

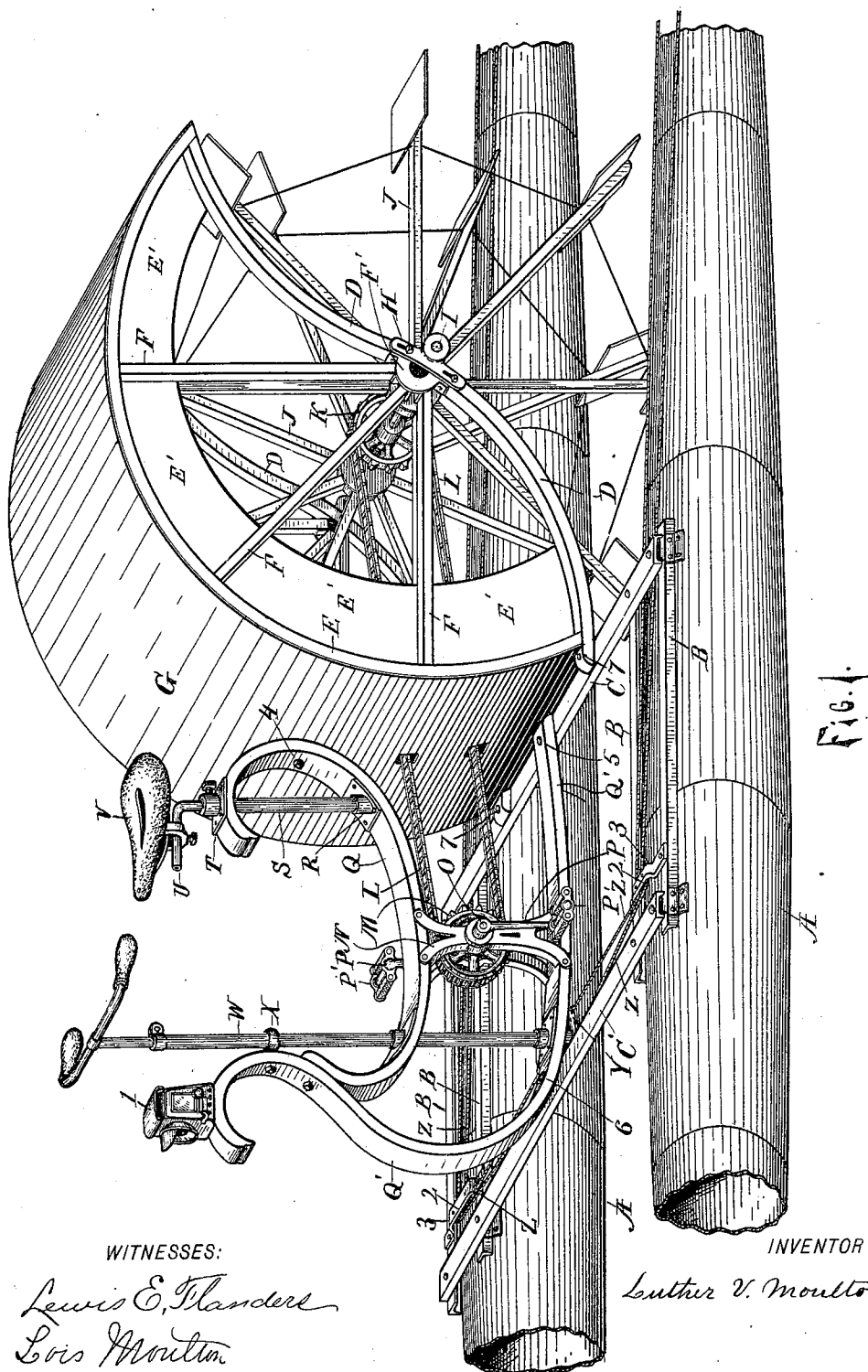
(No Model.)

2 Sheets—Sheet 1.

L. V. MOULTON.
MARINE VELOCIPED.

No. 582,666.

Patented May 18, 1897.



WITNESSES:

Lewis E. Flanders
Lois Moulton

INVENTOR

Luther V. Moulton

(No Model.)

