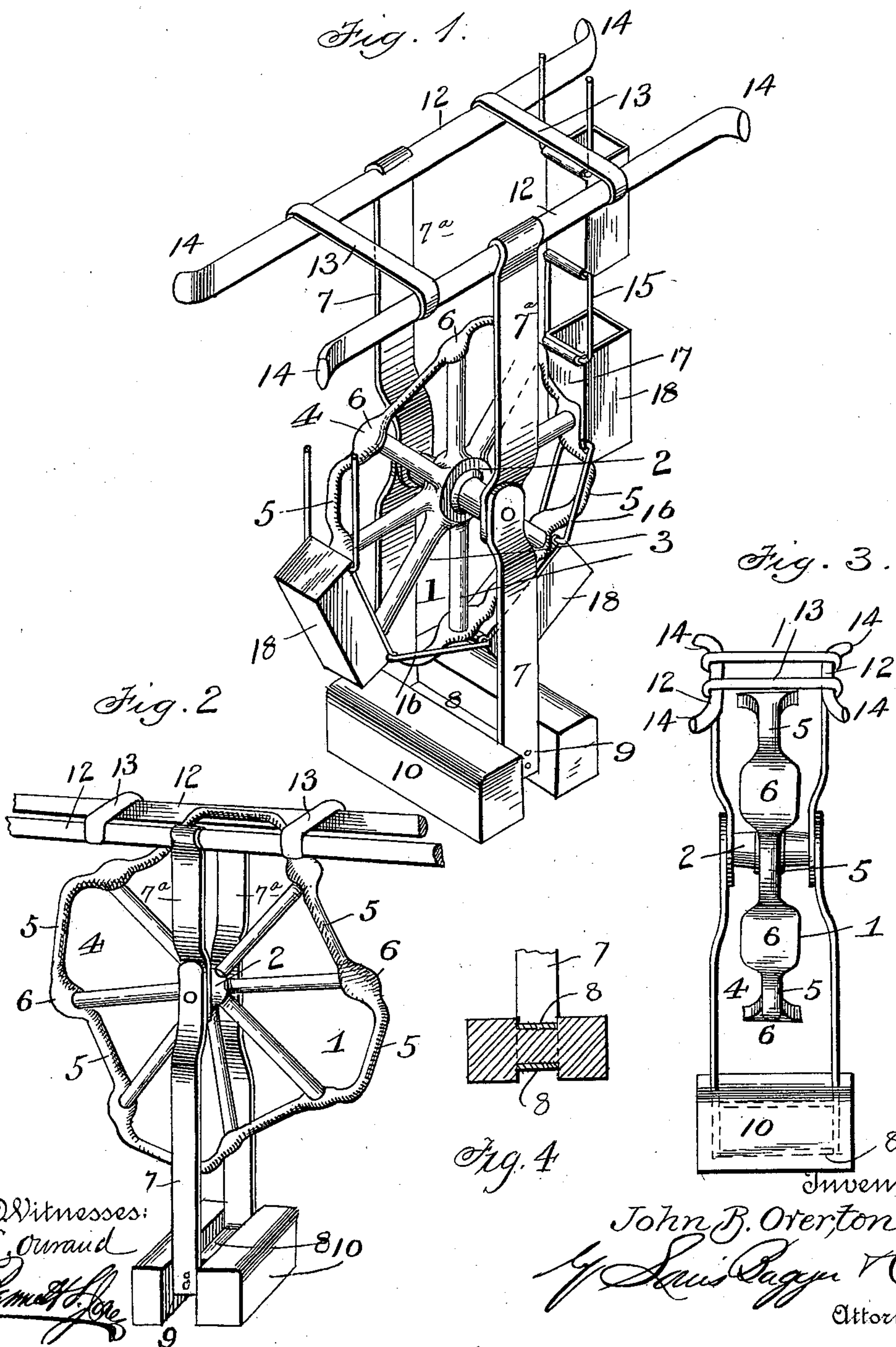


(No Model.)

