

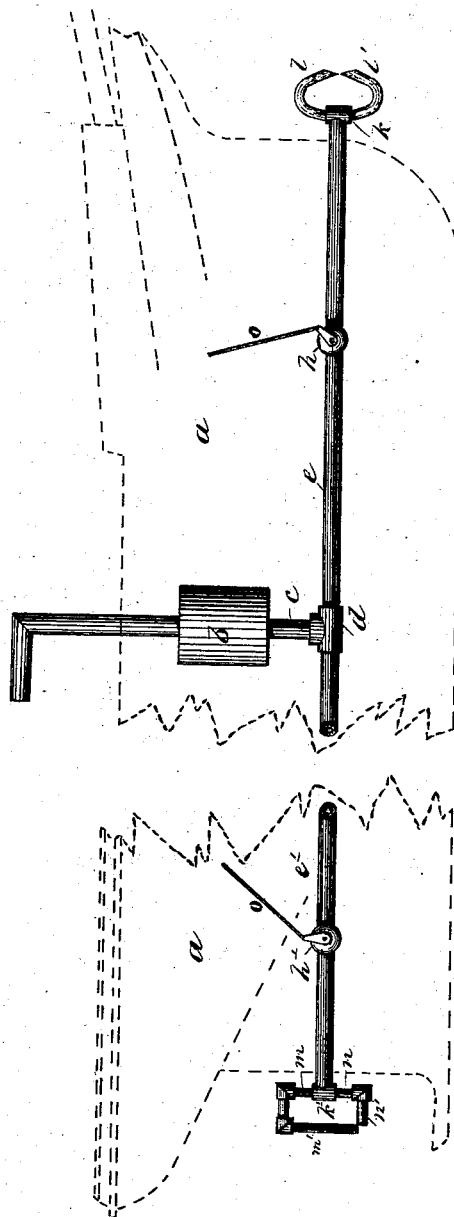
(No Model.)

A. BRACHT.

MEANS OF PROPELLING VESSELS.

No. 259,998.

Patented June 27, 1882.



WITNESSES:

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AUGUST BRACHT, OF BALTIMORE, MARYLAND.

MEANS OF PROPELLING VESSELS.

SPECIFICATION forming part of Letters Patent No. 259,998, dated June 27, 1882.

Application filed November 1, 1881. (No model.)

To all whom it may concern:

Be it known that I, AUGUST BRACHT, of Baltimore city, State of Maryland, have invented a new and Improved Means of Propelling Vessels or Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, forming part of this specification, in which the figure represents a longitudinal section of a vessel with my improved propelling devices applied thereto.

The object of my invention is to propel a vessel or car by the action of currents of water or steam forced from a suitable reservoir in the vessel or from a steam-boiler in the car and impinging against each other in the stream in which the vessel floats or in the air surrounding the car, whereby the vessel or car is propelled, as hereinafter more fully set forth.

In the accompanying drawing I have represented my improved device as applied to the propulsion of a vessel, in which—

a represents the hull of the vessel, provided with a water-reservoir, *b*, into which water is forced by an ordinary force-pump (not shown in the drawing) or by any other water-forcing apparatus.

c represents a tube or pipe secured to the bottom of the water-reservoir *b*, and connected at its lower end by the interiorly-screw-threaded pipe-coupling *d*, with the horizontal pipe *e* screw-threaded exteriorly at its ends and provided with a cock, *h*.

k represents a pipe-coupling screwed upon the outer end of the pipe *e*, and *l l'* represent branch curved pipes screwed into the opposite ends of the pipe-coupling *k*, and thence curved around, so that these discharge ends lie close to and directly opposite each other. By this construction a current of water being forced from the water-reservoir *b* through the tube *c* will pass thence into the horizontal pipe *e*, and thence (the cock *h* being open) will be divided into two currents, passing through the pipes *l l'*, which will impinge against each other and against the water in the stream and propel the vessel. To the opposite screw-threaded end of the pipe-coupling *d* is secured an opposite

horizontal pipe, *e'*, provided with a cock, *h'*, a pipe-coupling, *k'*, having branch pipes *m m'* and *n n'*, substantially the same as those above described, on the opposite side of the pipe *e*, and operating in the same manner to propel the vessel in an opposite direction. Suitable rods, *o*, are secured to the cocks *h h'* and pass up into the vessel, whereby the cocks may be operated. By this construction, by opening one cock and closing the other, the vessel will be propelled in one direction, and by closing the first cock and opening the other the motion of the vessel will be reversed.

A car or boat may be propelled upon the same principle by arranging a tube vertically on the top of a steam-boiler or on the top of a water-reservoir on the car or boat and forcing steam or water through said tube, and thence through horizontal tubes having branch tubes intersecting each other at an angle, whereby the currents of steam or water are forced violently against each other in the open air, and thus propel the car or boat.

When steam is employed as the propelling-power for a boat or car the currents of steam which strike against each other to propel the boat or car must always impinge against each other in the air.

What I claim as new is—

1. In a vessel or car, the combination of a reservoir, as *b*, with pipes leading fore and aft therefrom, and provided at their ends with branch pipes diverging and then approaching each other, so that currents of steam or water escaping from said branch pipes will impinge upon each other, substantially as described.

2. The combination, with the vessel *a*, provided with the reservoir *b*, into which water is forced, of the tube *c*, pipe-coupling *d*, pipes *e e'*, having cocks *h h'*, curved branch pipes *l l'*, and pipes *m n m' n'*, having their open ends intersecting each other, substantially as described, and for the purpose set forth.

AUGUST BRACHT.

Witnesses:

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