

No. 787,153.

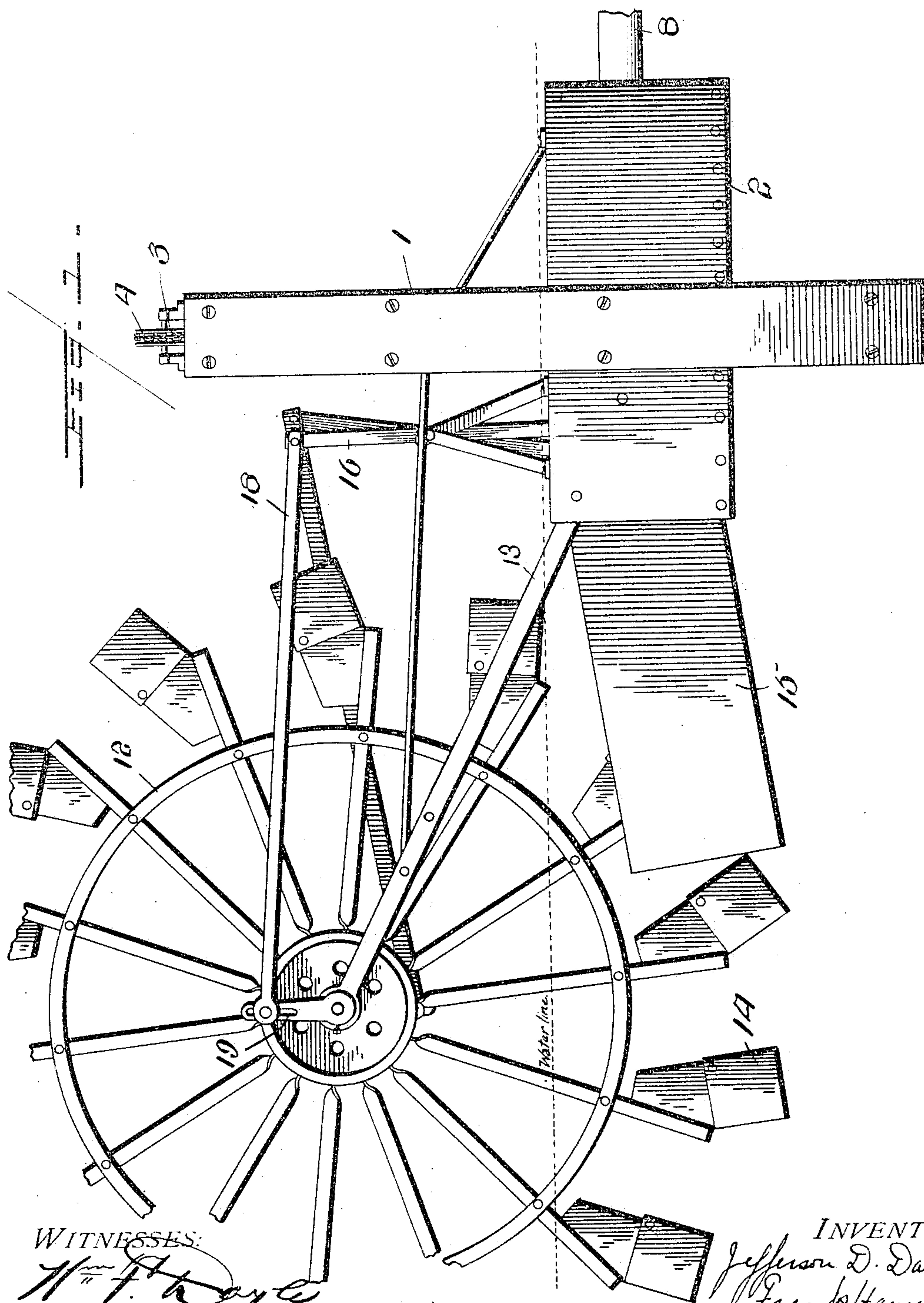
PATENTED APR. 11, 1905.

