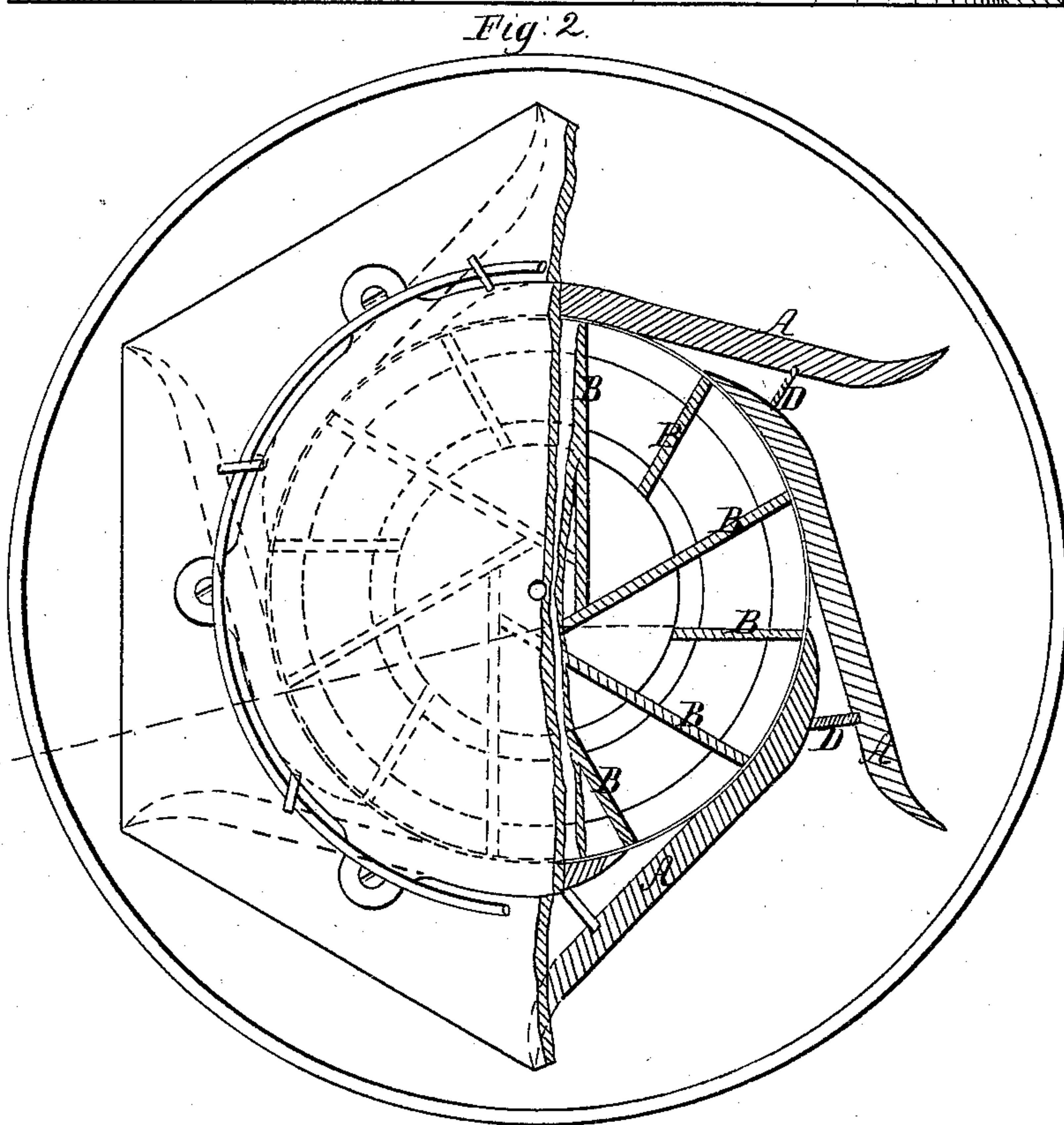
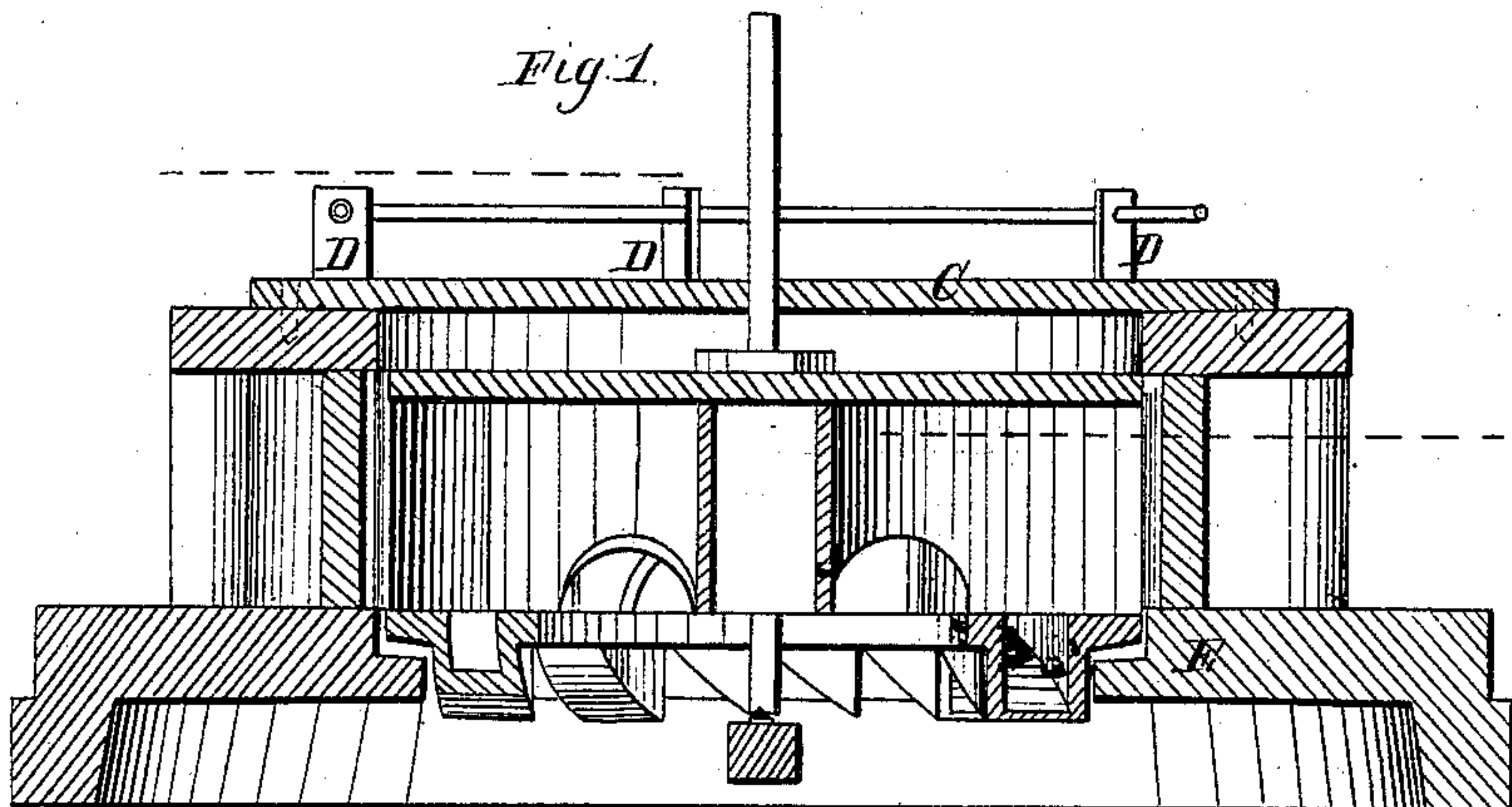


