No. 886,916. PATENTED MAY 5, 1908.

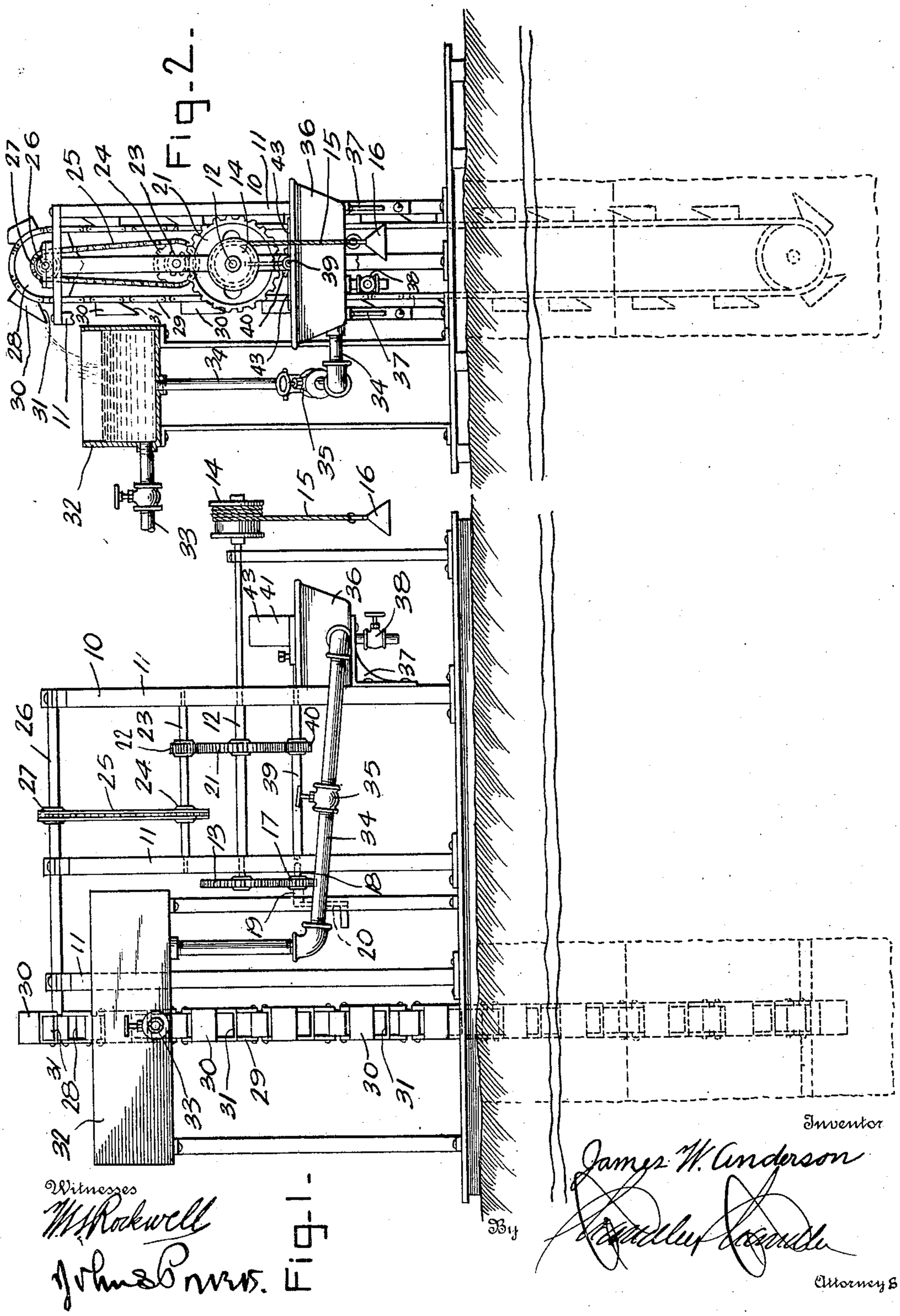
J. W. ANDERSON.

PUMP.

APPLICATION FILED SEPT. 24, 1907.

2 SHEETS—SHEET 1.

Fig. 2.



Witnesses
W. J. Rockwell
J. Thos. Burns.

