9696X

G. Hotchkiss.
Towing

Patented June 2. 1836.

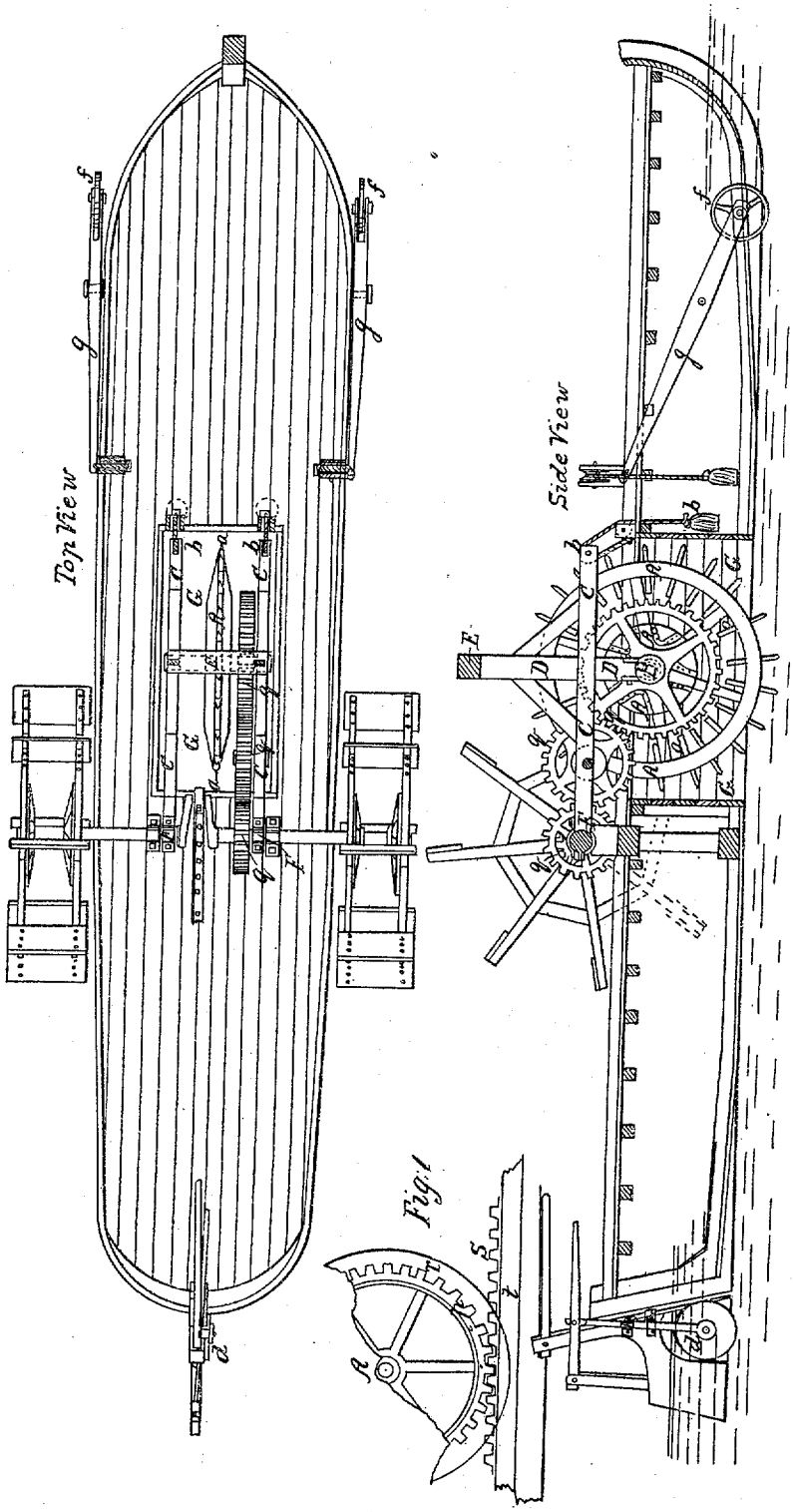


Fig. 1

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

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Gideon Hotchkiss

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The Schedule referred to in the Indian Patent and making part of the same containing a description of the Land of the said Gideon Hotchkiss, Invintor of the improvement in the art of propelling or drawing Boats Vessels or other Water Craft. Be it known that I Gideon Hotchkiss of Meriden in the County of Brown and State of Connecticut have invented a new and useful improvement in the art of propelling or drawing Boats or Vessels or other floating bodies in shoal or swift water in Rivers and Canals or other waters. The following is a full and exact description thereof— It consists of a Perpendicular Oscillating Reciprocating or other Wheel or Wheels which by revolving and rolling on the bottom of a River canal or other Waters of sufficient depth to carry boats will draw or propel them when connected to the with proper tackle or gear for the purpose in the usual manner of any shape or size whatever. Said Wheel may be placed before or behind or between or side by side of the bottom of the either or both sides, or in all these places in said boat and shall or may be of a two fold or Canal or other boats or a single or more than two fold. On the bottom of said Canal or other boats, said Wheel may be made of cast or wrought iron or of wood or partly of both and partly of either of such materials as to have the general weight of boats so that the shaft or axle shall be generally above water and of sufficient strength to withstand force with the use of the boat. The axis or journal to be formed with square or projecting ends which is to turn on the ground or planks at the bottom of rivers, canals or other waters on which said boat may

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or if it is to run on a rail on the side or bottom of
rivers canals or other roads to be formed so as to come
with the frame of the rail whether it be with cogs or with-
out, with a projection or flange or flanches on each
side, so as to make the Wheel follow the rail similar to
those on steam carriages to run on rail roads. The
shafts or axles to be about one fourth of the diameter of the
Wheel in length with flanches on each — — work or gudg
eon to keep the frame together. The frame to be made
with two arms, one fourth greater in length than
the diameter of the pedestrian Wheel with two spokes