S. D. Taylor
Turbine Water Wheel
No 93,767 *Patented Aug. 17, 1869.*



Witnesses;
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United States Patent Office.

S. D. TAYLOR, OF HAZLETON, PENNSYLVANIA.

Letters Patent No. 93,767, dated August 17, 1869.

IMPROVEMENT IN WATER-WHEELS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, S. D. TAYLOR, of Hazleton, in the county of Luzerne, and State of Pennsylvania, have invented a new and useful Improvement in Turbine Water-Wheels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

This invention relates to new and useful improvements in that class of water-wheels known as "turbines;" and consists in a device for exposing the wheel for the removal of obstructions, and for other purposes, and in the manner of guiding the water on to, and discharging it from the buckets, whereby many advantages are secured, as will be hereinafter more fully described.

Figure 1 is a vertical section of the wheel through the line *xx* of fig. 2.

Figure 2 is a top or plan view, showing the chutes and a portion of the wheel.

Similar letters of reference indicate corresponding parts.

A represents the chutes, which may be more or less in number.

The ends of the chutes are curved, the inner end so as to correspond with the perimeter of the wheel, and the outer end, for giving the water the proper direction to the wheel.

B represents the buckets, which are so placed that they receive the water at right angles with the face of the chute, and so that the water, as the wheel revolves, will be thrown to the outer circumference of the wheel.

C represents a deck or cover, which may be readily removed, for uncovering and removing the wheel, if desired, for the removal of any obstacle, or for other purposes.

D represents the gate, which works in grooves in the chutes, as seen in the drawing. The gate may be made to close all the water-apertures simultaneously, or otherwise, as may be desired.

It will be seen that the buckets B do not radiate from the centre of the wheel, but from a circle around the centre, thereby giving the buckets the proper angle for producing the best effect from the water.

E represents the bottom of the flume. In putting in the wheel, it is only necessary to cut a hole through the bottom, as seen in the drawing, and place the wheel directly over it, and, when properly secured, it is ready to run.

The water is discharged from the bottom of the wheel through the second series, or reverse buckets, where reaction is produced by such discharge, in the usual manner.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

The arrangement of the chutes A, with relation to each other and to the buckets B, said chutes forming funnels, leading to the buckets, whereby the water is directed to the outer ends only of the latter, in the manner described, for the purpose specified.

S. D. TAYLOR.

Witnesses:

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