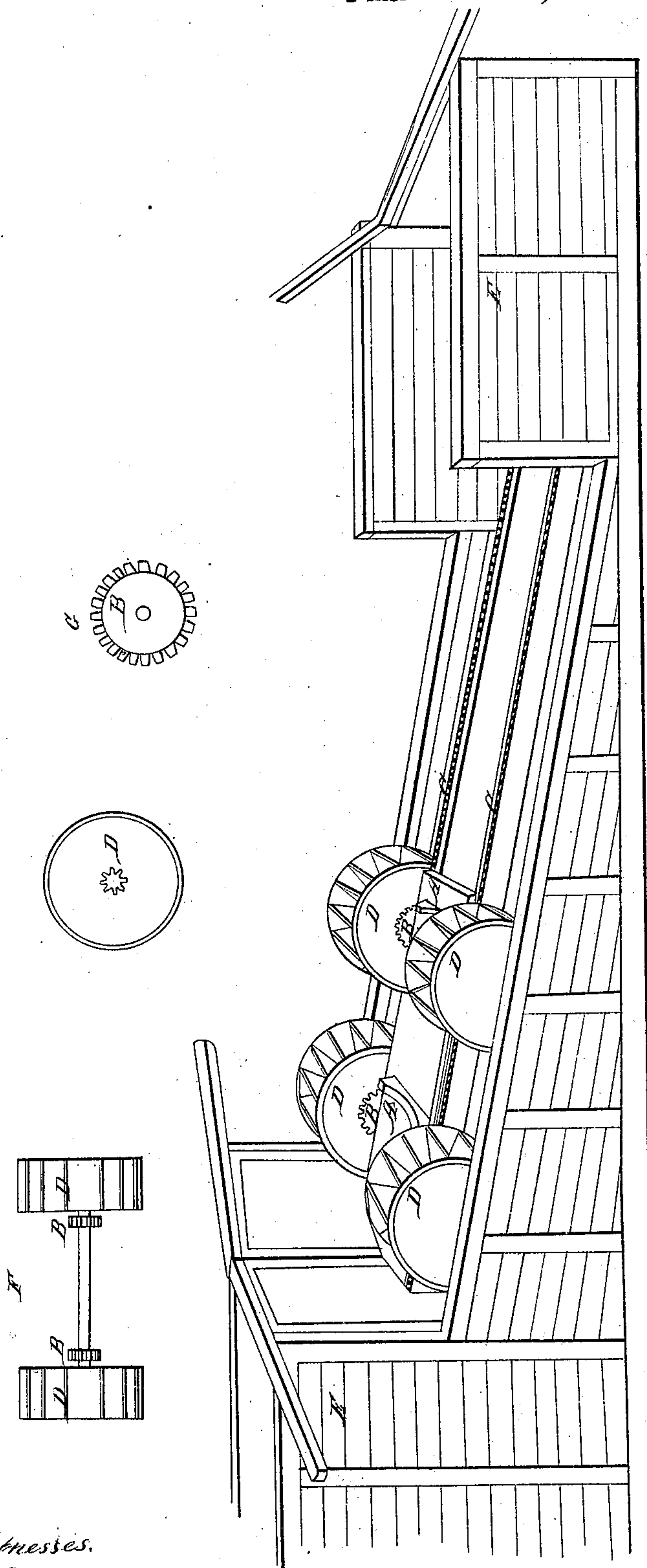


G. Brown.
Marine Railway.

No. 299.

Patented Oct. 6, 1837.



Witnesses.
Olive G. Warren
Elizabeth Brown

Inventor.
Gideon Brown

UNITED STATES PATENT OFFICE.

GIDEON BROWN, OF NEW YORK, N. Y.

MODE OF CONVEYING RAILROAD-CARS AND CANAL-BOATS UP AND DOWN INCLINED PLANES.

Specification of Letters Patent No. 299, dated October 6, 1837.

To all whom it may concern:

Be it known that I, GIDEON BROWN, of the city, county, and State of New York, have invented a new and useful machine or apparatus, called "Brown's inclined plane," for the purpose of conveying up or down inclined planes canal-boats, trains of railroad cars, or other heavy burdens; and I do hereby declare that the following is a full and exact description.

The object of this invention is to convey up or down an inclined plane, wherever there is a small stream of water, or a canal, a train of cars, a canal boat or any other burden.

The nature of the invention consists in applying a downward stream of water to water wheels or paddles, upon whose axle trees pinions are attached, acting upon a rack running beside the rail, by which means, the paddles are turned in the direction of the stream, and the carriage, by means of the rack and pinion, carried up the ascent.

It is constructed in the following manner: A sluice or race is made upon the inclined plane, true and even in the sides and bottom, of depth and width sufficient to accommodate the paddles. Two sluices or one only may be made. When two sluices are made, as is most proper, the railway is laid between them, upon which there is a rack also between the rails which support the carriage, or two racks, if desirable, one upon the side of each rail.

When this inclined plane is intended for conveying canal boats, a lock is made at each end of the plane, one at the bottom to raise the boat upon the carriage and one at the top to raise the boat to the level of the canal above. When it is intended for conveying a train of cars, no locks are necessary. The sluice runs so far beneath the railroad at the bottom that the cars can be run upon

the carriage, and at the top they are taken off the carriage in the same manner.

A A, &c., in the annexed drawing, is a representation of the carriage. It is generally made with four wheels or paddles like those of a steamboat, but two or even one will answer the purpose for light burdens. B B, &c., the pinions, which run in the rack and move the carriage. C C, &c., the rack, which is laid beside the rails, and is made either with cogs, or sockets. D D, &c., the paddle wheels made of any appropriate form and dimensions. E, E, the locks for placing on and taking off a canal boat.

When a burden is to be taken down the plane, it is put upon the carriage at the top and only enough water let upon the wheels to prevent the carriage running down too fast.

By the plan above described a canal boat or train of cars may be conveyed safely and expeditiously up or down an inclined plane of any length, and when the ascent is steep or the burden great, it is only requisite to diminish the size of the pinions and less speed and more power will be attained.

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

The means and method, above described, of applying a stream of water running down an inclined plane to paddle wheels to whose axle-trees pinions are attached running into racks, by which the burden placed upon the axles is carried up the ascent or retarded in its passage down.

My claim is specifically to the application of the paddle-wheels, pinions and racks to the purposes of conveying burdens upon an inclined plane.

GIDEON BROWN.

Witnesses:

OWEN G. WARREN,
ELIZABETH BROWN.