framed on the shafts to project one fifth of the
diameter of the Wheel below, come to a point about as as
to clear the Wheel with a cap on the top to correspond
with the length of the shafts of the pedestrian Wheel.
At the lower end of the spokes the Wheel is hung, the other end of the
arms by which is held to about two thirds of the diameter of the
Wheel and strongly braced to keep it from working or rising
and footboards to the Wheel by hinges or joints so as to keep
the Wheel in a vertical position and permit it to rise
and fall in an opening between the boards in the boat
so that in turning all on the bottom is nailed diagonally to the
of which cover thereby, and so propell the boat or load forwards.
This Wheel may be raised as before described on the bottom
or rail by pullies and weights or by levers and fulcrums or by
springs. Said Wheel may be fixed and continued in position
by steam or any other power communicable to a Wheel or
by means of the frame communicable to a Wheel or
by means the centre of motion of the Wheel's frame, and frame
shall to the pedestrian Wheel by a — — cogs or skep chains
running over a corresponding Wheel on the axles of the pedes
trian Wheel or in any of the known methods of gearing.
When the vessel or boat is intended to proceed the boat
by reason of short rails then there may be a Wheel on the

wedden frame on men the stern of the boat which by forcing it on the bottom in a proper manner will give the desired direction. Also the sides of the boat may be provided with buoy wheels of wood or cork which to leave which may be fastened on the bottom when the water is not shallow and thereby enable the boat to pass shoals and bars which it otherwise could not. In deep water paddle wheels may be used as in other boats moved by the same power that moves the perpendicular wheel when not wanted may be raised out of the water. What I claim as my own invention and, not previously known in the above described principles for the purpose of facilitating navigation by a wheel, the buoy frame by which it is made to follow the bottom of rivers and canals or other works of different depths & adaptation in shape &c as well as on the bottom of canals or other works so that it is enabled to follow the track and draw as low a boat or boats or other vessels (so far as it differs from those used on plane surfaces or seas) the employing or making use of such wheel, the wheel in a wedden and the buoy wheel and their use — Dated Witness my hand this 12th day of

Witnesses
C. N. Stockbridge
S. G. Wheeler

Richard Stockbridge

(Specification)

Drawing made from the original