

June 1, 1915.

DRAWING

1,123

A careful search has been made this day for the original drawing or a photolithographic copy of the same, for the purpose of reproducing the said drawing to form a part of this book, but at this time nothing can be found from which a reproduction can be made.

Finis D. Morris,

Chief of Division E.

AWK.

UNITED STATES PATENT OFFICE.

JOHN MARTINEAU, LATE OF ELBRIDGE, NEW YORK; ELIZA MARTINEAU,
ADMINISTRATRIX.

WATER-WHEEL.

Specification of Letters Patent No. 1,123, dated April 18, 1839.

To all whom it may concern:

Be it known that JOHN MARTINEAU, late of the town of Elbridge, in the county of Onondaga and State of New York, who died
5 intestate, in his lifetime invented a new and useful Improvement in Water-Wheels and the Application of Water Thereunto, of which I, ELIZA MARTINEAU, administratrix of all and singular the goods, chattels, and
10 credits of the said JOHN MARTINEAU, deceased, do hereby declare the following to be a full and exact description.

To a vertical or horizontal shaft I attach two or four or six or more floats made of
15 wood or iron, the proportion of the width of the floats and compared with the length of the same being greater or less in proportion to the greater or smaller head and fall and consequent force of the water by which the
20 wheel is driven. This wheel is inclosed in a curved case made tight on all sides except a place for the water to be let in upon the wheel and another for the same to be let off. The floats against which the water
25 strikes and by which the shaft is turned are of such a width as to fill the space between the bottom and top of the curved case, when the shaft stands vertically or between the sides of the case when the shaft is placed
30 in a horizontal position.

The annexed drawing exhibits the curved case lying horizontally, the shaft is of consequence in a vertical position.

The water is let in upon the floats by a
35 spout marked A., in the annexed drawing, extending from the dead water at the bottom of the fall pond or dam and fitting closely to the opening (marked C. B. D.) where the water enters the scroll or curved case
40 which contains the wheel.

The inside of the curved case commencing at the point C. and thence passing around on the inside to the opposite point D. in the drawing, forming the side of the
45 case to hold the water in its immediate action on the wheel is in the form of a scroll, continually bending inward or diverging more and more from a true circle after leaving the point C. aforesaid till it
50 meets the under or other side of the spout at the point D., having departed in the whole circuit from a circular form by the amount of space or distance between the points C. and D.

55 The floats are made in an irregular curved

form as marked E. E. E., &c., in the drawing and so placed that the water shall strike first upon their outer side and in such a manner that their curvature shall favor the
60 object of retaining the water with its propelling force for the greatest length of time possible within the wheel and on the back of the floats and in such manner also that when the water has spent its propelling
65 force and reached around to the space inside of the floats its escape from the wheel is facilitated by the inward curvature of the floats in a manner such as to diminish in the least possible degree the momentum of
70 the revolving floats and wheel.

The length of the floats is such as to extend as they revolve each from the shaft to the point D. or so near it only as not to rub against it as they revolve.

In the annexed drawing the letters F. F.
75 F., &c., represent an open space lying between an imaginary circle described by the ends of the floats as they revolve, and the inside of the curved case; this space in width extends at its commencement from the point
80 C. to the point D. and continually diminishes tapering as you pass around and finally closes or comes to a point at D.

The water passes off from the case at the circular opening on the under side into
85 which it is swept after its propelling power is spent, by the inward curvature of the revolving floats. This opening is in the center of the case on the underside, designated in the drawing by the letters G. G. G. and is
90 about twice as large as the opening C. B. D. at which the water enters, but may be varied at pleasure, both as to dimension, relatively position or form, as circumstances may require.
95

The shaft in the annexed drawing is the square figure in the center of the floats and to which they are attached. The shaft stands on a bridge tree so called being a
100 piece of timber on which the case and shaft rest and to which the case is firmly fastened. The water entering at the opening C. D. with a force proportioned to the head and fall at the dam or other contrivance for raising a head of water drives around the inside
105 of the curved case with a spiral or scroll motion and striking the floats sets them in motion and by them the shaft and as it passes off at the opening G. G. G. and is supplied and fed afresh from the pond or
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reservoir with which it will be seen the whole machinery is connected, the motion is continued.

5 An increase of moving power may easily be obtained by attaching two wheels to the same shaft acting each substantially in the same manner as above specified each wheel having the water applied to it independent of the other, and so, indeed, the number of
10 wheels to one shaft may be increased indefinitely as may be desired. For a horizontal shaft there should be two openings for the escape of water from the wheel (instead of one as exhibited in the drawing) one on
15 each end of the wheel; the same circle as in the drawing may be considered as represent-

ing both changing only the position of the case from horizontal to vertical.

What I claim as the invention of the said JOHN MARTINEAU, since deceased, and wish 20 to secure by Letters Patent is—

The curved case the inside of which is in the form of a scroll, in combination with the crooked or curved arms the whole being constructed and combined in the manner and 25 for the purpose herein described.

ELIZA MARTINEAU,
Administratrix, &c.

Witnesses:

HIRAM F. MATHIER,
R. FARNHAME.