

(No Model.)

A. ALBERTSON.
Canal Boat.

No. 237,462.

Patented Feb. 8, 1881.

Fig. 1.

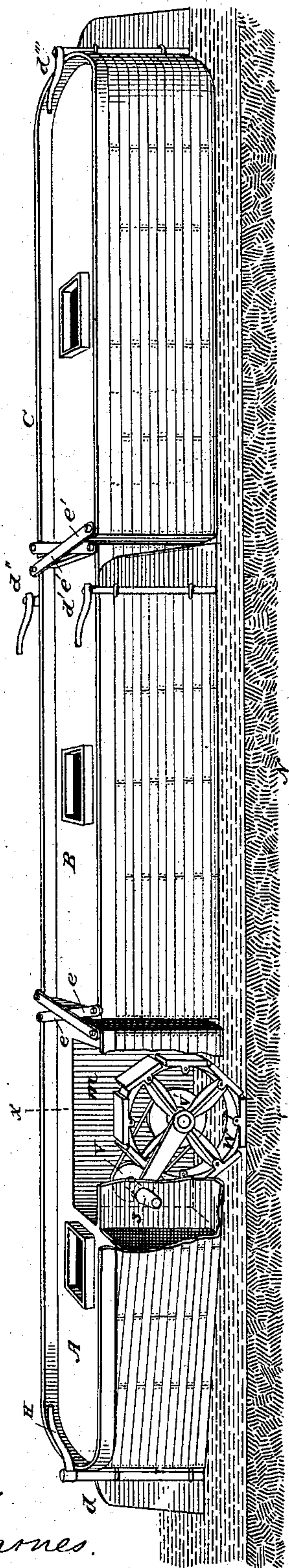


Fig. 3.

