(12) **United States Patent**
Allen

(10) **Patent No.: X3653**
(45) **Date of Patent: Feb. 8, 1823**

(54) **WATER WHEEL**

(76) Inventor: **Adolphus Allen**

Specification of

Letters Patent

Be it known that I, the undersigned, have invented certain new and useful improvements in the construction of a water wheel, of which the following is a full, clear and exact description.

This wheel is designed more particularly for large sluggish streams where there is but little fall of water but is applicable to any stream or any amount of fall and may be used in tide water to rise and fall with both ebb and flood tide and may adapted to any required angle of attitude from a vertical to a longitudinal position. It may be composed of wood, of iron or any other suitable material and is constructed as follows. Take a shaft of size proportioned to the use intended: after securing a gudgeon in each end draw a line circumvallating the shaft. Lay this off into eight equal parts (more or less according to the size of the wheel) from these points draw parallel lines in a line with the shaft. At each of these points raise a perpendicular to the contemplated size of the wheel. Extend an oblique line from the top of the first perpendicular guide crossing the next parallel line at an angle of seventy two degrees or eighteen degrees with the radius. Extend it to the second parallel line. At the intersection raise a perpendicular equal in length with the first. Extend this oblique curve-linear line between the top of these guide posts which will form the contour or periphery of the bucket. The bucket can then be shaped to fit this form and configuration and secured to the shaft. At the periphery of each bucket a projection or flange can extend out to retain the impulse of the water. The other buckets can be shaped to correspond with this and all permanently secured to the shaft. This wheel is placed in a canal or semi circle fitted to the size

and shape of the wheel At one end of the shaft secure a bevel gear and adding to convey the power to machinery. What I claim as my improvement and desire to secure by Letters Patent is the spiral form of bucket whereby an oblique action of the water at an angle of seventy two degrees with the shaft, or 18 degrees with the radius of the wheel derives a maximum power from the impulse of the water.

Witness
Howard Spaulding

Nicholas Allen

Received and recorded March 29th 1834 from a copy of the original sworn to by the Patentee

DRAFTSMAN'S DIVISION.

All communications should be addressed to "The Commissioner of Patents, Washington, D. C."

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DEPARTMENT OF THE INTERIOR,

United States Patent Office,

Washington, D. C., ..., 189...

SIR:

The printed copies of of Patent No. A. Allen

are exhausted. Feb 8, 1823

As soon as printed a copy will be mailed you to complete your order.

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By direction of the Commissioner:

Very respectfully,

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Chief Clerk.

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United States Patent

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