Fig. 1.

Inventor
James W. Anderson
By Wheeler & Wheeler
Attorneys

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2 SHEETS—SHEET 2.

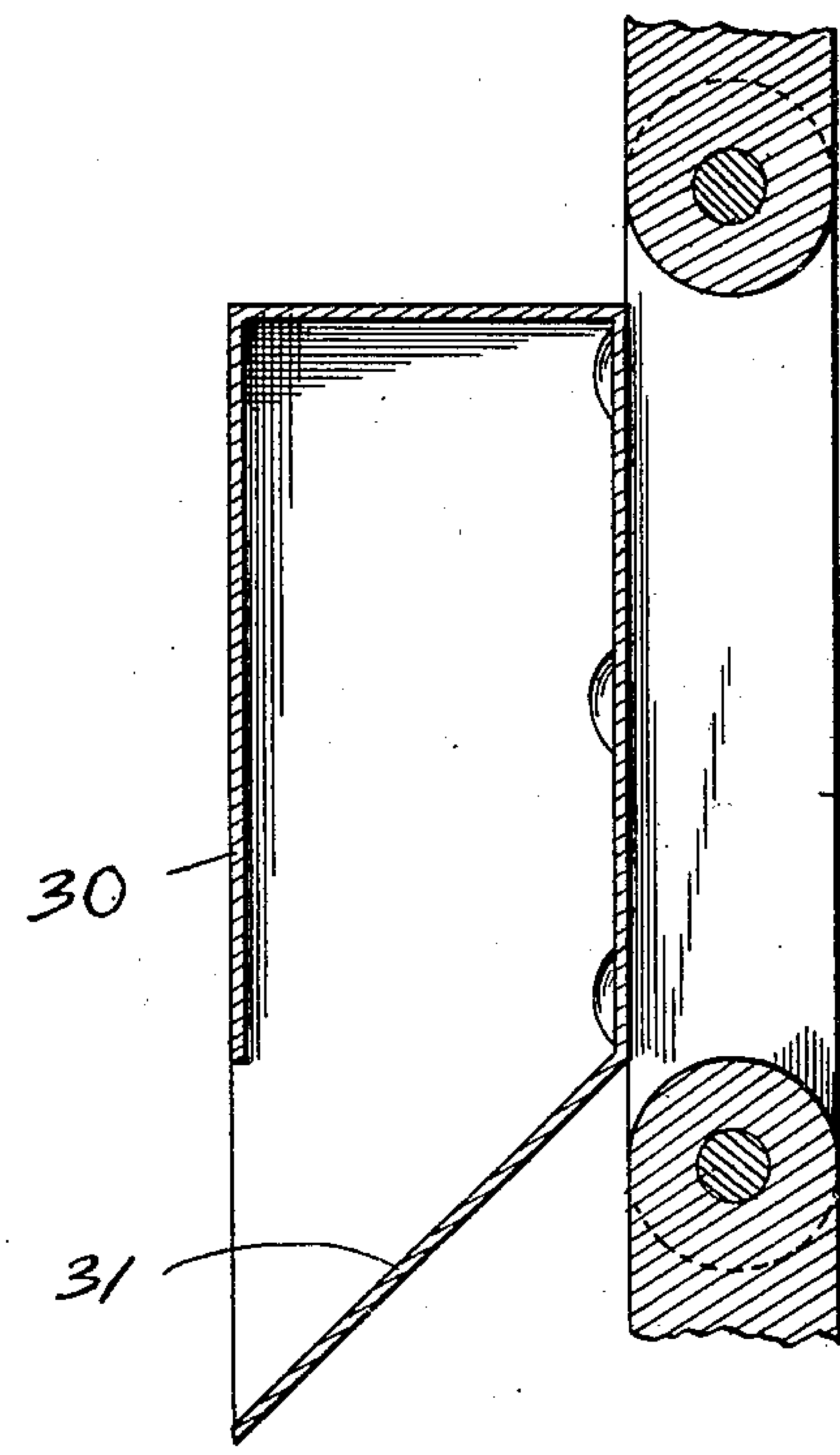
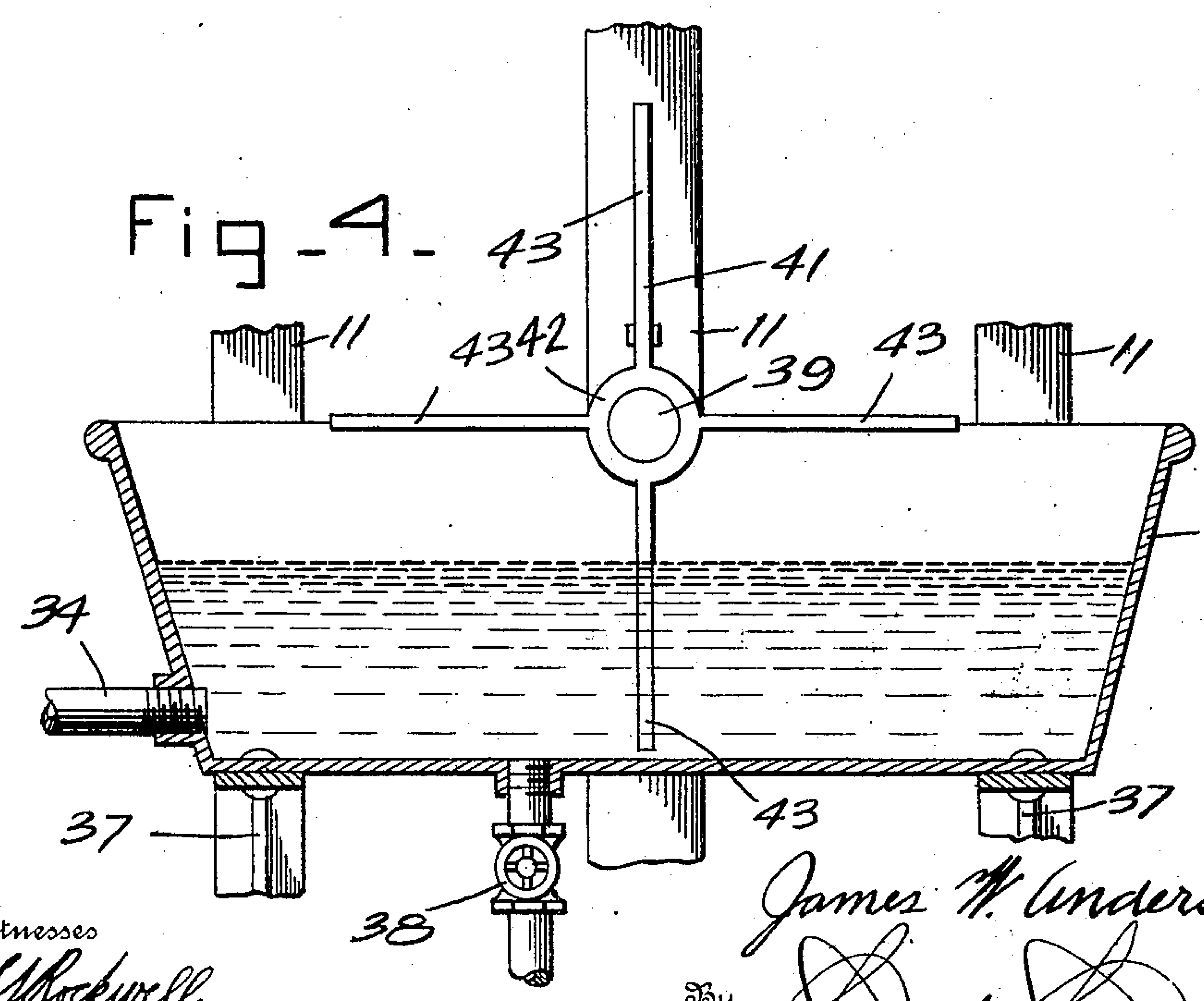


