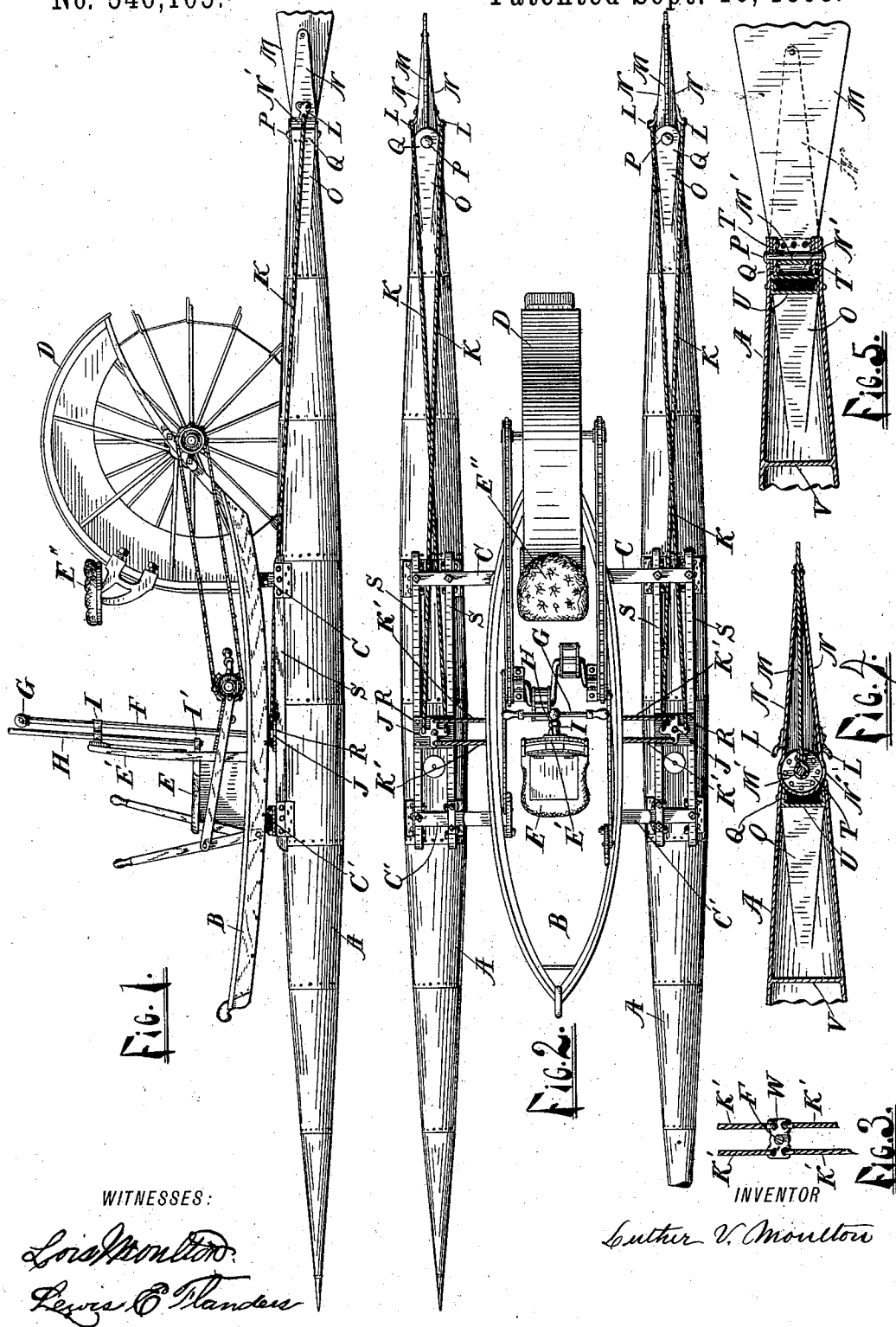


(No Model.)

L. V. MOULTON.
MARINE VELOCIPED.

No. 546,105.

Patented Sept. 10, 1895.



UNITED STATES PATENT OFFICE.

LUTHER V. MOULTON, OF GRAND RAPIDS, MICHIGAN.

MARINE VELOCIPED.

SPECIFICATION forming part of Letters Patent No. 546,105, dated September 10, 1895.

Application filed May 6, 1893. Serial No. 473,319. (No model.)

To all whom it may concern:

Be it known that I, LUTHER V. MOULTON, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Marine Velocipedes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in marine velocipedes, and its object is to provide the same with certain new and useful features, hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is a side elevation of a device embodying my invention; Fig. 2, a plan view of the same; Fig. 3, a detail, showing a plan view of the T-head at the lower end of the steering-post; Fig. 4, a detail of the rudder in horizontal section in the plane of the axis of the cylinder; Fig. 5, the same in vertical section in the same plane.

Like letters refer to like parts in all of the views.