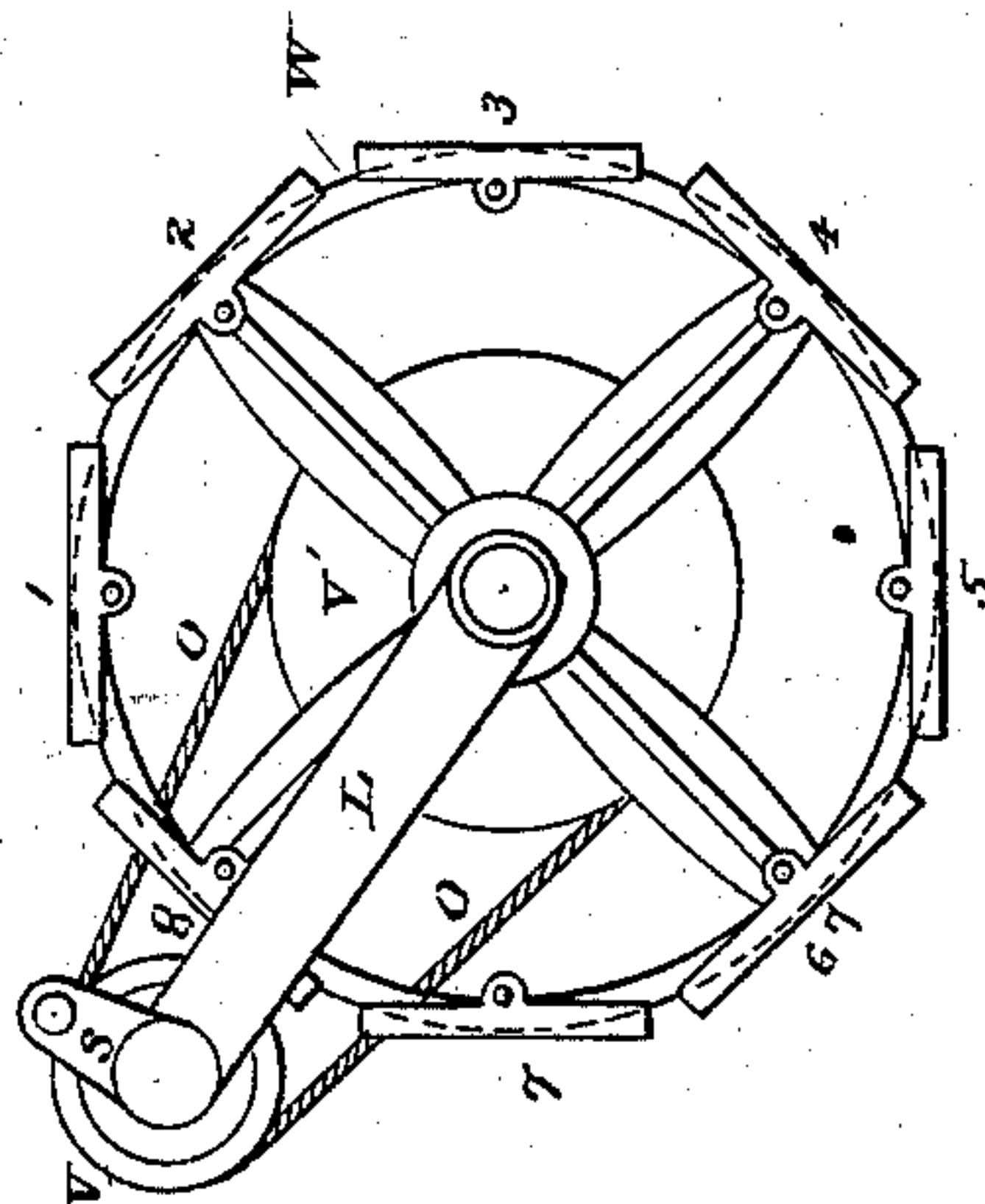


Fig. 4.

