

J. & W. S. SEAMAN.
WATER ELEVATOR.
APPLICATION FILED JULY 5, 1911.

1,035,055.

Patented Aug. 6, 1912.

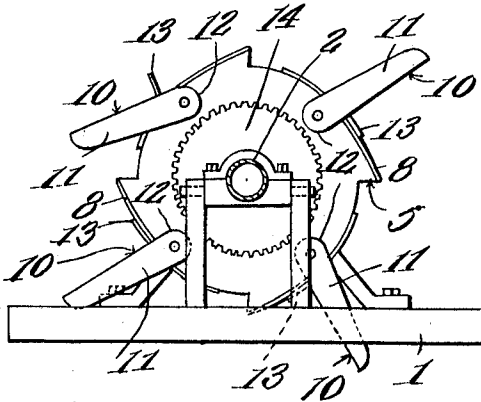


Fig. 1.

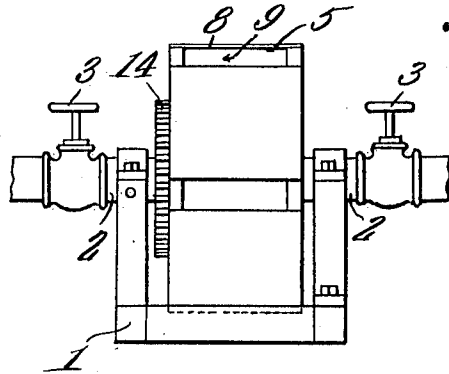


Fig. 2.

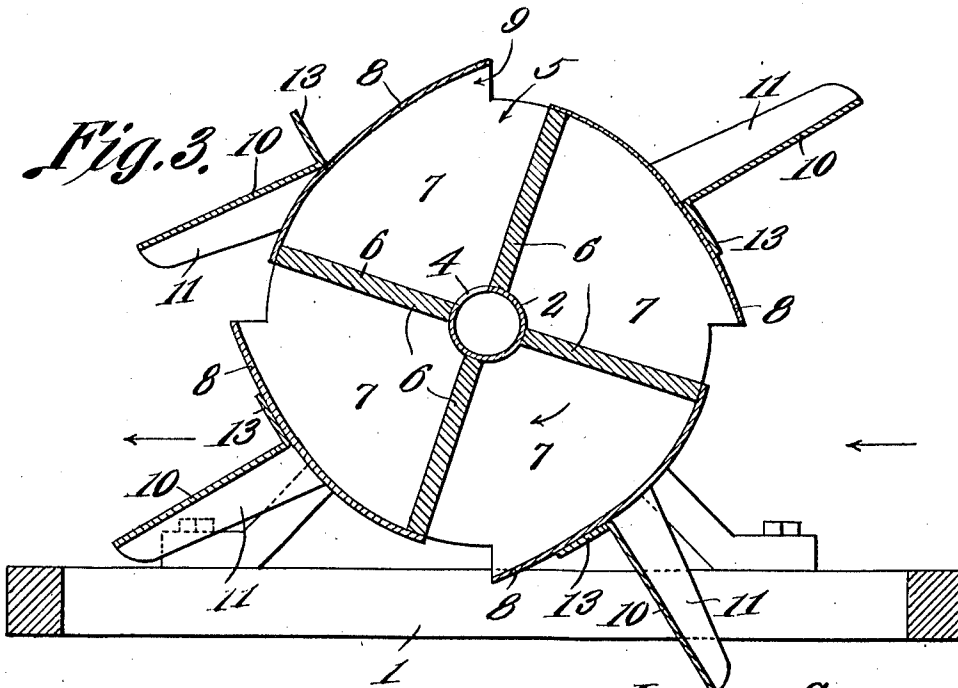


Fig. 3.

Witnesses

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UNITED STATES PATENT OFFICE.

JAMES SEAMAN AND WALTER S. SEAMAN, OF BAKER, MONTANA.

WATER-ELEVATOR.

1,035,055.

Specification of Letters Patent.

Patented Aug. 6, 1912.

