G. ELLINGSON.

PUMP.

APPLICATION FILED MAY 1, 1919.

1,325,398. Patented Dec. 16, 1919.

Fig. 1.

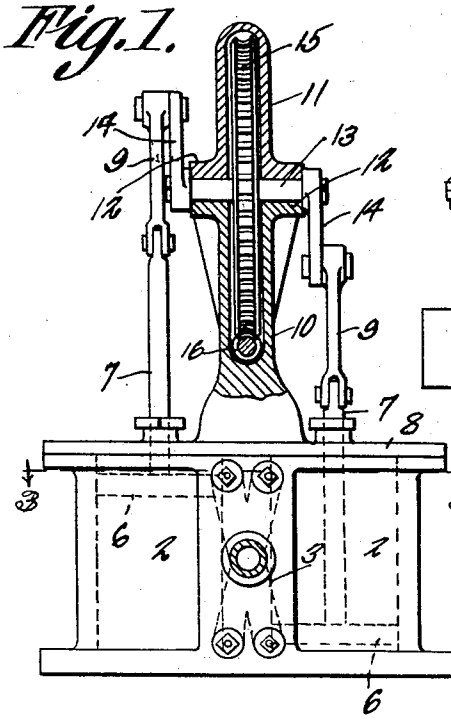
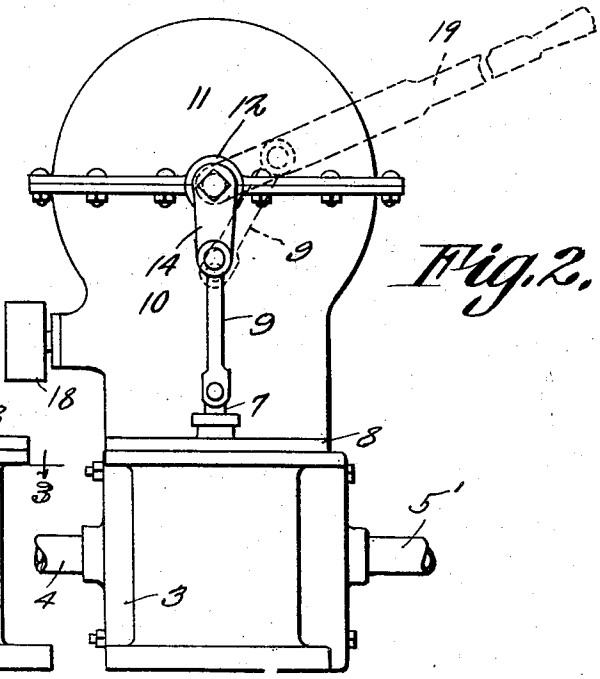


Fig. 2.



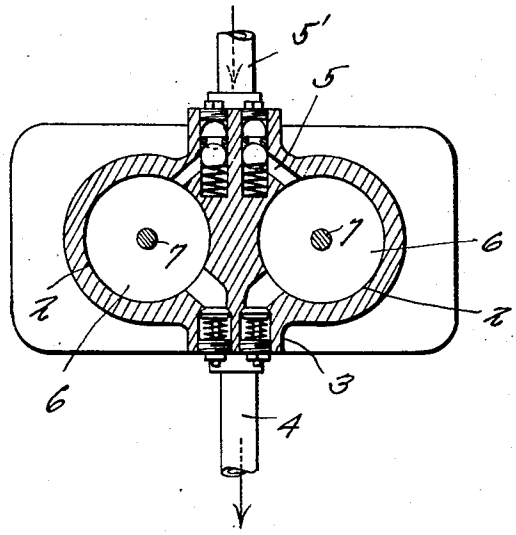
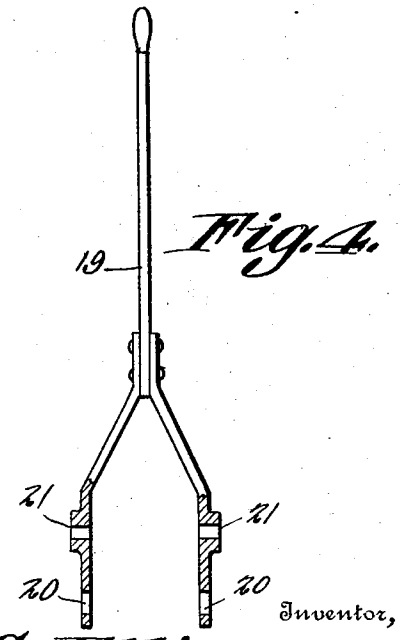


Fig. 3.