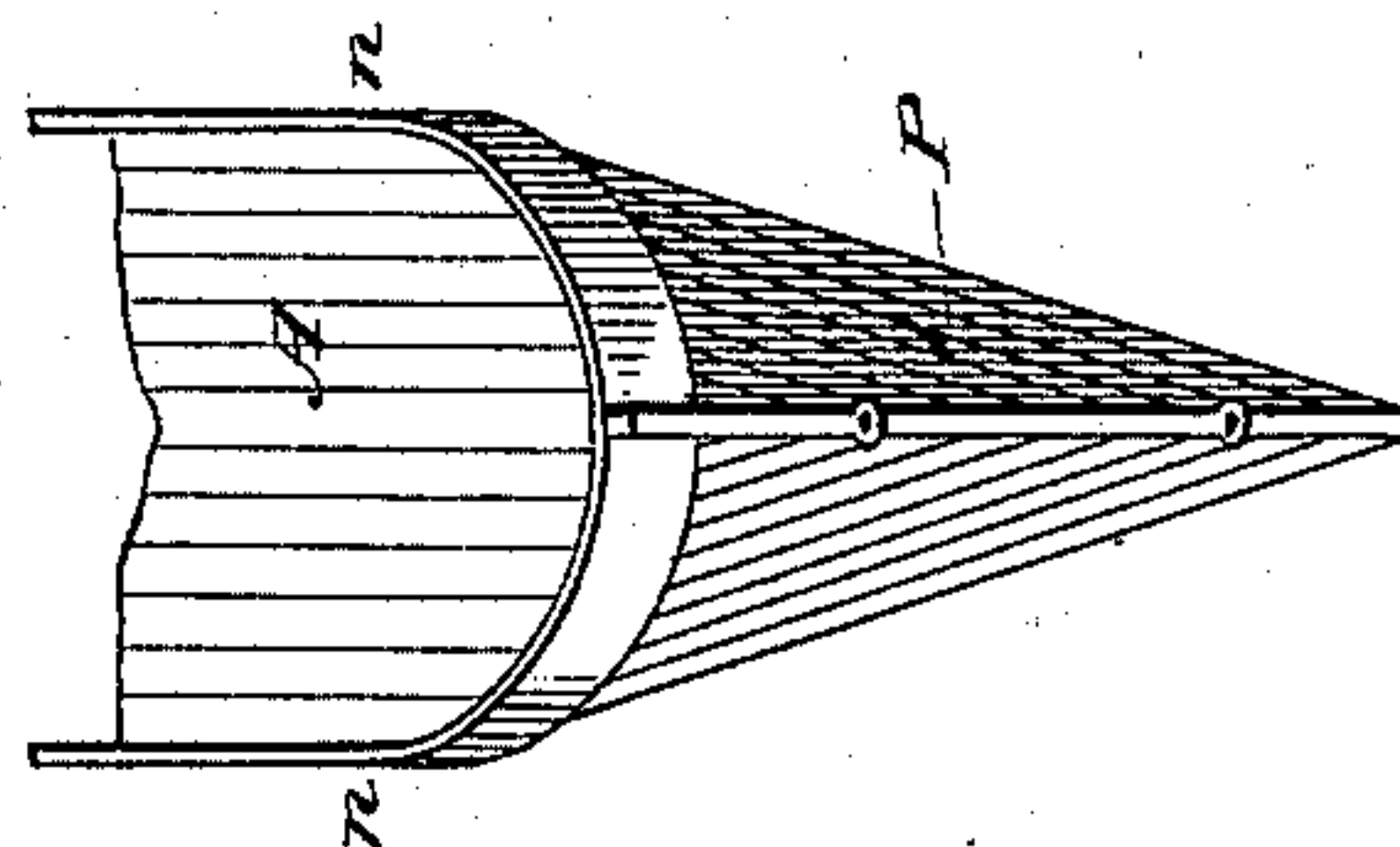
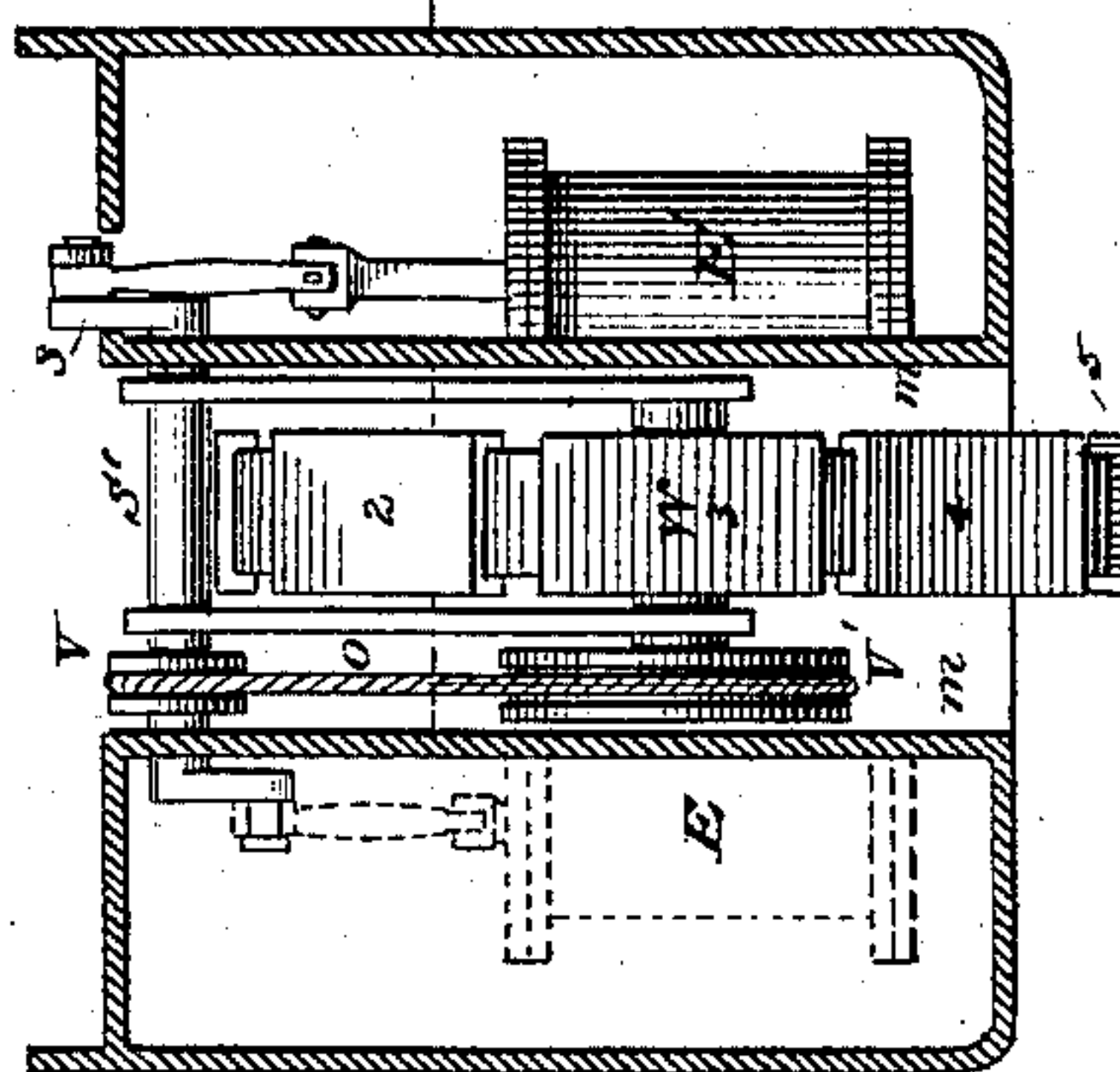


Fig. 2.



Attest:
R. F. Barnes.
H. J. Bailey.

Inventor
Albert Albertson
By James P. McLean
att'y.

UNITED STATES PATENT OFFICE.

ALBERT ALBERTSON, OF JERSEY CITY, NEW JERSEY, ASSIGNOR OF FOUR-TENTHS TO ISAAC NEWTON WILLIAMS, OF BROOKLYN, NEW YORK.

CANAL-BOAT.

SPECIFICATION forming part of Letters Patent No. 237,462, dated February 8, 1881.

Application filed July 27, 1880. (No model.)

