

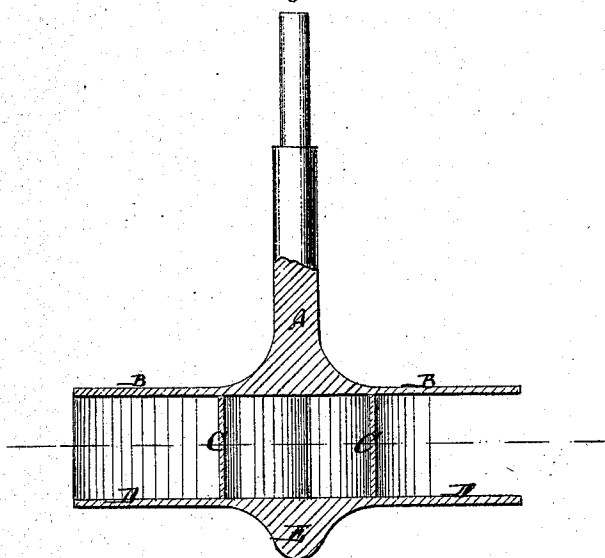
*C. D. Wright,*

*Water Wheel.*

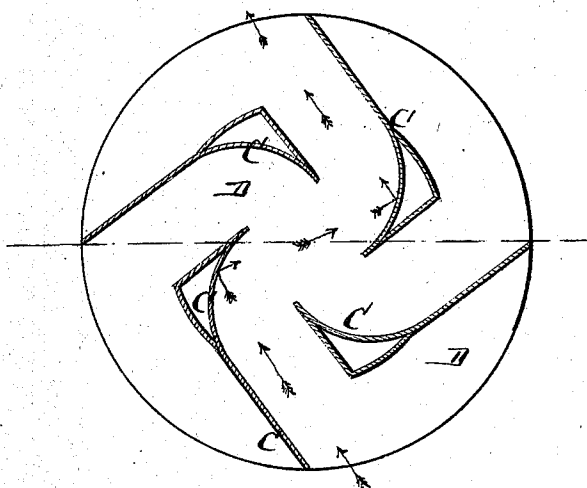
*No. 105,536.*

*Patented July 19, 1870.*

*Fig. 1*



*Fig. 2.*



**Witnesses:**

*L. J. Mabey*  
*Alex. F. Roberts*

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*C. D. Wright*

**PER**

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# United States Patent Office.

CHARLES D. WRIGHT, OF LEESVILLE, CONNECTICUT.

Letters Patent No. 105,536, dated July 19, 1870.

## 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, CHARLES D. WRIGHT, of Leesville, in the county of Middlesex and State of Connecticut, have invented a new and improved Water-Wheel; 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 drawing forming part of this specification.

Figure 1 represents a vertical central section of my improved water-wheel.

Figure 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

This invention has for its object so to construct water-wheels that the full power of the water may be utilized.

The invention consists in making the wheel entirely open in the center, so that the water passing through it will not be obstructed by a shaft, hub, or other central structure.

The invention consists, also, in so shaping the buckets that the water will act on different parts of them as it passes through the wheel. Thereby the full power of the water will be utilized. Where friction is produced, power will also be developed.

A, in the drawing, represents the shaft to which my water-wheel is secured.

To the lower end of the shaft is mounted, or upon it is formed a plate, B, which constitutes the upper plate of the wheel.

C C are the buckets.

The same serve to connect the top plate B of the wheel with the bottom plate D of the same, so that the central obstruction produced by the ordinary hub, cone, or shaft, will not be in the wheel.

To the under side of the plate D is secured a short downward-projecting stud, E, which constitutes the lower part of the shaft, resting on the step or other support.

The buckets C are of peculiar form, as shown in fig. 2. Their inner parts are curved, being almost quarters of circles, while their outer parts are straight, being tangents to the curves, as shown.

The water, entering between two buckets, strikes the hollow of the one along which it enters, and applies its power thereby to the wheel.

From the concave surface it is thrown off toward the center of the wheel against the concave surface of the opposite bucket. The power remaining in it is thus applied and utilized on the second bucket.

The water finally passes out about opposite to where it entered the wheel.

The course of the water is indicated by the arrow in fig. 2. It will be seen that this advantageous course of the water, and the complete absorption of its power, could not be obtained if the central part of the wheel were obstructed in the usual manner.

Having thus described my invention,

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

1. The water-wheel, composed of the plates B D and buckets C, the space between the buckets being not obstructed by a central shaft or hub, as set forth.

2. A series of buckets C, curved on the inner, and straight on the outer side thereof, to allow a column of water to act simultaneously on two or more of them, when arranged as set forth.

CHARLES D. WRIGHT.

Witnesses:

WM. F. WRIGHT,  
C. B. WRIGHT.