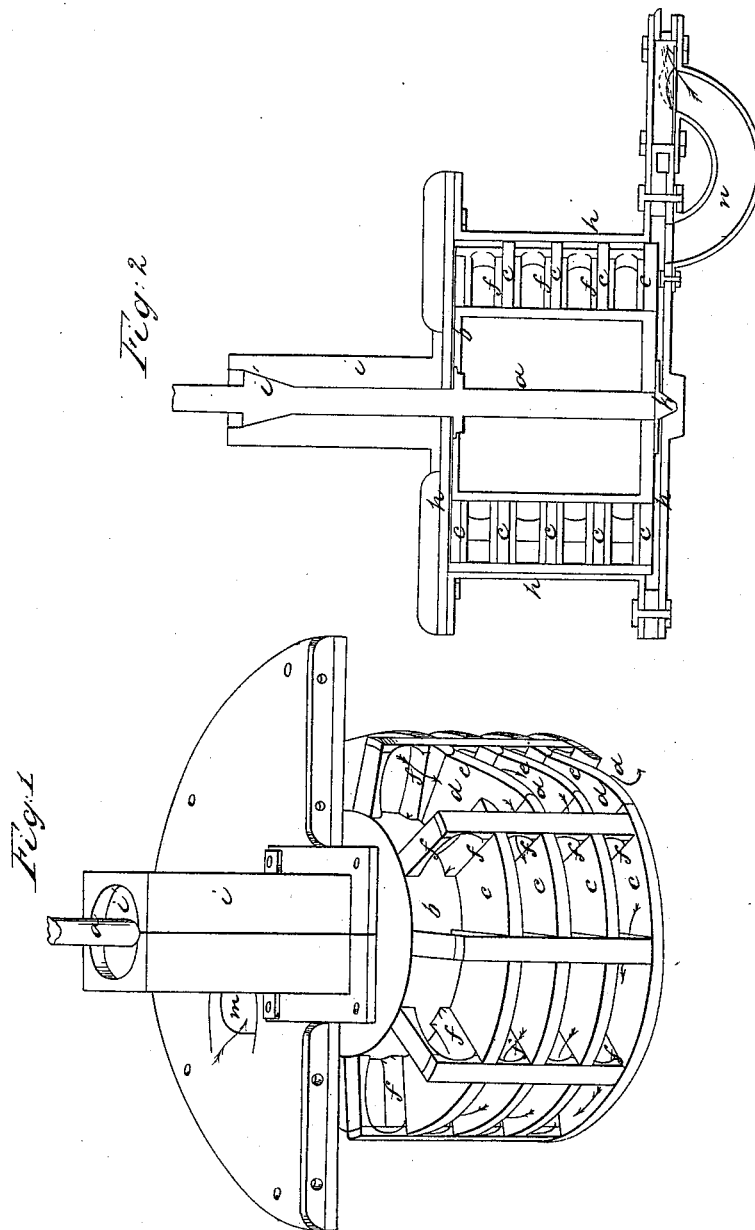


*W. G. Masterson,*

*Water Wheel.*

*N<sup>o</sup> 6773.*

*Patented Oct. 9, 1849.*



# UNITED STATES PATENT OFFICE.

WILLIAM G. MASTERSON, OF AMESBURY, MASSACHUSETTS.

## WATER-WHEEL.

Specification of Letters Patent No. 6,773, dated October 9, 1849.

*To all whom it may concern:*

Be it known that I, WILLIAM G. MASTERSON, of Amesbury, in the county of Essex and State of Massachusetts, have invented a new and Improved Water-Wheel, and that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things before known, and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawing, in which—

Figure 1, is a perspective view of the wheel. Fig. 2, is a vertical section of the wheel and case.

My improvement consists in passing the water around the wheel any given number of times, in a horizontal direction, the water descending from one level to another at the termination of each revolution, and being made to pass through any given number of contractions, which I call buckets in its course, by means of which I keep the water in a solid body without breaking before it makes its exit from the wheel, and cause it to press with the four sides of its column on said buckets, by which I attain the full force of the water upon the wheel while passing through it.

The construction is as follows: On a suitable shaft (*a*,) there is a hub or core (*b*,) around which are arranged any number of horizontal flanges (*c*,) which flanges have an opening (*d*,) on one side that connects with the space below, there being an inclined plane (*e*,) connecting the first with the second flange, and so on through the series, as clearly illustrated in Fig. 1; at the last

opening at (*d'*) the water is discharged from the wheel; at regular intervals around each of the compartments formed by the flanges (*c*,) are projections (*f*,) which contract the water way, and upon which the nonelastic water impinges, causing the wheel to revolve in the direction shown by the arrows, which indicate the course of the water; the whole wheel thus constructed is surrounded by a case, (*h*,) in which it runs as close as is practicable without too much friction; the upper end of the shaft extends up into a thimble (*i*,) that is affixed to the case, and has a bearing on a conical projection (*i'*,) that fits a similar shaped enlargement of the thimble at that point; the lower end of the shaft sets in a step at (*k*,) of ordinary construction; the water enters the case at (*m*,) near its periphery in a tangential direction, inclined to the horizon, and escapes through an inverted siphon tube (*n*,) at the bottom, the orifice of which is covered by a valve (*o*,) that opens outward, so that none of the water discharged can return upon the wheel.

Having thus fully described my wheel, what I claim therein as new, and for which I desire to secure Letters Patent, is—

Forming the water courses of a series of horizontal flanges, with inclined openings for communication, as described, and with contractions or buckets placed at intervals in said compartments, substantially in the manner and for the purpose set forth.

W. G. MASTERSON.

Witnesses:

WM. GREENOUGH,  
J. J. GREENOUGH.