(No Model.) 3 Sheets—Sheet 1.

W. E. VERNON.

WATER MOTOR.

No. 420,257. Patented Jan. 28, 1890.

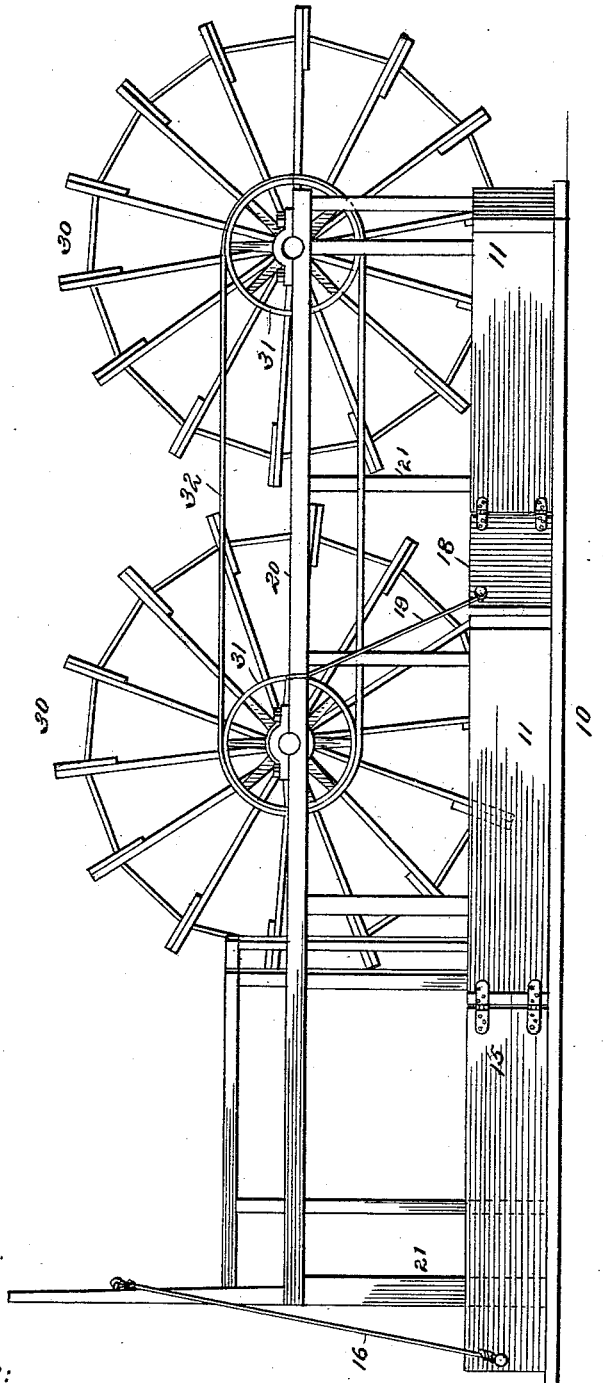

Fig. 1.