J. B. OVERTON.  
WATER ELEVATOR.

No. 601,980.

Patented Apr. 5, 1898.



Witnesses:

J. L. Ormrod

*[Signature]*

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John B. Overton

*[Signature]*

Attorneys.



# UNITED STATES PATENT OFFICE.

JOHN B. OVERTON, OF PORT JEFFERSON, NEW YORK.

## WATER-ELEVATOR.

SPECIFICATION forming part of Letters Patent No. 601,980, dated April 5, 1898.

Application filed June 12, 1897. Serial No. 640,548. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. OVERTON, a citizen of the United States, and a resident of Port Jefferson, in the county of Suffolk and State of New York, have invented certain new and useful Improvements in Water-Elevators; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to water-elevators of that class or description in which an endless chain provided with buckets passes around a sprocket-wheel located in a well, whereby the water is not only elevated, but is also agitated and aerated in the well for purifying the same.

The object of the invention is to provide an improved construction of water-elevator of the above character which shall possess superior advantages with respect to efficiency in use.

In the accompanying drawings, Figure 1 is a perspective view showing the lower sprocket-wheel, which is suspended in a well, and also showing a portion of the endless chain and buckets secured thereto. Fig. 2 is a similar view, the chain being removed. Fig. 3 is an end elevation. Fig. 4 is a detail sectional view of the weight.

In the said drawings the reference-numeral 1 designates the sprocket-wheel, comprising the hub 2, the spokes 3, and rim 4, all cast integral. The said rim comprises the reduced portions 5, with which the spokes are connected, and the outwardly-extending widened and flattened portions 6, alternately arranged with respect to said reduced portions. Said wheel is journaled in two vertical arms 7, the lower ends of which extend down below the wheel and are connected by transverse bars 8, which are located in grooves 9 in the upper and lower sides of a weight 10.

The numeral 7<sup>a</sup> designates two upwardly-extending arms, to which are secured two parallel horizontal bars 12, connected near

their points of attachment to the said arms 50 by cross-bars 13. The outer ends of the bars 12 are made flaring or curved outwardly, as seen at 14. They may also be made straight with pointed or rounded ends.

The vertical and horizontal arms and cross-bars above mentioned may also be made of rod or wire in one or more pieces.

The numeral 15 designates the endless chain, consisting of a number of links 16 and a corresponding number of alternately-arranged plates 17. These links are pivotally connected with loops formed at the ends of said plates, and secured to the latter are buckets 18.

The operation is as follows: The endless chain passes around a wheel (not shown) at the well-curb and also around the sprocket-wheel 1, and the latter is then lowered into the well and is suspended in the loop of the chain. The weight 10 will hold the arms 7 in a vertical position. The chain is then actuated, when the loops at the ends of the plates 17 will engage with the shoulders of the extended portions of the rim of the sprocket-wheel, as will be seen in Fig. 1. It will be noticed that the chain and buckets pass between the ends of the bars 12, which guide it in its movement and prevent it from running off the wheel. By this means the wheel need not be provided with flanges, as is ordinarily the case. This construction greatly lessens the wear on chain and buckets.

In case the chain should break and the sprocket be precipitated to the bottom of the well it can readily be grasped by a hook and raised.

Having thus fully described my invention, what I claim is—

In a water-elevator of the character described, the combination with the sprocket-wheel, the rim of which is composed of alternate reduced and enlarged portions at different distances from the shaft or axle thereof, of the vertical downwardly-depending arms through which the journals of the axle pass, the weight at the lower end thereof having a groove in the upper and lower side, the bars located in said grooves and secured to said

arms, the upwardly-extending arms, through  
which said journals also pass, the horizontal  
arms secured thereto, the ends of which are  
curved outwardly, the cross-bars connected  
5 with said horizontal bars and the endless  
chain and buckets, substantially as specified.

In testimony that I claim the foregoing as

my own I have hereunto affixed my signature  
in presence of two witnesses.

JOHN B. OVERTON.

Witnesses:

CHARLES P. RANDALL,  
SYLVESTER BROWER.