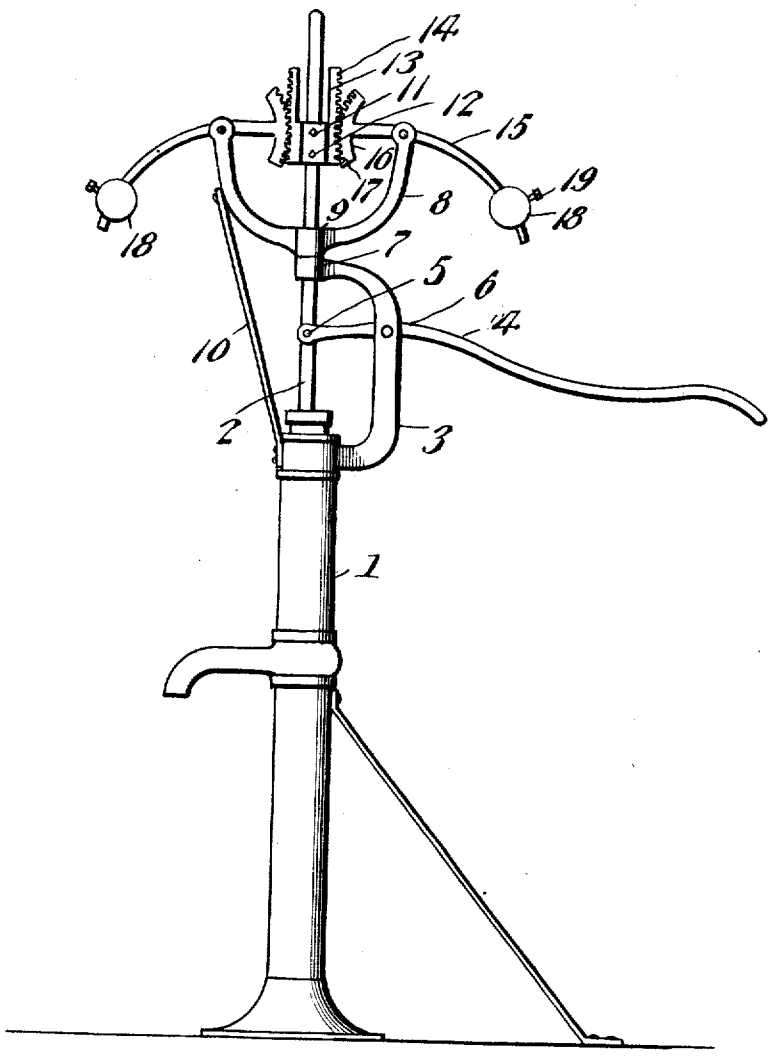
No. 829,355. PATENTED AUG. 21, 1906.

A. SCHLUTER.

PUMP.

APPLICATION FILED JUNE 21, 1905.



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PUMP.

No. 829,355. Specification of Letters Patent. Patented Aug. 21, 1906.

Application filed June 21, 1905. Serial No. 266,310.

To all whom it may concern:

Be it known that I, ARTHUR SCHLUTER, a citizen of the United States of America, residing at Waunakee, in the county of Dane and State of Wisconsin, have invented new and useful Improvements in Pumps, of which the following is a specification.

The invention relates to an improvement in pumps, and particularly to a governor therefor designed in operation to secure a steady even movement of the piston-rod in operation.

The main object of the present invention is the provision of adjustable means arranged to counterbalance the weight of the pump-rod, whereby to insure a steady and even reciprocation thereof under power or hand operation.

The preferred embodiment of details of the present invention will be described in the following specification, reference being had particularly to the accompanying drawing, which illustrates in side elevation a pump having a governor constructed in accordance with my invention.

Referring to the drawing, wherein like reference-numerals indicate like parts throughout, 1 represents a pump-casing; 2, the pump-rod; 3, the handle-bracket, and 4 the handle, pivotally connected at its inner terminal to the pump-rod at 5 and fulcrumed at 6 on the handle-bracket. All these parts may be of any usual or preferred construction, as they form no material part of the present invention, the handle-bracket 3, however, being, by preference, provided at its upper end with a sleeve or bearing 7 to receive and guide the pump-rod 2.

In carrying out my invention I provide a U-shaped frame 8, centrally formed with an opening 9, adapted to be passed longitudinally on the pump-rod 2 and rest upon the sleeve 7 of the handle-bracket, a brace 10 secured to one of the arms of the frame 8 and to the pump-casing serving to prevent independent movement of the frame.

11 represents a cog-plate comprising a body portion formed with a longitudinally-arranged opening and to engage the pump-rod, said plate being secured in adjusted position through the medium of set-screws 12. By preference, the upper end of the pump-rod is square in cross-section, and the opening in the body of the cog-plate is also square to fit the pump-rod, though it is to be understood that I contemplate the use of a cog-plate in connection with pump-rods of any sectional contour. The body of the cog-plate is provided on its longitudinal edges with vertically-extending arms 13, formed or provided on their outer edges with cogs or teeth 14. The arms 13 extend above the body of the plate, but are spaced from the pump-rod, whereby to provide for a ready connection of the operating-arms or lengths from a gas-engine or other power-machine.

The free ends of the arms of the frame 8 are bifurcated, and in the bifurcations are pivotally-supported levers 15, which when in position on the frame project outwardly and downwardly therefrom on a gradual curve, as illustrated. The inner ends of the levers 15 are provided with transversely-arranged segments 16, having on their edges next the pump-rod a series of teeth 17, arranged to operatively intermesh at all times with the teeth 14 on the arms 13 of the cog-plate. A weight 18 is slidably mounted on the free end of each of the levers 15, being held in adjusted position lengthwise said lever by a set-screw 19.

In operation the reciprocatory movement of the pump-rod under the influence of a power-machine or of the handle 4 will be effectively counterbalanced by the weights 18, insuring an even steady movement of the pump-rod and obviating the jerking ordinarily incident to its movement when free of a governing mechanism. The weights 18 may be adjusted lengthwise the levers 15 to provide the compensation desired, the movement of the weights toward the free end of the levers increasing, of course, their counterbalancing effect.

The structure described is simple and may be readily applied to pump structures now in use without change in their details.

Having thus described the invention, what I claim is—

The combination with a pump having a handle-bracket provided with a guiding-sleeve, a pump-rod operating through said sleeve, and a handle pivoted upon the bracket and operatively connected with the

pump-rod, of a U-shaped frame supported upon the handle-bracket and having an opening for the passage of the pump-rod, levers pivoted upon the arms of the U-shaped frame and having toothed segments, weights adjustable upon the levers, a rack-plate secured upon the pump-rod and having rack-arms engaging the toothed segments, and a brace connecting the U-shaped frame with the handle-bracket and assembling the parts.

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

ARTHUR SCHLUTER.

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