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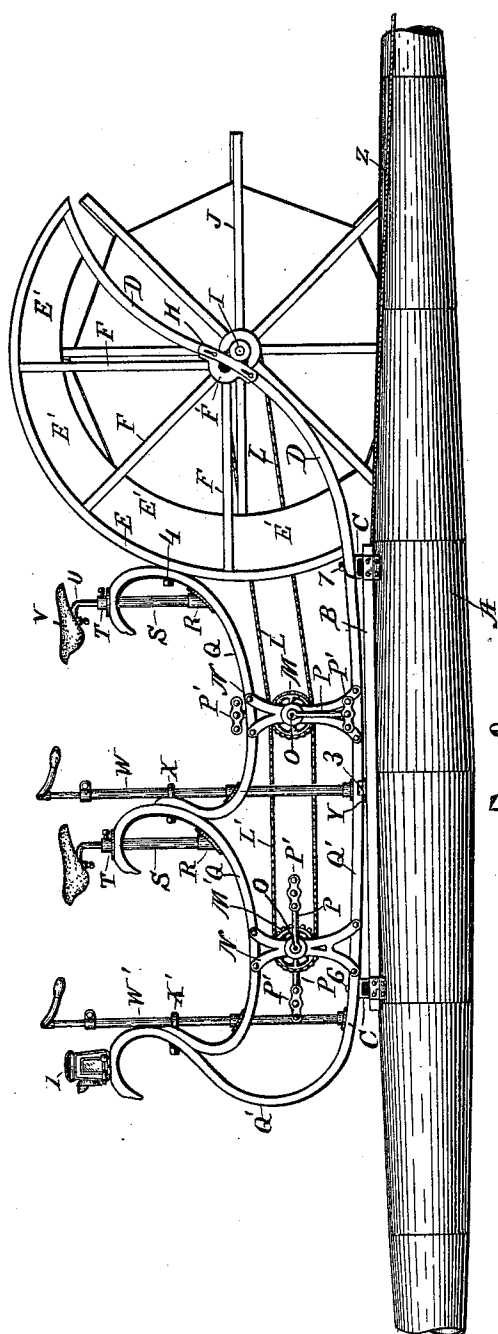


FIG. 2.

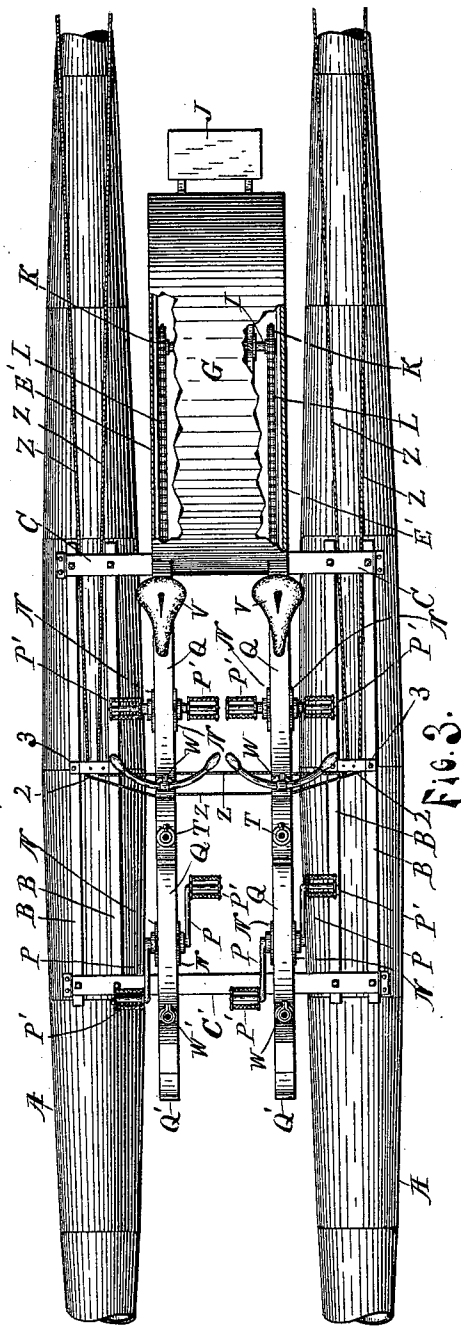


FIG. 3.

Witnesses:
Lewis E. Flanders
Lois Moulton

Inventor:
Luther V. Moulton

UNITED STATES PATENT OFFICE.

LUTHER V. MOULTON, OF GRAND RAPIDS, MICHIGAN.

