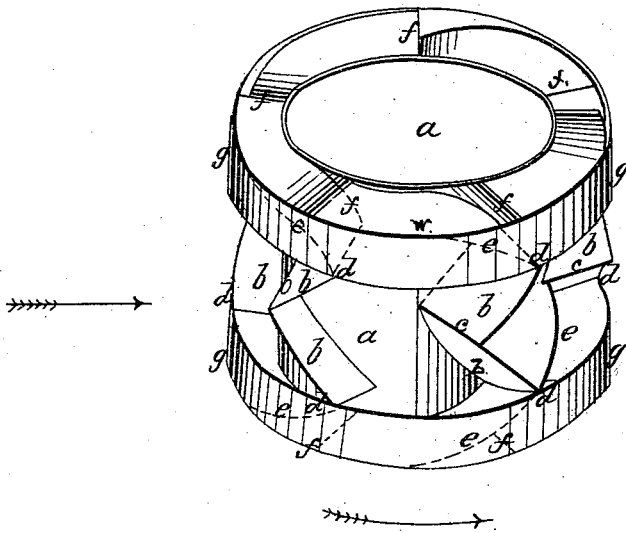


*T. Rose,*  
*Water Wheel,*  
*N<sup>o</sup> 48,724. Patented July 11 1865.*



*Witnesses;*  
*Chas. T. Lister*  
*J. M. D. Lister*

*Inventor;*  
*Timothy Rose*

# UNITED STATES PATENT OFFICE.

TIMOTHY ROSE, OF CORTLANDVILLE, NEW YORK.

## IMPROVEMENT IN WATER-WHEELS.

Specification forming part of Letters Patent No. 48,724, dated July 11, 1865.

*To all whom it may concern:*

Be it known that I, TIMOTHY ROSE, of the town of Cortlandville, in the county of Cortland and State of New York, 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 of the construction and operation of the same, reference being had to the accompanying drawing, making a part of this specification, in which said drawing a perspective view of said improvement is given.

The wheel is represented in a vertical position, and to revolve in the direction indicated by the lower arrow. It is used with a scroll fitted in the ordinary manner.

*a a* is the drum or hub of the wheel—say sixteen inches in length. Upon this hub I place angular floats or buckets *b b*, presenting the apex of the angle at *c c*, the angles being on, or nearly on, the central line passing around the hub. These I call the “central floats or buckets.” At *d d* these central buckets are joined by or to the outside buckets, (represented by dotted lines *e e*,) in the usual shape of buckets in reacting wheels, and discharging through the orifices at *f f*. Around the outside of these end or reversed buckets is placed a rim, *g g*, of the same depth with these end buckets. The water is let onto the wheel at the angles in the central floats and in the direction indicated by the upper arrow.

The main advantages I claim for this wheel are:

First. That it may be used in a vertical or horizontal position, and it will revolve in one direction or the other by reversing or changing ends.

Second. That there is increased power at-

tained, in that there is first a direct action of the water upon the central buckets, and, second, both a direct and reacting force or action upon the end or reversed buckets. In other words, the power obtained from the action of the water upon the central floats is in addition to the power obtained from the usual reacting-wheel, which the end buckets in this wheel are intended to represent.

Third. This wheel, by means of the angular central floats, itself divides the column of water as it comes onto the wheel. Heretofore this division has been effected by a stationary dividing-block in the scroll. Such a block retards the passage of water to the wheel and detracts more or less from its velocity and power. Here the angular bucket acts as a dividing-block, and one that constantly moves with the wheel.

Fourth. By enlarging the issues upon the one end of the wheel, and a corresponding movement of the angles of the central floats farther from such enlarged orifices, the column of water may be divided unequally, and the wheel thus be balanced, the pressure of the water being thus used to keep the wheel from lifting or bearing down or pressing to one side or the other when used horizontally.

What I claim, and desire to secure by Letters Patent, is—

The central angular floats or buckets, *b b*, in connection and combination with the reversed end buckets, *e e*, as above set forth, and working in the manner herein described.

TIMOTHY ROSE.

Witnesses:

CHAS. FOSTER,  
T. M. DORWIN.