Fig. 4.



Witness

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UNITED STATES PATENT OFFICE.

GABE ELLINGSON, OF KIMBALL, SOUTH DAKOTA.

PUMP.

1,325,398. Specification of Letters Patent. Patented Dec. 16, 1919.

Application filed May 1, 1919. Serial No. 294,129.

To all whom it may concern:

Be it known that I, GABE ELLINGSON, a citizen of the United States, residing at Kimball, in the county of Brule and State of South Dakota, have invented a new and useful Pump, of which the following is a specification.

This invention relates to improvements in pumps, the object of the invention being to provide an improved double pump, that is to say, a pump formed of a pair of cylinders cast in one block side by side, and which pump is adapted to be driven by a worm gear and also by hand.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention consists of the novel features of construction and combination of parts which will be fully described hereinafter and particularly pointed out in the claim.

In the drawings accompanying and forming part of this specification,

Figure 1 is a sectional elevation of a pump constructed in accordance with the present invention;

Fig. 2 is a side elevation illustrating in broken lines the application of a handle for manually operating the pump;

Fig. 3 is a cross section of the pump, taken on the line 3—3 of Fig. 1, looking in the direction of the arrows; and

Fig. 4 is a side elevation, partly in section of a handle adapted for use in the manual operation of the pump.

The same characters of reference designate the same parts in the different figures of the drawings.

Referring to the drawings, 2 designates a pair of cylinders cast in one block, and 3 a discharge chamber, preferably integral with the cylinders and provided with a single discharge port 4 adapted for connection to a pipe or hose, each of the cylinders having a valve-controlled outlet opening in communication with said discharge chamber. The cylinders 2 are each provided with an inlet opening 5 adapted to be connected to a common water supply pipe 5′. The inlet openings 5, are in communication with the relatively large valve cylinders 6′ and 7′, each of which valve cylinders houses a spring member 8′, which spring members restrict the movement of the ball valve members 9′, which ball valve members are held to their seats, by means of the threaded plugs 10′, operating in the threaded ends of the valve cylinders 6′ and 7′. Each of the cylinders is provided with a piston 6 secured to a piston rod 7, which passes upwardly through an opening in the cover 8 of the cylinder and is pivotally connected at the outer end thereof with a pitman 9. Mounted on the cylinders is a suitable two-part housing 10, 11, provided at opposite sides thereof with bearings 12 in which are journaled the ends of a shaft 13, said shaft having secured thereto at each end thereof a crank 14, to which cranks the ends of the pitmen 9 are pivotally connected. On the shaft 13 is secured for rotation therewith a worm wheel 15 adapted to mesh with a worm 16 journaled in the lower part of the housing 10 and provided at one end thereof with a pulley 18 by means of which power may be received from any convenient source.

For permitting the pump to be operated by hand, I have provided a handle 19 that is bifurcated at its lower end and provided with openings 20 adapted to fit the ends of the shaft 13, whereby, on removal of the cranks 14 from the ends of the shaft the ends of the handle may be substituted therefor, the pitmen 9 being then pivoted at their upper ends to the handle at 21. It will thus be seen that by the provision of this handle the pump may be used either as a power pump or as a hand pump, by merely removing the cranks 9 and substituting the handle therefor. The pump described is particularly well adapted for use in filling thresher tanks, or for any other use where a continuous supply of water is desired.

While I have described in detail the structure herein illustrated, it is to be understood that I do not thereby limit my invention to the precise features of construction shown, as I am aware that many mechanical changes may be made therein without departing from the spirit and scope of the invention as set forth in the appended claim.

Having thus described my invention, what I claim is:

In a portable double acting pump, a casing, cylinders within the casing, said casing having enlarged intake openings forming valve cylinders, in communication with the cylinders, intake ports disposed at an angle with relation to the cylinders and intake openings, spring members supported within

the valve cylinders, ball valves in the valve cylinders and operating against the tension of the spring members, means for regulating the movement of the valve members, exhaust ports disposed at an angle with relation to the cylinders, pistons in the cylinders, and means for operating the pistons.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GABE ELLINGSON.

Witnesses:
H. A. SCHOENBERGER,
FRED GRISWOLD.