J. D. DAWSON & F. HAMILTON.

CURRENT OPERATED PUMP.

APPLICATION FILED JULY 7, 1903. RENEWED MAR. 13, 1905.

3 SHEETS—SHEET 1.



~~WITNESSES:~~

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William Tibbets

INVENTORS

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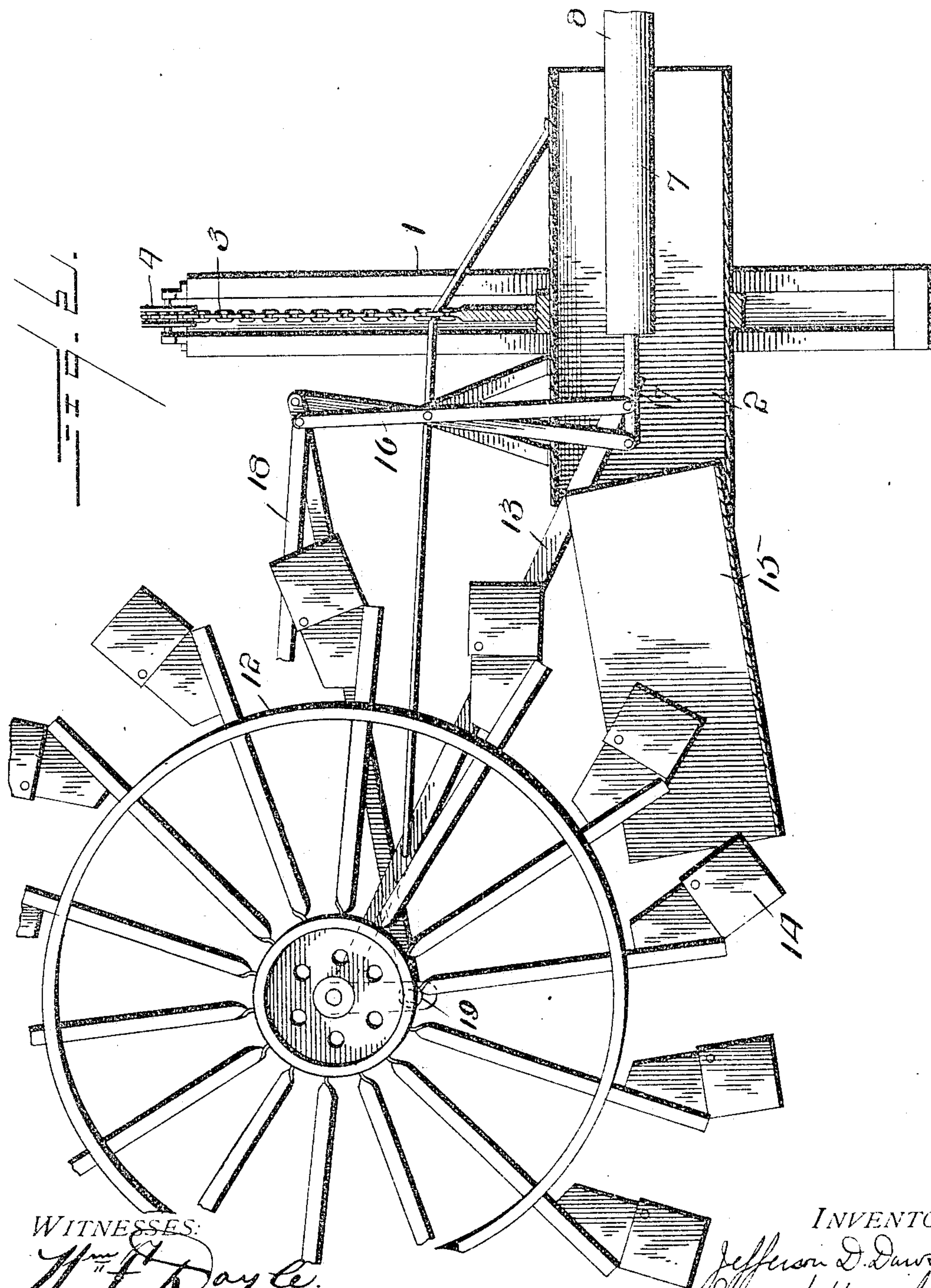
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3 SHEETS—SHEET 2.