MARINE VELOCIPED.

SPECIFICATION forming part of Letters Patent No. 582,666, dated May 18, 1897.

Application filed January 30, 1896. Serial No. 577,481. (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 more particularly to the wheel-house and frame for the same; and its object is to provide the same with certain new and useful features, as hereinafter more fully described, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which—

Figure 1 is an isometric perspective of a device embodying my invention; Fig. 2, a side elevation of a modification thereof, and Fig. 3 a plan view of the same.

Like letters and numerals refer to like parts in all of the figures.

A A are two parallel floats of any suitable construction provided with parallel angle-bars B and connected by suitable beams C C'. The sills D D of the wheel-house are secured at their forward ends to the rear beam C by bolts 7 and are oppositely bent or curved at their respective ends, whereby they are substantially horizontal where they engage said beam and suitably inclined at the middle where the adjustable journal-bearings H are attached, and rearwardly extended at their upper ends to suitably cover the wheel. Attached to the upper side of said sills D are segmental bars E, concentric with the axis of the bearings H, and extending from said bars at intervals are radial braces F, secured to the said bars E at one end and to socket-castings F', attached to the sills D, opposite the bearings H.

E' are segmental panels extending inward from the bars E, and G is a curved plate attached to said bars, which plate and panels serve to close in the upper part of the wheel-house.

The paddle-wheels J J are mounted on a shaft I, journaled in the adjustable bearings H and driven by a sprocket-wheel K, actuated

by a chain L, extending from said sprocket-wheel to a similar wheel M on a shaft O, provided with cranks P and pedals P' at its respective ends.

To suitably support in place the various parts as hereinafter described, I provide a frame consisting of an upper bar Q, a lower bar Q', and hangers N. Said lower bar is attached at its rear end to the rear sill C by a bolt 5, and extending forward in a downward curve rests on the forward sill C' and is attached thereto by a bolt 6. It is thence extended in a curve forward and upward, having a reversed curve at its upper end, the rear portion of which reverse curve is provided with an eyebolt X, engaging and supporting the steering-post W, and the top portion of said curve supports the headlight 1. Said steering-post extends downward through suitable openings in the bars Q and Q' and is rotative therein, being provided with a T-head Y at its lower end, to which head are attached cables Z to operate the rudders, and extended thereto by way of pulleys 2 in the casings 3, secured to the bars B.

The upper bar Q has a downwardly-curved middle portion and upwardly and inwardly curved ends and is located above the wheel M and forward part of the chain L and in the vertical plane of the lower bar Q'. The rear curve of said bar Q engages and supports the wheel-house, being secured thereto by a bolt 4. Vertically across the rear curve of said bar is the saddle-post S, having the adjustable saddle-arm U and saddle V at its upper end and secured to the bar Q by suitable flanges R and T. The forward end of the bar Q engages the rearward curve in the upper part of the bar Q' and supports the same, being attached thereto by any suitable fastening. Hangers N, having suitable bearings for the shaft O and diverging arms at the respective ends, connect the bars Q and Q' and are firmly secured to the same.

By the described construction I provide a simple, cheap, and serviceable frame and wheel-house, the bar Q serving as a chain-guard and also supporting the wheel-house, the saddle-post S, and upper part of the hangers N. The lower bar Q' serves to support the lower ends of said hangers, the steering-post both above and below, and the headlight.

The hangers N serve as journal-bearing for the shaft O, and also as braces against longitudinal and vertical strains on the bars Q Q'. By said construction of wheel-house and frame they may be readily detached for shipment or storage by removing the bolts 4, 5, 6, and 7. So, also, by extending the lower part of the bar Q' and duplicating the upper bar Q, hangers N, and corresponding operative parts a tandem construction is easily made for two riders, as shown in Fig. 2, and by placing the described frame and operating parts in duplicate at the respective sides of the wheel-house and providing a single paddle-wheel J and two sprocket-wheels K, as indicated in Fig. 3, a suitable device for four, or double tandem, can be easily made, or by placing two single frames like that shown in Fig. 1 side by side, as are the tandem frames in Fig. 3, the device may be arranged to permit two to ride side by side.

Thus it will be seen that the frame described is adapted to be made single, as in Fig. 1, or tandem, as in Fig. 2; or, by placing two frames side by side, as in Fig. 3, two or four may be provided for to ride side by side in couples. It is also evident that the tandem arrangement may be extended indefinitely by properly extending the lower bar and repeating the upper bar and operative parts, as described for the tandem construction.

