

S. W. Wood.
Paddle Wheel.

Patented Apr. 29, 1850.

N^o 14,786.

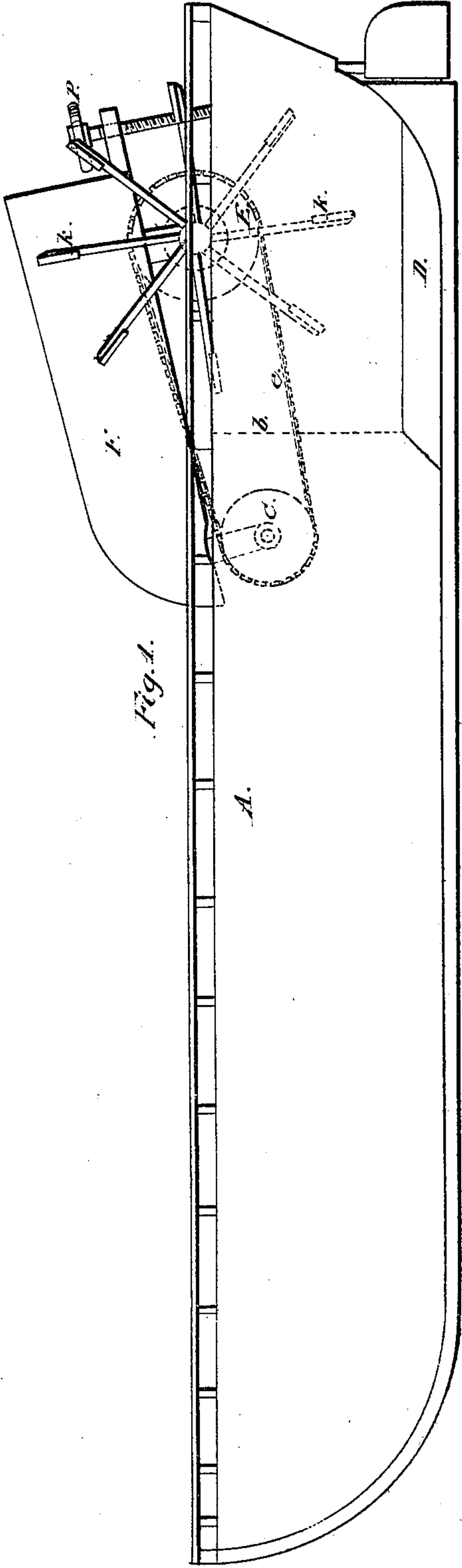


Fig. 1.

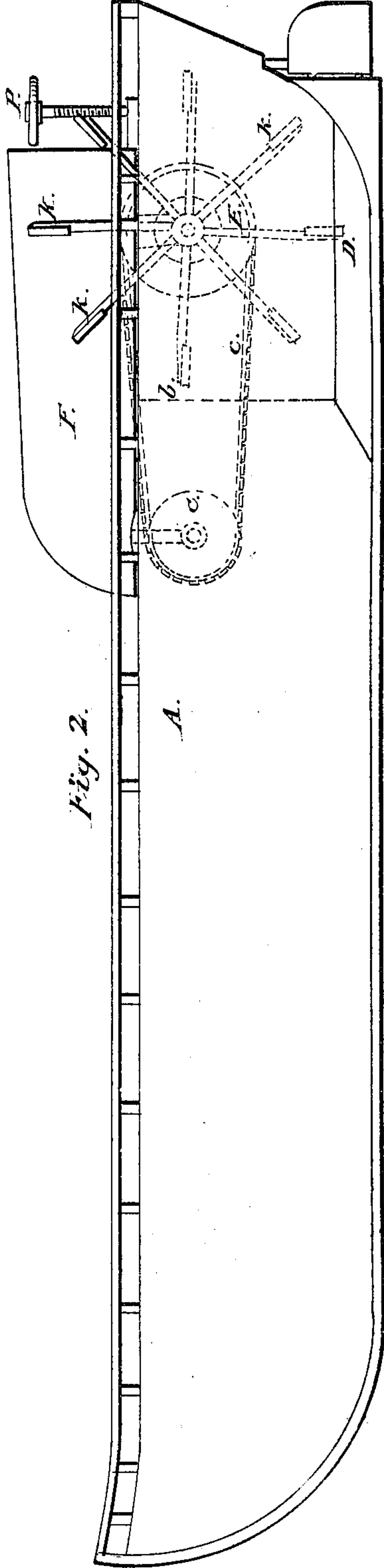


Fig. 2.

UNITED STATES PATENT OFFICE.

S. W. WOOD, OF WASHINGTON, DISTRICT OF COLUMBIA.

PROPELLING BOATS.

Specification of Letters Patent No. 14,786, dated April 29, 1856.

To all whom it may concern:

Be it known that I, S. W. Wood, of the city of Washington and District of Columbia, have invented certain new and useful
5 Improvements in Mechanism for Propelling Vessels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

10 Figure 1 represents a side elevation of a canal boat, laden to its utmost capacity, showing the endless belt horse power at its greatest incline, and the paddles elevated to their highest position. Fig. 2, is a similar
15 view with the endless belt lowered to a horizontal plane and the paddles in their lowermost position as used when the boat is drawing the least depth of water.

The same letters indicate the same parts
20 in all the figures.

The nature of my invention consists in so constructing an endless belt horse-power, by pivoting the same at one end and securing to the opposite end paddles or propellers in
25 such manner, that whatever depth of water the boat may draw, these paddles may be adjusted to the proper height in order to enter the water at any desired depth; also, when the vessel is laden at which time the
30 greatest amount of power is required the adjustable endless belt is elevated to an inclined position throwing the weight of the horse in favor of propelling the vessel.

To enable others skilled in the art to make
35 and use my improved horse power for propelling vessels I will proceed to a description of the same in detail.

A in the accompanying drawings represents a canal boat with my improved horse-
40 power and paddles attached.

In using side wheels as represented, it is necessary to place them within the sides of the boat in order to avoid contact with each other and to admit them through locks with-
45 out injury. To introduce this arrangement of paddles a portion of the planking from

the lower side of the boat must be removed as seen at, D, and separated from the main body by a partition *b*, represented by dotted lines Figs. 1 and 2, the stern being left open
50 at the proper height to prevent what is usually termed "drag water."

C E, are drums or wheels around which passes an endless belt *e*, through which motion is imparted to the paddles (*h*). To
55 the ends of the shaft of wheel E which rests in proper bearings attached to frame F are secured paddle wheels (*h*) constructed of any desired form to which motion is given through the endless belt (*e*). To the front
60 end of the frame F is arranged a hand wheel and screw (P), the lower end of the screw resting in a seat secured to the deck of the boat.

The shaft of the drum E, to which the
65 paddles are attached, being secured to the frame F, and entirely independent of, and not connected with the boat, is raised and lowered through the operation of the hand wheel and screw P, attached to said frame.
70 The shaft of the drum *c* being secured to the boat, forms a pivot on which the frame F together with the drum E, and paddles *h* turn, and by which means the paddles are raised or lowered to any desired position
75 corresponding with the draft of the boat.

Having thus fully described my improved mechanism for propelling vessels, what I claim therein as new and desire to secure by
Letters Patent is—
80

The arrangement and combination of the horse-power and paddle wheels herein described, whereby the raising and lowering of the paddle wheels to suit the various depths at which the boat sinks, and produces
85 a variable inclination of the horse-power so as to enable the horse to exert as power proportional to the weight of the load.

S. W. WOOD.

Witnesses:

J. R. O'NEIL,

JOHN HOLLINGSHEAD.