WITNESSES:

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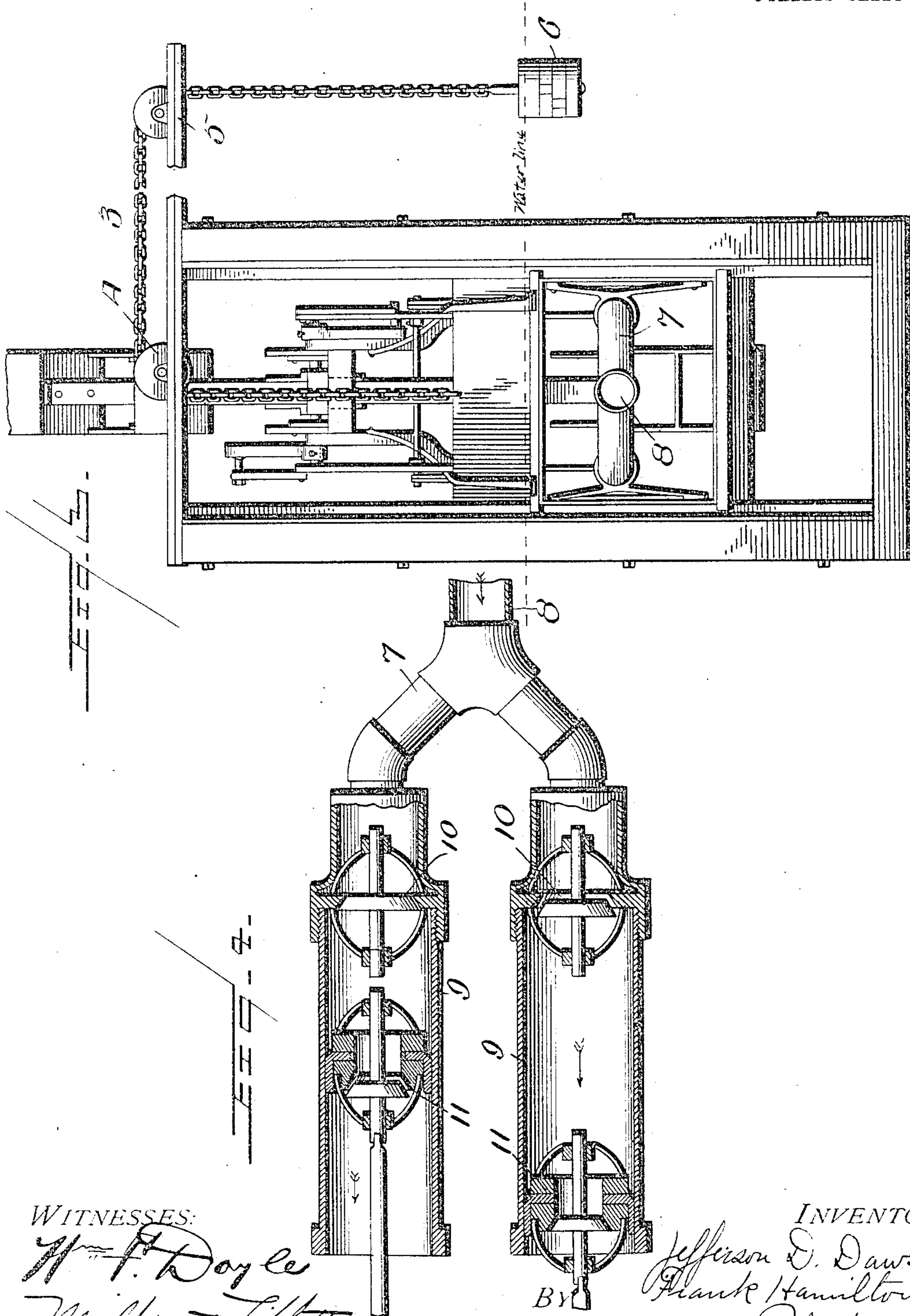
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3 SHEETS—SHEET 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JEFFERSON DAVIS DAWSON AND FRANK HAMILTON, OF BEARDSTOWN, ILLINOIS, ASSIGNORS OF ONE-THIRD TO FRED. B. DE GROOT, OF ROCK ISLAND, ILLINOIS.

