

F. Post,
Water Wheel,

Nº 66,735,

Patented July 16, 1867.

Fig. 1.

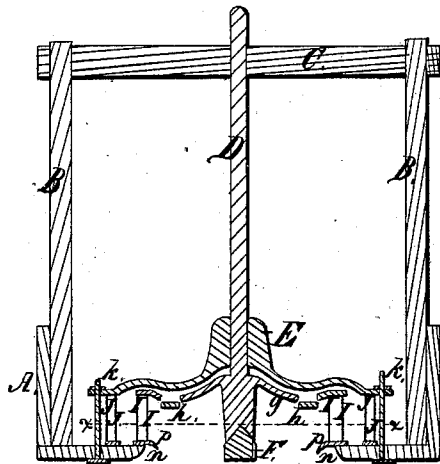


Fig. 2.

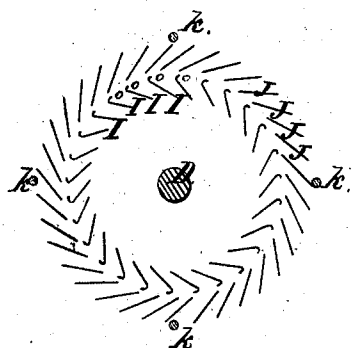


Fig. 3.

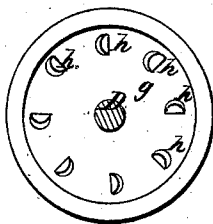


Fig. 4.



Witnesses:

A. Hayward
Geo. S. Chapin

Inventor.

Frederick Post
by Geo. S. Chapin.
att'y

United States Patent Office.

FREDRICK POST, OF PLANO, ILLINOIS.

Letters Patent No. 66,735, dated July 16, 1867.

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, FREDRICK POST, of Plano, in the county of Kendall, and State of Illinois, have invented an Improved Water-Wheel; 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 drawings and letters of reference marked thereon, making a part of this description, in which—

Figure 1 is a central sectional elevation of my water-wheel and the flume in which it operates.

Figure 2, a horizontal section of the wheel taken through fig. 1 at the line X X.

Figure 3, a plan view of the wheel with the cap removed.

Figure 4, an inverted or bottom view of a part of the lower rim of wheel, showing how the buckets terminate.

The nature of my invention consists in making buckets in the top of the wheel in addition to the buckets at the periphery, for the double purpose of giving the wheel motion and preventing friction, which would occur if no apertures were made in the top of the wheel to allow the dead water which usually accumulates between the case and wheel to escape; and in the use of a peculiar shaped bucket, having an inclination downward at the bottom, so as to allow the water to have a free centre discharge with the least possible amount of friction. I know that centre discharge-wheels have been made to run in cases before this, but consider that placing buckets in the top and periphery of a wheel is new in its application, and performs a function different from any heretofore used, for said wheel has the force of water applied to its periphery and top at the same time, and in such a manner that no circular motion of the water is necessary in the flume to give motion to the wheel, as the water at all points enters through the case with equal force.

In order to give a correct understanding of my invention, I have marked corresponding parts with similar letters, and will now give a detailed description.

A represents a common flume, in which my wheel operates, and B C the frame which supports shaft of my wheel, all of which I consider common, and only use them as a matter of convenience in the usual manner, and am not particular as to how they are constructed, only so water is conveyed to wheel *g* and suitable mechanical appliances are used to hold it in position for use. This wheel *g* has a series of buckets, I I I I, &c., made fast to the top, shown at figs. 1 and 2, and also a common shaft, D, made to rest on step F in the usual manner. The peculiarity of my invention consists in constructing buckets *h* in the top of wheel *g*, which buckets are made a part of the top of wheel, and project downward, as seen at figs. 1 and 3, for the purpose of allowing the water accumulating between wheel *g* and case E to press upon buckets *h*, and assist in propelling wheel *g* instead of producing friction, as is now the case when no buckets *h* are used at the top of wheel. I make buckets I I I I, &c., with short curves *o o o o*, &c., (fig. 2,) in order to prevent water from flowing outward against the slats J J J J, &c., of case E, which would check the motion of wheel *g*, and turn the flanges of said buckets downward, as seen at *n*, figs. 1 and 4, for the purpose of allowing water to pass off of the same as soon as possible, thus relieving the wheel of pressure. I am not particular as to the material used, only so that the buckets are made thin and as light as possible. Case E is made to cover wheel *g*, and has slats J J J J, &c., placed a suitable distance apart to admit a proper quantity of water to pass through and to run wheel *g*. By means of this arrangement no rack is needed to keep flood-wood and extraneous matter out of wheel *g*, and no gate is required only the one used to admit water into flume A. The rim P, figs. 1 and 4, may be made separate from the top, *g*, and the buckets I I I I, &c., secured between in any desirable manner, as may also the case E and slats J J J J, &c.

Having thus fully described my invention, what I claim and desire to secure by Letters Patent, is—

The cap E, in combination with wheel *g*, having buckets *h* and I, the latter being curved downward at the bottom, the whole being arranged substantially as and for the purposes set forth.

Witnesses:

GEO. L. CHAPIN,
A. HAYWARD.

FREDERICK POST.