

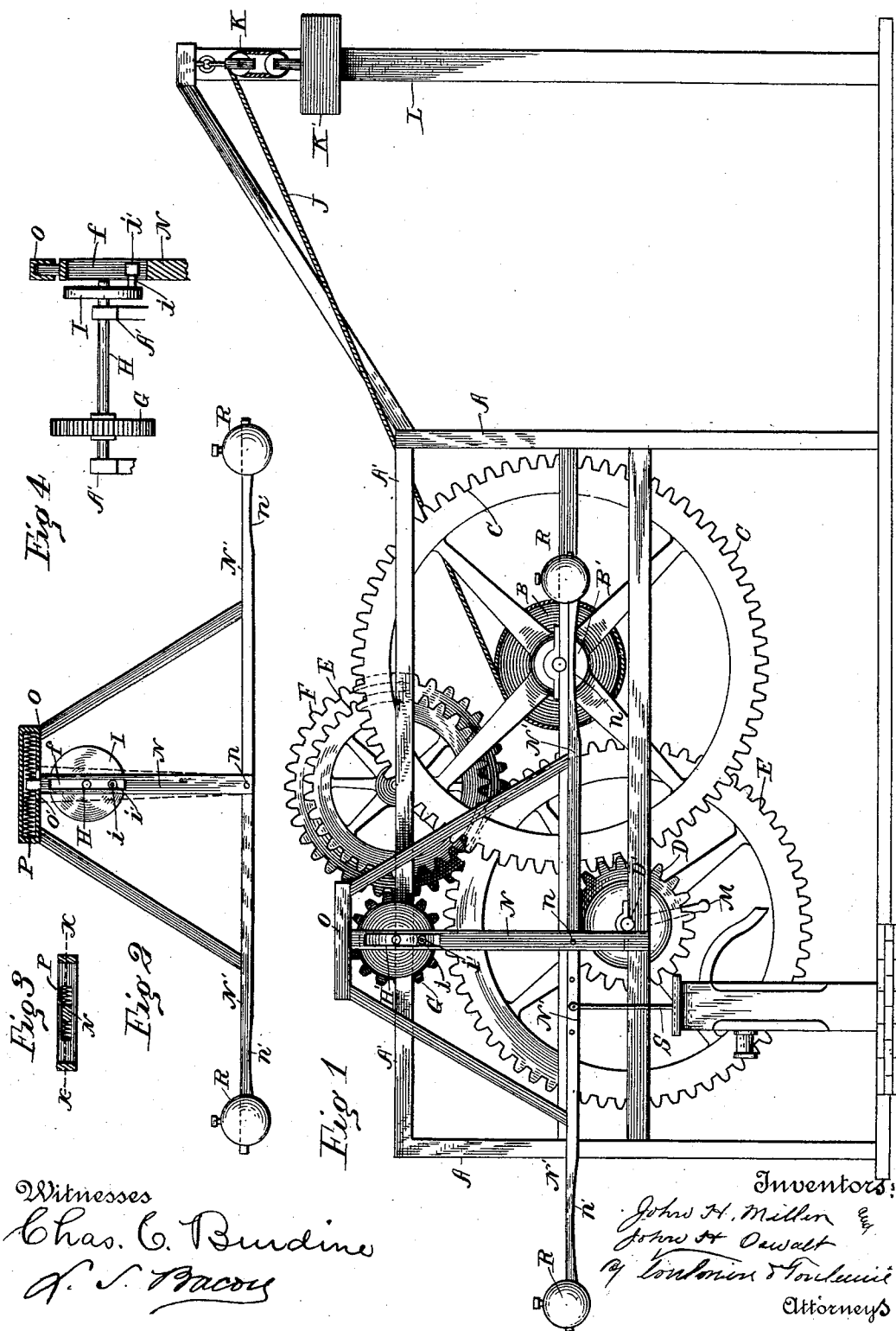
(No Model.)

J. H. MILLER & J. H. OSWALT.

PUMP MOTOR.

No. 482,800.

Patented Sept. 20, 1892.



UNITED STATES PATENT OFFICE.

JOHN H. MILLER AND JOHN H. OSWALT, OF CLAYTON, OHIO.

PUMP-MOTOR.

SPECIFICATION forming part of Letters Patent No. 482,800, dated September 20, 1892.

Application filed April 8, 1892. Serial No. 428,406. (No model.)

To all whom it may concern:

Be it known that we, JOHN H. MILLER and JOHN H. OSWALT, citizens of the United States, residing at Clayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Pump-Motors, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to improvements in pump-motors, and has for its object to regulate the motion obtained by a train of gears actuated by a descending weight, as shown in the accompanying drawings, in which similar
15 letters indicate similar parts.

Figure 1 is a side elevation. Fig. 2 is a detached view of the speed-regulating device, partly sectional. Fig. 3 is a detached view taken from the under side of the upper part
20 of the speed-regulator. Fig. 4 is a detached detailed view of a part of the speed-regulator in section, showing wheel G with its shaft and crank-disk I.

The letters A A' indicate the frame of the
25 machine.

B is a drum secured to the shaft B', upon which is mounted the gear-wheel C, which meshes into the pinion D, mounted on shaft D'. Upon this shaft is also secured the wheel E,
30 which meshes into the wheel E', mounted upon the same shaft as gear-wheel F. Gear-wheel F meshes into the wheel G on shaft H. This shaft carries a crank-disk I, provided with wrist-pin i, having mounted thereon an antifric-tion-roller i'. On B is wound a rope J, the free end
35 of which passes over a pulley K, attached to a suitable derrick L, and suspends the actuating-weight K'. A crank-handle M on shaft D' enables the weight to be wound up by turning the wheel E, together with its drum B.
40 When the weight is released, the whole train of gearing is put in motion. The wrist-pin on the disk-crank I enters a slot f in the vertical piece N and causes it, together with the
45 horizontal arm N', to vibrate on its pivot n when the machine is in motion. It will be

observed that the upper portion O of the speed-regulator is hollow and has a slot on the under side O' for the entrance of the top part of the piece N, and that a spiral spring
50 P bears against each side of the end piece N, and thereby prevents the jerk, jar, or uneven motion which would otherwise occur when the crank-disk I passes over its centers. The piece N has also an independent vibrating
55 motion on the pivot n, as indicated in dotted lines in Fig. 2. The horizontal bar N' is cut away at n' and n' in order to give it a spring when vibrating. It is also provided with adjustable weights R at each end, which we
60 have found to add to the efficiency of the whole arrangement.

A pump is shown in Fig. 1 of the drawings, in which the pump-rod S is pivoted to the vibrating bar N', and thereby a reciprocating
65 motion is given to the rod while the weight K' descends.

Having described our invention, what we claim as new, and desire to secure by Letters
Patent, is—

1. In a pump-motor, the combination, with
70 a train of gears, of a horizontal arm pivoted to the framework, a vertical slotted piece pivoted to the said horizontal arm, and springs limiting the vibration of said vertical slotted
75 piece, as shown herein and described.

2. In a pump-motor, the horizontal arm N', pivoted to the frame of the machine, adjustable weights R on said arm, the vertical slotted
80 piece N, the upper piece O, provided with springs P, in combination with crank-disk I and a train of gears actuated by a rope R and weight K', as herein described, and for the purposes set forth.

In testimony whereof we affix our signatures
85 in presence of two witnesses.

JOHN H. MILLER.
JOHN H. OSWALT.

Witnesses:

GEORGE H. WOOD,
R. JAY MCCARTY.