A A are two cigar-shaped cylinders or floats arranged parallel to each other, and a short distance apart, between these and above the water, is the body B, supported at the rear by beams C and at the front by the spring C', which beams and spring are attached at their outer ends to the sills S S secured to the respective floats A. At the rear of the body B is a wheel-house D for the propelling-wheel, upon which is mounted an adjustable seat E'', and at a suitable distance forward of said seat is another chair-shaped seat E, having a back E', to the upper part of which is attached a bracket I, having two vertical openings, in one of which openings is placed the staff or post H, the lower end of which rests in the lower bracket I', and upon the upper end of which staff may be fixed an umbrella, flag, or other convenient device, at pleasure. In the other opening of the bracket I is journaled the steering-post F, having transverse handles G at the top. Said post is journaled near its lower end in the floor of the body and passing through the same terminates in a T-

head W, to the respective ends of which head are attached two cables or wires K', which cables extend laterally in opposite directions and are attached to the corresponding ends of the longitudinal arms of the crosses J, so that all three vibrate in unison about their respective axes in a horizontal plane when turned by the handles G. Said crosses J are pivoted upon plates R, secured to the sills S, and the transverse arms of said crosses are connected to the eyes L, at the respective sides of the rudders M, by means of cables or wires K, by which means the rudders are simultaneously turned from side to side, as the crosses J are turned by means of the handles G, as before described.

To symmetrically prolong the taper of the floats A so they may run easily, also to afford a strong joint between the rudder and body of the float, and to afford a suitable point of attachment for the cables K, so that they will run close to the floats, I flatten the top, bottom, and sides of the floats A, as shown at O, terminating the same in a rectangular end Q, within which is a rectangular diaphragm U, thus forming a box-shaped chamber at the end open rearwardly, with its horizontal sides prolonged beyond its vertical sides, to the former of which is pivoted the rudder by a suitable pintle P, around which the forward part M' of the rudder is turned and riveted. Said forward end of the rudder is also provided with a head N', having the form of about two-thirds of a cylinder, with its axis coinciding with the pintle P, and having a vertical cross-section adapted to close the box-shaped rear end Q, and having its forward portion within the same. This cylindrical head is formed of disks T T at each end and the curved portion of a plate N', which plate is bent and secured to said disks, and also prolonged rearward at each side of the rudder, forming tapered chambers N N, which are rectangular in cross-section, and which serve to prolong the lines of the float A to a point, and at the same time provide a suitable point of attachment and suitable leverage for the rear ends of the cables K K, and also to brace and strengthen the blade M of the rudder. Said floats are also strengthened by a suitable number of transverse partitions V, as occasion requires. It will be observed that the

cables K run in contact with the surface of the floats and are attached to slightly-projecting rounded eyes at each side of the rudder-heads, and that no cables or other connections extend from side to side behind the wheel. Thus, there are no obstructions to become clogged with vegetable or other floating matter, and a serious disadvantageous feature of other marine velocipedes is, therefore, overcome. It is evident that this form of steering mechanism is applicable to any boat having a stern wheel and two rudders, (one rudder at each side,) and I therefore do not limit myself to its use in conjunction with two parallel floats.

I do not claim herein the construction of boat and propelling mechanism shown and described, as the same is made the subject of a separate application filed by me November 11, 1889, Serial No. 329,969; but

What I do claim is—

1. The combination with parallel floats, of rudders pivoted to the same, a body supported between said floats, a post, journaled on said body and having a T-head, crosses pivoted on said floats, and cables or wires extending oppositely from said T-head to the respective crosses and rudders on each float, substantially as described.

2. The combination of two parallel floats having rudders with cylindrical heads, parallel sills on said floats, a body between said floats supported on said sills, a substantially vertical steering post journaled on said body and provided at its lower end with a T head and at its upper end with a handle, crosses journaled on plates attached to said sills, cables or wires extending oppositely from said T-head to the longitudinal arms of said crosses, and cables or wires extending from the transverse arms of the respective crosses to the sides of the respective rudders and in contact with said floats, substantially as described.

3. In a marine velocipede, a cylindrical float tapered rearwardly and flattened on four sides, and provided with a transverse diaphragm to form a rectangular chamber at the end of said float, and a rudder having a cylindrical head and pivoted to turn partially within said chamber, substantially as described.

4. In a marine velocipede, in combination with a substantially cylindrical, or cigar shaped float terminating in a box shaped end,

a rudder having a substantially semicylindrical head pivoted within said end and means for turning said rudder upon its pivot; and prolongations of said head forming tapered chambers at each side of said rudders, substantially as described.

5. In a marine velocipede, a substantially cigar shaped float terminating at the rear in a substantially square end, having projecting upper and lower sides, a cylindrical rudder head pivoted to said projecting sides, said head prolonged at each side of the rudder to strengthen the same and prolong the lines of the cylinder to a point and disks to close the ends of said rudder head, substantially as described.

6. The combination of two substantially cigar shaped floats, having bulk heads near the rear and terminating in box shaped ends, rudders having substantially cylindrical heads pivoted in said ends, cords or wires attached to the respective sides of said rudder heads, and extending forward and inward and attached to a T head on a steering post having handles, substantially as described.

7. The combination of two cigar shaped floats, terminating in box shaped rear ends, rudders having substantially semi-cylindrical heads pivoted within said ends, and prolonged at each side of said rudders, a body supported by and between said floats, a post journaled upon said body, a T head at the bottom, and handles at the top of the same, crosses pivoted upon said floats, and cords or wires extending from the respective sides of said rudders to said crosses and other wires or cords extending from said crosses to said T head, substantially as described.

8. The combination with a boat having a stern wheel, and a rudder at each side thereof, of a vertical steering post having a T head and a handle, crosses pivoted in the plane of said T head, and cables or wires oppositely extending from said T head to the longitudinal arms of said crosses, and cables or wires extending from the transverse arms of said crosses to the respective sides of said rudders, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LUTHER V. MOULTON.

Witnesses:

LOIS MOULTON,

LEWIS E. FLANDERS.