WITNESSES:
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C. Sedgwick

INVENTOR:
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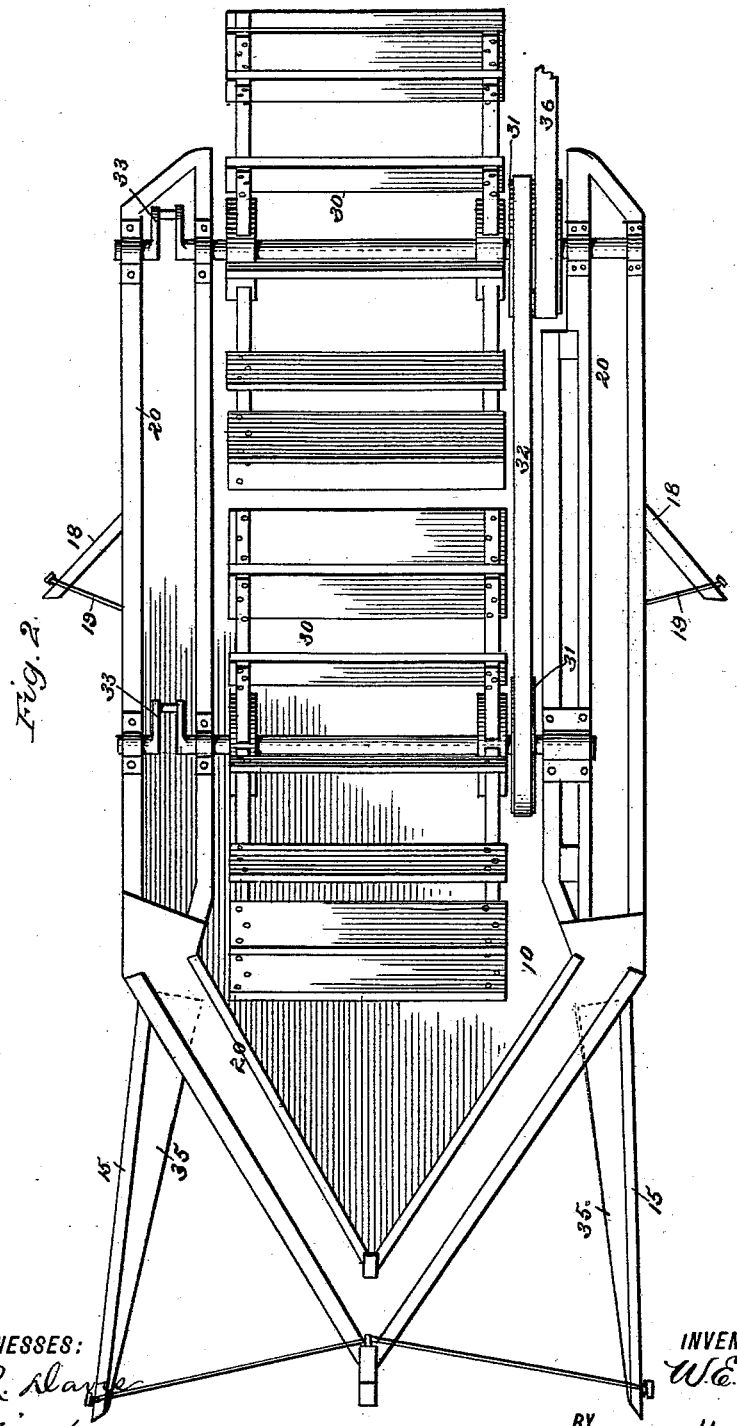
(No Model.) 3 Sheets—Sheet 2.

W. E. VERNON.

WATER MOTOR.

No. 420,257. Patented Jan. 28, 1890.

Fig. 2.



WITNESSES:
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(No Model.) 3 Sheets—Sheet 3.

W. E. VERNON.

WATER MOTOR.

No. 420,257. Patented Jan. 28, 1890.

