

W. V. Martin,

Water Wheel.

No. 108,372.

Patented Oct. 13. 1870.

Fig. 1.

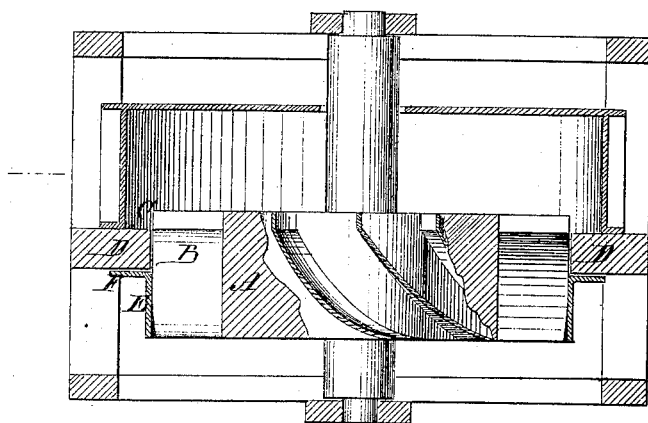
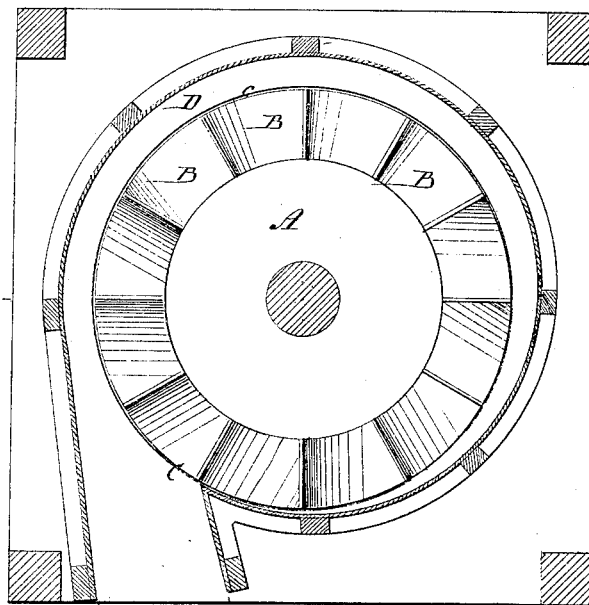


Fig. 2.



Witnesses:

C. Haettig.
L. S. Mabee

Inventor:

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UNITED STATES PATENT OFFICE.

WILLIAM V. MARTIN, OF WAVERLY, OHIO.

IMPROVEMENT IN TURBINE WATER-WHEELS.

Specification forming part of Letters Patent No. **108,372**, dated October 18, 1870.

To all whom it may concern:

Be it known that I, WILLIAM V. MARTIN, of Waverly, in the county of Pike and State of Ohio, have invented a new and useful Improvement in 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 drawing, forming part of this specification.

This invention relates to improvements in water-wheels; and consists in an improved arrangement, with the buckets of the wheel and the bottom of the scroll-case, of a vertical ring or band and a horizontal flange, for maintaining a tight joint with the case and confining the water upon the buckets, all as hereinafter described.

Figure 1 is a sectional elevation of my improved wheel, and Fig. 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

A represents the disk or center for the support of the buckets B, which are arranged obliquely on the periphery of A, to be acted upon mainly by the downward pressure of water, which passes between the periphery of

A and the wall C of the bottom plate D of the wheel-case. Below the bottom D the buckets, which extend considerably beyond said bottom, are provided with a ring or hoop, E, which incloses the spaces between them, and confines the water until it arrives at the lower ends. This band is provided with a horizontal flange, F, at the top of which fits up against the lower side of the bottom D of the case, and makes a tight joint between the wheel and the case, which prevents the escape of water, except over the buckets.

By this arrangement the wear between the wheel and the case may be taken up from time to time, the wheel being mounted on a vertically-adjustable step, so that the water may be greatly economized.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The combination, with the buckets B and the bottom D, of the wheel-case of the band E and flange F, substantially as specified.

WILLIAM V. MARTIN.

Witnesses:

JONATHAN SHULL,
ABRAHAM BARTHAUG.