CURRENT-OPERATED PUMP.

SPECIFICATION forming part of Letters Patent No. 787,153, dated April 11, 1905.

Application filed July 7, 1903. Renewed March 13, 1905. Serial No. 249,941.

To all whom it may concern:

Be it known that we, JEFFERSON DAVIS DAWSON and FRANK HAMILTON, citizens of the United States, residing at Beardstown, in the county of Cass and State of Illinois, have invented certain new and useful Improvements in Current-Operated Pumps, of which the following is a specification.

This invention has relation to current-operated submerged pumps; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of the invention is to provide a current-operated submerged pump adapted to draw water from or force water into an adjacent reservoir or receptacle.

In the accompanying drawings, Figure 1 is a side elevation of the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is an end view of the pump, and Fig. 4 is a horizontal sectional view of the pump.

The frame 1 is located in a body of running water, the casing 2 being adapted to move vertically in said frame 1. One end of the chain 3 is attached to said casing, the said chain then passing up over pulleys 4 and 5 and having attached at its other end the counterbalance-weight 6. The pump 7 is located within the casing 2 and is connected with the pipe 8, said pump being preferably composed of two cylinders 9 9, each having a check-valve 10 and a valved piston 11. The water-wheel 12 is journaled to the arms 13, which in turn are attached to the casing 2, said wheel being provided on its periphery with a number of paddles 14, said paddles being adapted to enter chute 15, which is also attached to the casing 2. The levers 16 are fulcrumed to the casing 2 and are pivoted at their lower ends to the piston-rods 17. To the upper end of each lever 16 is pivoted a pitman 18, the other end of which is pivoted to a crank on 19, attached to the wheel 12.

In operation the device works as follows: The casing 2 and the inclosed pump 7 are placed in a stream of running water. The water passing through the casing 2 and out through

the chute 15 comes in contact with the paddles 14 and revolves the wheel 12, which, through the pitman 18, levers 16, and the piston-rods 17, reciprocates the pistons 11. Previous to which, however, one end of the pipe 8 is placed in a reservoir, and as the said pistons 11 reciprocate they pump the water from the said reservoir, through the pipe 8, into the running stream. If, however, it is desired to pump water into the said reservoir, the valves in the pistons 11 and the check-valves 10 are reversed and the water is pumped from the running stream, through the pipe 8, into the reservoir.

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

1. A pump adapted to move vertically, a casing surrounding said pump and adapted to move with the same, a water-wheel suitably mounted and adapted to move vertically and simultaneously with said pump and casing, said pump being operatively connected with said wheel, said wheel being adapted to be operated by the water passing through said casing and a counterbalance for the vertically-moving parts.

2. A pump adapted to move vertically, a casing surrounding said pump and adapted to move with the same, a water-wheel suitably mounted and adapted to move vertically and simultaneously with said pump and casing, a chute connected at one end with said casing and receiving the paddles of said wheel at its opposite end, said pump being operatively connected to said wheel, said wheel being adapted to be operated by the water passing through said casing a counterbalance for the vertically-moving parts.

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

JEFFERSON DAVIS DAWSON.
FRANK HAMILTON.

Witnesses:

WM. FREY,
WILLIAM F. GULKER.