To all whom it may concern:

Be it known that I, ALBERT ALBERTSON, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain
5 new and useful Improvements in the Construction of Boats for Canal Transportation; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to
10 which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to do away
15 with horse-power on the canals, by substituting in lieu thereof a more powerful and economical method of transportation of freight at less labor, time, and expense.

To this end the invention consists in a canal-
20 boat constructed in sections, so that they may be connected and disconnected from each other while passing through the locks, or otherwise connected by the coupling hereinafter described, and provided with rudders at the bow,
25 sides, and stern, the whole series of boats being propelled by means of a driving-wheel having oscillating sections or plates hinged or otherwise secured to the outer periphery thereof, so that the said sections of hinged plates
30 will form the tread-pieces of the revolving wheel operating upon the bottom of the canal, said pieces being laid down and taken up by the rotating wheel itself, which is operated by any suitable engine located between the wall
35 of the well and the inner sides of the boat, or otherwise, so that the same will operate the driving crank-shaft upon which the connecting-bars are geared to receive and operate the driving-wheel, which is hung upon the loose
40 ends of said bars, so that the said wheel will rise up or drop down to adapt itself to the grade of the canal-bed.

Referring to the drawings, Figure 1 represents a perspective view of my sectional canal-
45 boats. A is the bow-section. *d* is the rudder in the prow of the same. B is the second section, secured to section A by the swinging bars *e e*, and provided with a rudder, *d'* and *d''*, on each side thereof, near the back end of said section, to assist in steering the series of boats

while passing round a curve or bend in the canal. C is the stern section of the canal-boat, secured to the middle section, B, by the swinging arms *e' e'*, the whole being propelled by means of the driving-wheel W, operating upon
55 the bottom of the canal N in the well *m* in the front or sharp prow-section, A, of the series of boats.

I would here state that I do not wish to confine myself to the above forms of boats or sections thereof, excepting to section A, which
60 may also be modified in form, provided a sharp cut-water or prow is presented to the water in front of the boat, having a rudder, *d*, secured to the same, for steering all the different sections by means of the lever or helm H, or other
65 suitable gear, in combination with the side rudders, operating on each side of section B, for going round a curve or bend in the canal.

Fig. 2 is a cross-section of A at *xx*, showing the driving-wheel W, with swinging or oscillating pieces 1 2 3 4 hinged to the outer face of the driving-wheel W in the well *m m*, band and pulleys O V V', shaft S', and driving-crank S, operated by the piston in the steam-
75 cylinder E' or other power.

L L are swinging bearings upon which the axis of the wheel W revolves when operated by the aforesaid pulleys and band O.

There may be another driving steam-cylinder placed at E in the opposite side of the boat A, if necessary, to increase the motor power.

Fig. 3 is a side view of my improved driving propeller-wheel W, showing the oscillating tread-pieces 1 2 3 4 5 6 7 8, hinged by pivots or otherwise secured to oscillate on the treading surface or face of the outer periphery thereof. These swinging sections or tread-pieces adjust themselves to the revolving face
85 of the tire of the wheel, also to the bottom of the canal, when the aforesaid wheel W is in operation.

V is a small driving band-wheel secured to the driving crank-shaft S'. V' is a larger
95 band-wheel, forming a part of or secured to the axis of the wheel W at the opposite end of the arms L, the whole being operated by the driving-band O O.

Fig. 4 is a perspective view of the bow and 100

part of the deck of my improved canal-boat, having the rudder removed to more clearly show the sharp cut-water or prow P; also the extended guards *n n*, so as to give the required deck-room.

Having set forth the several parts of my sectional canal-boats, I would here state that I am aware that several canal-boats have been towed while connected together; but the novel features of this invention consist in the mode of propelling and steering the several sections at the same time by means of the bow-rudder, in combination with the side and stern rudders, the whole being propelled by a driving-wheel in the well of the front or bow section thereof, said wheel operating on hinged tread-pieces or plates secured to the outer periphery of the same, to operate upon the bed of the canal by the pressure of said wheel.

What is claimed in this invention is—

A canal-boat composed of several sections or boats coupled together by means of swiveling X-bars, the ends of each bar being respectively pivoted at opposite sides to adjacent ends of adjoining sections, the forward section having a sharp cut-water or prow, and being provided with a traction-wheel driven by steam-power and adapted to operate on the bed of the canal, and with a rudder at the bow, the rear section being provided with a rudder at the stern, and the intermediate section or sections being provided with rudders at either side, all substantially as described.

In testimony that I claim the foregoing as my own invention I affix my signature in presence of two witnesses.

ALBERT ALBERTSON.

Witnesses:

JAMES P. McLEAN,

JOHN R. McLEAN.