump rod.

Other objects of the invention will appear in the following detailed description taken in connection with the accompanying drawing, forming a part of this specification, and in which drawing;

Figure 1 is a side elevation of the improved coupling associated with a pump casing.

Fig. 2 is a longitudinal section through the coupling showing a lifting operative engagement between the headed rods and the wind mill carried casing, and

Fig. 3 is a view similar to Fig. 2 illustrating the parts in different positions.

Referring more particularly to the drawings, the pump structure which includes the casing A, may be of any approved type commonly employed in connection with wind mill engines or motors, for pumping water from wells, and this pump structure which includes the casing A also includes the usual form of sucker rod 5, to the upper end of which the coupling is attached. The coupling 6 has a threaded shank 7 formed thereon, which is threaded into the lower end of a headed rod 8, suitable locking means 9 being provided for locking the threaded connection between the shank 7 and the rod 8. This rod 8 has a head 10 formed upon its upper end, which head is positioned within the sleeve 11. The sleeve 11 is connected at its upper end by means of a coupling sleeve 12 and diametrically extending bolts 13, with the reciprocating rod 14 of an ordinary wind mill motor, and it is connected by means of a pipe coupling 15 at its lower end with the sleeve 16. The sleeve 16 is mounted about the rod 8 and moves longitudinally thereover during the downward movement of the windmill rod 14. In operation, when the wind mill rod is reciprocated by any approved type of wind motor or mill, the downward movement of the rod 14 will cause the sleeve 16 to move downwardly along the rod 8 as indicated in Fig. 3 of the drawings, during which movement the weight of the sucker rod 5 will cause the same to fall downwardly. However, when the rod 14 starts upon its upward stroke, the upper end of the sleeve 16 will engage beneath the head 10 and elevate the rod 8 and consequently the sucker rod 5 of the pump with the upward movement of the rod 14, for operating the pump structure. When it is desired to permit the rod 14 to reciprocate, without imparting movement to the sucker rod 5 of the pump structure, a pin preferably a headed pin 16 is inserted through the diametrical opening 17 formed in the sucker rod 5 near its upper end, and in the end to engage against the upper end of the casing A of the pump, thus holding the sucker rod 5 and consequently the coupling rod 8 which is connected thereto in their upward positions during the downward movement of the rod 14 and sleeve 11 and 16, permitting idle reciprocation of these members.

When it is desired to connect other motive power such as a gasolene engine or the like

to the sucker rod 5 for reciprocating the same, the coupling 15 is disconnected, from the sleeve 11, disconnecting the sleeves 16 and 11, and consequently disconnecting the sucker rod 5 from the wind mill operated rod 14, allowing the headed rod 8 to be used for connection with the motor or engine.

Changes in details may be made without departing from the spirit of this invention, but;

I claim:

1. In a pump coupling, the combination with a pump casing and sucker rod, of a headed rod detachably connected to the sucker rod, a sleeve mounted upon said headed rod, an operating rod, means detachably connecting said operating rod and said sleeve, and means for engagement with said sucker rod and pump casing, to restrain the sucker rod against movement during reciprocation of the operating rod and sleeve.

2. In a pump coupling, the combination with a pump casing and sucker rod, of a headed rod detachably connected to the sucker rod, a sleeve slidably mounted upon said headed rod, an operating rod, means detachably connecting the operating rod and sleeve, said sleeve adapted to engage beneath the head of the headed rod to elevate said headed rod and sucker rod upon upward movement of the operating rod, said sucker rod and headed rod adapted to fall by gravity during downward movement of the operating rod and sleeve, and means for detachable connection with the sucker rod for arresting downward movement of the sucker rod.

3. In a pump coupling, the combination with a pump casing and a sucker rod, of a headed rod detachably connected to the sucker rod, a sleeve slidably mounted upon said headed rod, an operating rod, means detachably connecting the operating rod and sleeve, said sucker rod provided with a transverse opening near its upper end, and a pin adapted to be inserted through said opening and for engagement against the upper end of said pump casing to restrain the sucker rod against downward movement.

4. In a pump coupling, the combination with a pump casing and sucker rod, of a headed rod detachably connected to the sucker rod, a sleeve slidably mounted upon said headed rod, an operating rod, a sleeve connected to said operating rod, a coupling detachably connecting said first and second named sleeve for reciprocating said first-named sleeve upon movement of the operating rod, said first named sleeve adapted to engage beneath the edge of the headed rod to elevate the headed rod and sucker rod upon upward movement of the operating rod, said sucker rod and headed rod adapted to move downwardly by gravity during downward movement of the operating rod.

5. In a pump coupling, the combination with a pump casing and sucker rod, of a headed rod detachably connected to the sucker rod, a sleeve slidably mounted upon said headed rod, an operating rod, a sleeve connected to said operating rod, a coupling detachably connecting said first and second named sleeve for reciprocating said first-named sleeve upon movement of the operating rod, said first named sleeve adapted to engage beneath the edge of the headed rod to elevate the headed rod and sucker rod upon upward movement of the operating rod, said sucker rod and headed rod adapted to move downwardly by gravity during downward movement of the operating rod, said sucker rod provided with a transverse opening near its upper end, and a pin adapted to be inserted in said opening and to engage the upper end of the pump casing to restrain the sucker rod against downward movement.

6. In a pump coupling, the combination, with a pump casing and sucker rod, and a wind mill reciprocating rod, of a coupling rod detachably connected to said sucker rod, means for permitting operation of said sucker rod upon reciprocation of the reciprocating rod, and means detachably carried by said sucker rod and adapted for engagement with said pump casing to prevent operation of said sucker rod upon reciprocating movement of said reciprocating rod.

JOHN G. REGENIER.