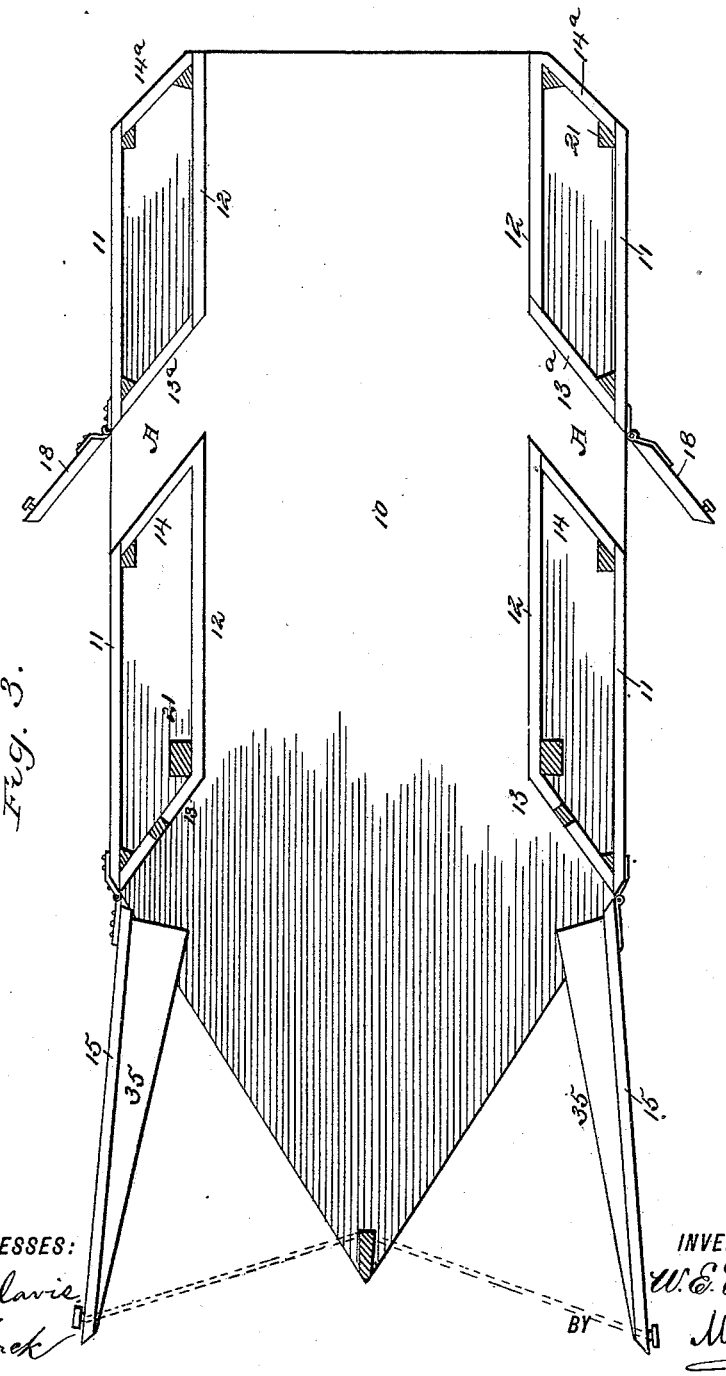

Fig. 3.

WITNESSES:

W. R. Mavis

C. Sedgwick

INVENTOR:

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ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM E. VERNON, OF SIPE SPRINGS, TEXAS.

WATER-MOTOR.

SPECIFICATION forming part of Letters Patent No. 420,257, dated January 28, 1890.

Application filed May 28, 1889. Serial No. 312,397. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM E. VERNON, of Sipe Springs, in the county of Comanche and State of Texas, have invented a new and Improved Water-Motor, of which the following is a full, clear, and exact description.

This invention relates to water-motors, the object of the invention being to provide for the transmission of the power generated by the revolution of two or more water-wheels to a single driving-shaft; and to the end named the invention consists of certain novel constructions, arrangements, and combinations of elements to be hereinafter fully described, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a side view of my improved water-motor. Fig. 2 is a plan view of the same, and Fig. 3 is a sectional plan view of the structure by which the artificial channel is produced.

In the drawings, 10 represents a heavy base-frame, to the side edges of which there are secured vertical planks 11, which run parallel with the side edges of the frame, and other vertical planks 12 and inclined planks 13, 13^a, 14, and 14^a, there being spaces or openings A between the planks 14 and 13^a. To the forward edges of the planks 11 are hinged gates 15, which may be adjusted as represented in the drawings, and there held to place by ropes or chains 16; or these gates may be closed to prevent the entrance of water to the space between the planks 12.

In connection with the passages A, I arrange gates 18, which, when expanded, serve as deflecting-plates to force the water into the channel between the planks 12, the gates 18 being held to place by ropes or chains 19.

Above the frame 10 is arranged a frame 20, that is supported by posts 21, that are placed in any convenient manner, and upon the frame 20 are journaled two or more water-wheels 30, the shaft of each wheel being provided with a pulley 31, upon which there runs a belt 32, the arrangement being such that the turning of one wheel will impart a corresponding motion to the other wheel.

Instead of using pulleys and a driving-belt, I might employ sprocket-wheels and a chain, or the wheels might be connected by intermediate gearing. Motion from the shafts of the wheels 30 is transmitted by means of cranks 33 or by any other proper mechanical connection, all of the power obtainable from the revolution of all of the wheels being, if desired, taken from one of the wheel-shafts; or, as shown in Fig. 2, each shaft may be provided with an independent crank.

By means of the above construction I am enabled to guide a large quantity of water into the channel in which the wheels dip, or by closing the gates I am enabled to cut off the water-supply to said channel, and thus stop the motor.

The gates 15 carry leaves 35, which overlap the base-frame and act to cause a heavy flow through the channel, preventing the water from passing downward beneath the frame 10.

This motor is designed more especially for use in the irrigation of land, or in the pumping of water to supply towns or villages; but it will of course be understood that the power might be utilized in any desired manner, the power being transmitted, as before stated, through the medium of the cranks or other proper mechanical devices—such, for instance, as a driving-belt 36, (see Fig. 2)—and although I have shown only two water-wheels, I desire it to be understood that any number of wheels could be arranged and connected.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A wheel-channel consisting of a base-frame 10, having its forward edges inclined toward each other, the vertical and spaced boards 11 and 12, the inclined boards 13, 14, 13^a, and 14^a, a passage A being formed between the inclined boards 14 and 13^a, the hinged gates 18, the hinged gates 15, provided with the leaves 35 and the ropes 19 and

16, substantially as herein shown and described.

2. In a water-motor, the combination, with a channel formed of the base 10, the vertical and spaced sides 11 and 12, having the passage-ways A, the hinged gates 15 and 18, and the frame 20, of the water-wheels 30, journaled in the frame 20, one in rear of the other, and geared together, substantially as herein shown and described.

WILLIAM E. VERNON.

Witnesses:
J. E. EDGINGTON,
TEXAS WILLIAMSON.