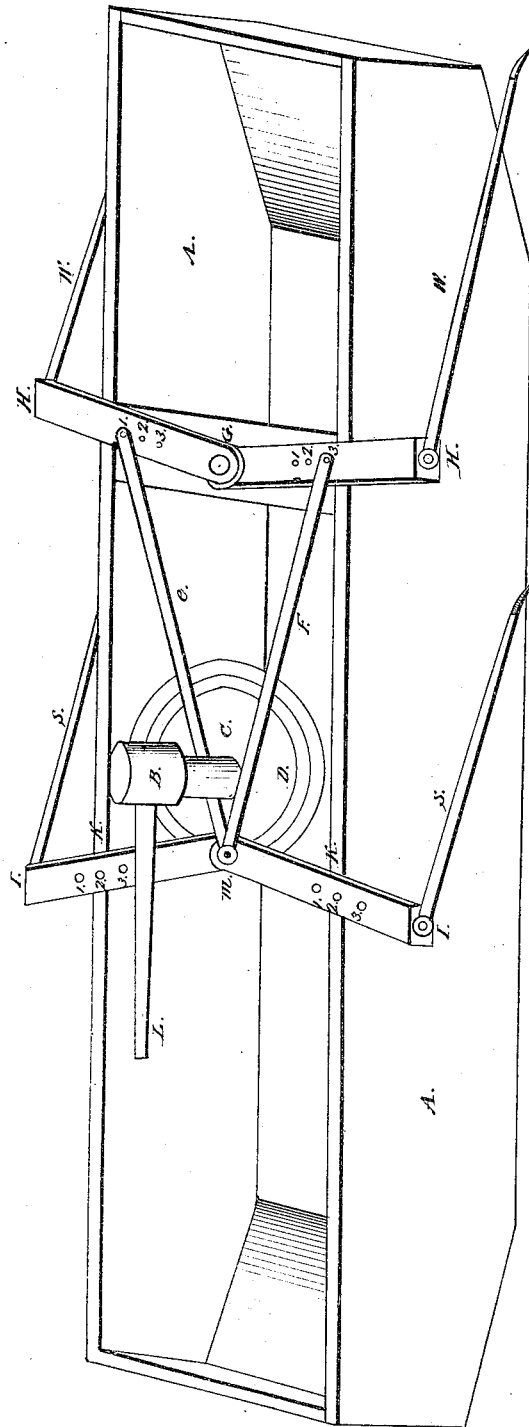


A. F. Stelle,
Towing.

N^o 47,048.

Patented Mar. 28, 1865.



UNITED STATES PATENT OFFICE.

AROLD F. STELLE, OF CROSSINGVILLE, PENNSYLVANIA.

IMPROVED POLE PROPELLER.

Specification forming part of Letters Patent No. 47,048, dated March 28, 1865.

To all whom it may concern :

Be it known that I, AROLD F. STELLE, of Crossingville, in the county of Crawford, State of Pennsylvania, have invented a new and Improved Machine for Propelling Boats and Barges; and I do hereby declare the following to be a full and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon.

A A is the body of the boat or barge.

C is an eccentric wheel on the shaft B. This wheel is round, yet hung on the shaft B, outside its center.

D is a groove around and near the rim of wheel.

K K and H H are levers, of which K K are hung on the fulcrum-pins 2 2 in the sides of the boat, and H H on a fulcrum-pin, G, in a piece crossing the boat.

S S and W W are propellers attached to the levers K K and H H by bolts. (See I I and at H H.)

E F are connecting-rods, one end of which are attached to the levers K K by the bolt *m*, which projects through the levers into the groove D. The other ends are attached to the levers H H by the pins at 1 3.

L is an arm or lever, to which a horse is hitched, and walks around on a platform which is laid across the boat and covers the wheel C, levers, and connecting-rods. This platform is left off in the drawing to better show the machinery.

1 2 3 are holes in the levers by which the power and motion of the levers are regulated by changing the fulcrum.

Now, as the wheel C revolves, the pin *m* moves in the groove D, which moves the levers K K and H H alternately back and forth, thereby operating the propellers S S W W, which catch on the bottom of the stream and thus propel the boat forward.

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

The levers K K H H and the propellers S S W W, in combination with the eccentric wheel C, and the connecting-rod E F, when the same are constructed in the aforesaid combination for the purposes set forth.

AROLD F. STELLE.

Witnesses:

A. B. RICHMOND,
IRA H. PIERCE.