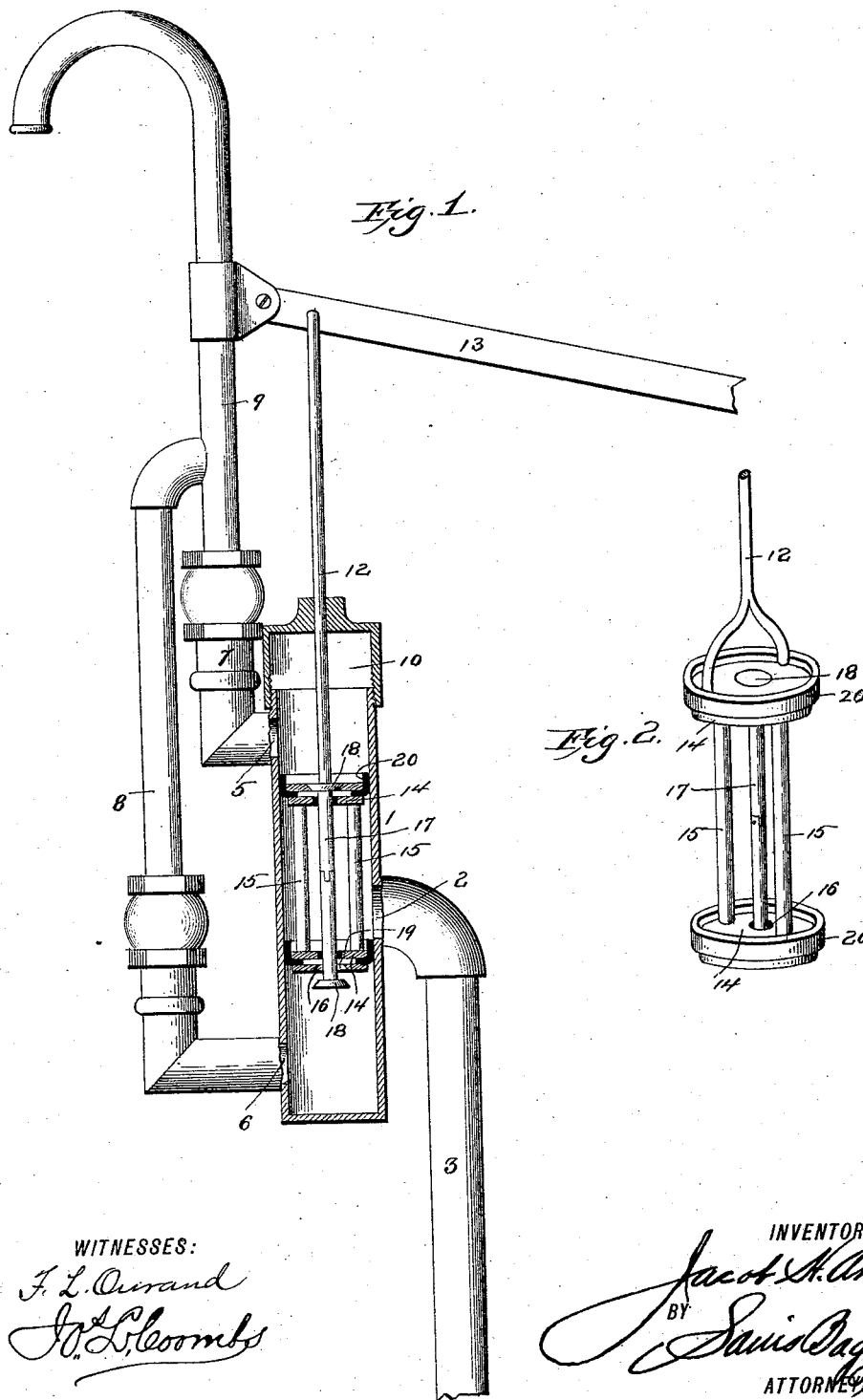


(No Model.)

J. H. ANSLYN.
DOUBLE ACTING FORCE PUMP.

No. 455,979.

Patented July 14, 1891.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB H. ANSLYN, OF STANBERRY, MISSOURI.

DOUBLE-ACTING FORCE-PUMP.

SPECIFICATION forming part of Letters Patent No. 455,979, dated July 14, 1891.

Application filed September 8, 1890. Serial No. 364,324. (No model.)

To all whom it may concern:

Be it known that I, JACOB H. ANSLYN, a citizen of the United States, and a resident of Stanberry, in the county of Gentry and State of Missouri, have invented certain new and useful Improvements in Double-Acting Force-Pumps; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to double-acting force-pumps, and is designed more particularly for use in wells for raising and forcing water, but will be found equally advantageous for all purposes to which such articles or devices are usually applied.

The object of the invention is to provide a cheap, simple, and durable force-pump which shall possess advantages over and be superior to others now in use in point of efficiency and power; and to such ends it consists in the novel construction and combination of parts hereinafter fully described, and specifically pointed out in the claim.

In the accompanying drawings, Figure 1 is a central sectional elevation of a pump constructed in accordance with my invention. Fig. 2 is a perspective view of the plunger.

In the said drawings, the reference-numeral 1 indicates the pump-barrel, consisting of a cylinder closed at each end and having at or near its center an inlet 2, which communicates with the supply-pipe 3, which is inserted in the well. Near each end the cylinder or barrel is provided with discharge or exit orifices 5 and 6, provided with discharge-pipes 7 and 8. These pipes 7 and 8 connect and communicate with the single discharge-pipe 9. The upper end of the barrel 1 is closed by a removable screw-cap 10, through which passes the plunger-rod 12, provided with an operating-handle 13, pivoted to pipe 9.

The plunger, which constitutes the principal feature of my invention, consists of two disks 14, connected together by short rods 15. These disks have apertures or openings 16, forming the valve-seats, through which works the plunger-stem 17, having at each end an enlarged inwardly-beveled head 18. These

heads both project outside of the disks, which latter are provided with annular counter-sinks 19 for the heads to fit in, so as to make a perfect joint.

The numerals 20 20 designate packing-disks made of leather or other suitable material secured to the disks 14.

The plunger-stem 17 is made in two parts 60 pivotally connected together intermediate of the heads 18, so as to prevent any jar or concussion, which would be the case if said stem were made in one piece.

The operation will be readily understood. 65 Upon the downstroke of the plunger water will enter at the barrel from the inlet-opening and will escape through the opening in the upper end of the plunger into the upper part of the barrel. Upon the upstroke the 70 action will be reversed and the upper opening of the plunger will be closed and the lower one opened. The water in the upper part of the barrel will be forced through pipe 5 to discharge-pipe 9, while the water enter- 75 ing the barrel will now flow to the lower part thereof to be discharged through pipe 6 into discharge-pipe 9 on the return-stroke of the plunger.

From the above it will be seen that the 80 plunger is double-acting, alternately forcing the water from opposite ends of the pump-barrel into the discharge-pipe, thus insuring a steady and uniform flow therefrom.

Having thus described my invention, what 85 I claim is—

In a double-acting force-pump, the combination, with the pump-barrel having a central inlet and an exit at each end, of the plunger consisting of two disks connected 90 together having apertures or openings therein, a two-part stem having beveled heads for alternately opening and closing said openings, said stems being pivoted together intermediate the heads, and packing-disks secured 95 to the aforesaid disks, substantially as described.

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

JACOB H. ANSLYN.

Witnesses:

SAM. H. BENSON,
CHARLES A. FRISBIE.