Fig-3-

Fig-4-



Witnesses

W. J. Rockwell

John S. Powers

Inventor

James W. Anderson

By Chandlee & Chandlee

Attorneys

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES W. ANDERSON, OF CROCKER, MISSOURI.

PUMP.

No. 886,916. Specification of Letters Patent. Patented May 5, 1908.

Application filed September 24, 1907. Serial No. 394,407.

To all whom it may concern:

Be it known that I, JAMES W. ANDERSON, a citizen of the United States, residing at Crocker, in the county of Pulaski, State of Missouri, have invented certain new and useful Improvements in Pumps; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in water elevators and it has particular reference to a water elevator of that type which includes an endless chain carrying buckets which discharge their contents at the termination of their upward travel with the chain.

In connection with a water elevator of the above type the invention aims as a primary object to provide a novel construction, combination, and arrangement of parts, the details of which will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts throughout the several views, wherein:—

Figure 1 is a side elevation illustrating the manner of use of a water elevator constructed in accordance with the present invention. Fig. 2 is a front elevation thereof. Fig. 3 is a detailed sectional view of one of the buckets, the others being counterparts in construction. Fig. 4 is a transverse sectional view through a basin for holding water to coöperate with a rotatable governor.

In the accompanying drawings the numeral 10 designates a supporting frame which includes vertical standards 11 constructed with bearings for a power shaft 12, the latter having projecting ends on one of which is carried a pinion 13 and on the other of which is carried a grooved pulley 14 to which is connected a rope 15 carrying a suspended actuating weight 16. The pinion 13 is in mesh with a smaller pinion 17 mounted on a stub shaft 18 and having a hub extension 19 for connection with a detachable crank handle 20, the handle 20 and pinion 17, being employed to rotate the shaft 12 and wind the rope 15 upon the pulley 14 after the said rope has been paid out to its fullest extent under the influence of the weight 16.

Between the standards 11, the shaft 12 carries a prime gear 21 meshing with a gear 22 on a counter shaft 23, the latter being likewise journaled in the standards 11 and carrying a sprocket wheel 24 which serves by means of a chain 25 to drive an elevator shaft 26. The shaft 26 is journaled in the standards 11 and carries a sprocket wheel 27 over which the chain 25 is trained and on its projecting end a sprocket wheel 28 over which a suspended chain 29 is trained, the chain 29 moving through a well A and being provided at selected intervals with buckets 30. Above the mouth of the latter inclined plates 31 are provided for deflecting the water when the buckets are inverted into a suitably supported tank 32 provided adjacent the upper end of the chain 29. Leading from the tank 32 is a service main 33 and a pipe 34 having a controlling valve 35. The pipe 34 discharges into a basin 36 supported at one side of the frame 10 by braces 37, the basin 36 having a drainage cock 38 whereby water may be readily drawn from said basin in regulating the depth thereof.

Journaled in the standards 11 below the shaft 12 is a shaft 39 carrying a gear 40 which is in mesh with the gear 21. The shaft 39 projects at one side thereof above the basin 36 and carries a governor 41, the latter being constituted of a sleeve 42 fixed to said shaft 39, and provided with radially projecting wings 43 which present their faces of major width to the water in the basin 36. It will be apparent that the speed of the chain 29 as the latter is continuously moved through the gearing described by the agency of the weight 16 is regulated faster or slower by decreasing or increasing the amount of water in the basin 36 so as to lower or raise the depth thereof and consequently present a lesser or greater degree of resistance area to the wings 43.

The invention is exceedingly useful on farms or isolated places where it is desired to maintain a constant fresh supply of water with a minimum expense of time and labor.

The invention is simple in its structural details, inexpensive to manufacture and practical and efficient in use.

From the foregoing description it will be seen that simple and efficient means are provided for accomplishing the objects of the invention, but, while the elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape and arrangement of the several parts without departing from the

spirit and scope of the invention as defined in the appended claims.

What is claimed is:—

An apparatus of the type set forth comprising a supporting frame, a main shaft journaled therein, an elevator shaft, gearing between said main shaft and said elevator shaft, a sprocket wheel carried by said elevator shaft, a suspended chain trained over said sprocket wheel, buckets carried by said chain, a tank arranged to receive the water discharging from said buckets, a basin supported adjacent said frame, a valved pipe between said tank and said basin, a drainage cock carried by said basin and a rotatable governor driven from said main shaft and including radially projecting wings designed to have movement through the water in said basin.

In testimony whereof, I affix my signature, in presence of two witnesses.

JAMES W. ANDERSON.

Witnesses:
W. H. FITS,
CHAS. OUSLEY.