I do not limit myself to the construction of marine velocipedes solely.

The described invention can readily be utilized in the construction of land vehicles having two or more wheels to run on the ground.

Having thus fully described my invention, what I claim is—

1. In a marine velocipede in combination with a transverse beam, a paddle-wheel, adjustable bearings, and a housing for said wheel, oppositely-curved sills having their forward ends substantially horizontal and attached to said beam, and having inclined middle portions supporting said bearings and rearwardly-extended upper portions supporting the housing substantially as described.

2. In a marine velocipede a wheel-house consisting of oppositely-curved sills having substantially horizontal forward ends, inclined middle portions and rearwardly extended and curved upper ends, bearings adjustably attached to said inclined portions segmental bars concentric with said bearings, radial braces extending from opposite said bearings to said bars a socket-casting connecting said braces and sills, segmental panels connecting the outer ends of said braces, and a curved plate attached to said bars, substantially as described.

3. In a marine velocipede, the combination of a wheel-house a lower bar connected to the lower part of the wheel-house at its rear end, and upwardly curved at its forward end, and an upper bar in the same vertical plane with the lower bar, and having upwardly-curved ends, attached to the forward part of the

wheel-house, and to the upwardly-extended forward part of the lower bar, substantially as described.

4. In a marine velocipede, in combination with the wheel-house, a frame consisting of a lower bar having an upturned and curved forward end, and an upper bar in the same vertical plane, attached at its forward end to the upturned end of the lower bar, and attached near the rear end to the wheel-house, and hangers connecting said bars, substantially as described.

5. In a marine velocipede, in combination with the wheel-house, saddle-post, steering-post, and driving-shaft; a lower bar having an upturned forward end supporting the steering-post, an upper bar having upwardly and inwardly curved ends, and attached near its respective ends to said upturned end of the lower bar, and to the wheel-house, and having its rear curve engaging and supporting the saddle-post, and hangers attached at their respective ends to said upper and lower bar, and having journal-bearings for said driving-shaft, substantially as described.

6. In a marine velocipede, in combination with the paddle-wheel, and its shaft, the driving-shaft, the mechanism for connecting and driving said shafts, the saddle-post, and the steering-post; a wheel-house having oppositely-curved sills, adjustable bearings for the paddle-wheel shaft attached to said sills, a lower bar having its forward end curved upward and forward and supporting the steering-post, an upper bar in the same vertical plane, and having its respective ends curved upward and inward, and attached to the upturned forward part of the lower bar at its forward end, and attached to the wheel-house, and supporting the saddle-post near its rear end, and hangers having journal-bearings for the driving-shaft, and diverging arms attached to said bars, substantially as described.

7. In a marine velocipede, the combination of two parallel floats, beams connecting the same, a wheel-house secured to the rear beam, a wheel rotative in said wheel-house, a lower bar attached to said beams, and curved upward at its forward end, a steering-post, supported by said forward end, an upper bar having upwardly and inwardly curved ends and attached at its forward end to the upturned end of the lower bar, and to the wheel-house at its rear, a saddle-post extending vertically across the rear curved part of said bar, and supported thereby, hangers connecting the middle part of said bars, and provided with bearings, a shaft rotative in said bearings, having cranks and pedals attached, and means for transmitting motion from said shaft to the paddle-wheel shaft, substantially as described.

8. In a marine velocipede, the combination of two parallel floats, beams connecting the same, a wheel-house attached to the rear beam, a paddle-wheel rotative in said wheel-

house a lower bar attached to said beams and curved upward, at its forward end terminating in a reverse curve at the top, a headlight, and steering-post supported by said lower
5 bar, an upper bar having a downward-curved middle, and upward and inward curved ends, and attached at its respective ends to the upturned lower bar, and to the wheel-house, a saddle-post extended vertically across the
10 rear curved portion of said bar, and attached thereto, hangers connecting said bars, having

diverging arms, and journal-bearings, a shaft in said bearings, having cranks and pedals, and sprocket wheels and chains connecting said shaft to the paddle-wheel shaft, substantially as described. 15

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

LUTHER V. MOULTON.

Witnesses:

LEWIS E. FLANDERS,
LOIS MOULTON.