(No Model.)

A. G. NEWMAN & J. A. JOHNSON, Jr.

POWER ATTACHMENT FOR PUMPS.

No. 573,525. Patented Dec. 22, 1896.

Fig. 1.

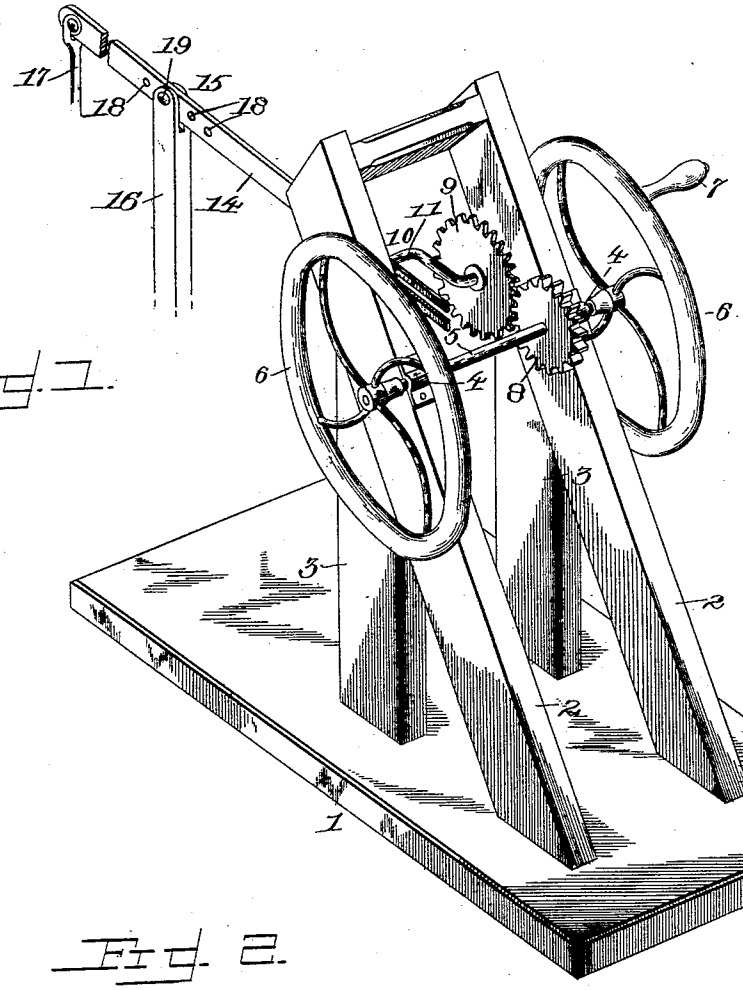
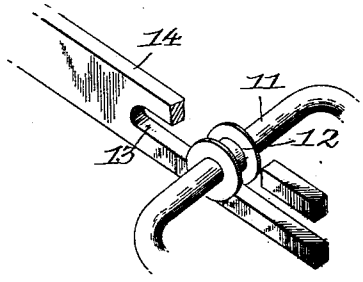


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ALBERT G. NEWMAN AND JOHN A. JOHNSON, JR., OF STRATFORD, IOWA.

POWER ATTACHMENT FOR PUMPS.

SPECIFICATION forming part of Letters Patent No. 573,525, dated December 22, 1896.

Application filed March 23, 1896. Serial No. 584,501. (No model.)

To all whom it may concern:

Be it known that we, ALBERT G. NEWMAN and JOHN A. JOHNSON, Jr., citizens of the United States, residing at Stratford, in the county of Hamilton and State of Iowa, have invented a new and useful Power Attachment for Pumps, of which the following is a specification.

Our invention relates to a power attachment for pumps designed to facilitate the operation of reciprocating plunger-pumps and applicable to any pump of the ordinary construction now in use.

The object of the invention is to provide means for applying increased power to the pump-lever, the connection with said lever being such as to allow lateral vibration thereof without binding and without detracting from the efficiency of the power and to provide means for varying the length of stroke.

Further objects and advantages of this invention will appear in the following description, and the novel features thereof will be particularly pointed out in the appended claim.

In the drawings, Figure 1 is a perspective view of an apparatus constructed in accordance with our invention applied in the operative position to a pump-lever. Fig. 2 is a detail view of the crank-shaft to show the connection between the same and the pump-lever, the latter being shown in section.

Similar numerals of reference indicate corresponding parts in both figures of the drawings.

1 designates a base from which rise inclined standards 2, supported by braces 3, and mounted in bearings 4 upon the standards is a transverse driving-shaft 5, carrying fixed balance-wheels 6. One of the balance-wheels is fitted with a handle 7, by which the driving-shaft may be rotated. The driving-shaft also carries a pinion 8, which meshes with a gear 9 on a crank-shaft 10, mounted in bearings also supported by the standards and disposed parallel with the driving-shaft. The crank of this shaft is provided with an extended spindle 11, parallel with the axis of the shaft, and fitted thereon for movement from one end of the spindle to the other is a flanged antifriction-roller 12, which operates in a longitudinal slot 13 at one end of the pump-lever 14. The peripheral flanges of said antifriction-roller prevent disarrangement of the roller and lever, and inasmuch as the roller is fitted for movement throughout the length of the spindle portion of the crank it is obvious that lateral vibrations of the pump-lever will not relatively disarrange the parts and will not detract from the efficiency of the communication of motion from the crank-shaft to the lever.

The lever may be of any ordinary kind, fulcrumed, for instance, at an intermediate point 15 upon an upright 16 and connected at the other end with a pump-rod 17, and by providing a plurality of openings 18 for engagement by the fulcrum-bolt 19 the length of stroke of the pump-rod may be varied to suit the conditions under which the operation of pumping is to be accomplished.

From the above description it will be seen that the power embodying our invention may be applied to any ordinary pump having a reciprocatory pump-rod, and the provisions made for allowing lateral vibration of the pump-rod will insure the efficiency of the apparatus for communicating motion to the pump-rod under the various conditions of its use.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described our invention, what we claim is—

The herein-described power for operating pump-levers, comprising a driving-shaft, balance-wheels and means for communicating rotary motion thereto, a crank-shaft mounted parallel with and geared to the driving-shaft and provided with a crank having a longitudinally-extended spindle portion, and a flanged roller mounted upon said extended spindle portion for free movement parallel with the axis of the crank-shaft and adapted to operate in a slotted extremity of the pump-lever, to allow free lateral vibration of the pump-lever without affecting the transmission of motion from the crank-shaft to the lever, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in the presence of two witnesses.

ALBERT G. NEWMAN.
JOHN A. JOHNSON, JR.

Witnesses:
CHRIS WILLIAMS,
J. H. JOHNSON.