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To all whom it may concern:

Be it known that we, JAMES SEAMAN and WALTER S. SEAMAN, citizens of the United States, residing at Baker, in the county of Custer, State of Montana, have invented a new and useful Water-Elevator, of which the following is a specification.

This invention relates to a water elevator and its object is to provide a device of this type adapted to be placed within a current of water and to be propelled thereby so as to elevate portions of the water and direct the same into a delivery pipe.

A further object is to provide a machine of this character which is compact in construction, will not readily get out of order, and which will operate easily and produce a practically continuous flow of water through the delivery pipe.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention. In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the machine. Fig. 2 is a front elevation thereof, the paddles being removed. Fig. 3 is an enlarged central longitudinal section through the water elevator.

Referring to the figures by characters of reference 1 designates a supporting structure adapted to be mounted in a body of water and this structure has a discharge pipe 2 secured thereon and held against rotation. Said pipe may be formed with valves 3 whereby the flow of water there- through may be controlled and that portion of the pipe above the structure 1 constitutes a bearing for the revoluble portion of the machine. A longitudinal slot 4 is formed in the top of this bearing portion of the pipe, as clearly indicated in Fig. 3.

The revoluble portion of the machine consists of heads 5 connected by radial partitions 6, these partitions and heads forming separate pockets or buckets 7 which are out of communication with each other but which are designed, during the rotation of the

heads, to move successively into communication with the slot 4. The peripheral portions of the heads 5 are connected by arcuate eccentrically disposed plates 8, each plate extending from the outer end of one of the partitions 6 to a point adjacent one of the next adjoining partitions, there being inlet openings 9 formed between the outermost edge portions of the plates 8 and the adjacent partitions 6 whereby water is free to enter the pockets 7. Wings 10 are mounted on the outer faces of the plates 8 and have side flanges 11 which extend inwardly from the wings to form ears 12 bearing upon the outer sides of the heads 5. These ears are pivotally connected to the heads and stop flanges 13 project from the wings and are designed to bear against the plates 8 so as to limit the swinging movement of the wings in one direction relative to the plates 8. A gear 14 may be secured to one of the heads 5 for the purpose hereinafter set forth.

It will be apparent that when the present machine is partly submerged in a moving body of water, the current will act successively upon the wings 10 so as to rotate the hoisting drum formed by the heads 5 and the plates 8, the outermost or free edges of the plates, during this rotation, advancing against the body of water and scooping it up into the pockets 7 so as to fill said pockets. As these pockets are filled, they are brought upwardly into communication with the slot 4 whereupon the contents of the pockets flow downwardly through the slot into pipe 2 which conveys it to the point or points of use. Should the water elevator be placed in a still body of water, the wings 10 can be removed and the drum rotated by means of a gear, not shown, meshing with gear 14 and actuated by any suitable power.

What is claimed is:—

1. A water elevator including a station- ary delivery pipe having an inlet opening in the upper portion thereof only, a drum mounted for rotation upon said pipe and having a plurality of radial partitions forming non-communicating pockets therein, the outer or curved wall of each pocket being cut away at the advancing end thereof to form a circumferential inlet and an outstanding radial inlet, and means for rotating the drum to bring said pockets into communication successively and one at a time with the opening in the delivery pipe.

2. A water elevator including a stationary delivery pipe having an inlet opening in the upper portion thereof only, a drum mounted for rotation upon said pipe and
5 having a plurality of radial partitions forming non-communicating pockets therein, the outer or curved wall of each pocket being cut away at the advancing end thereof to
10 form a circumferential inlet, and an outstanding radial inlet, means for rotating the drum to bring said pockets into communication successively and one at a time with the
opening in the delivery pipe, blades pivotally connected to and movable with the
15 drum, said blades being mounted on the

peripheral portion of the drum and extending throughout the length thereof, stop flanges extending from the inner or hinged ends of the blades and adapted to bear throughout their lengths, upon the peripheral portion of the drum when the blades
20 are in active position.

In testimony that we claim the foregoing as our own, we have hereto affixed our signatures in the presence of two witnesses.

JAMES SEAMAN.

WALTER S. SEAMAN.

Witnesses:

L. A. CONSER,

F. C. BUNN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."