

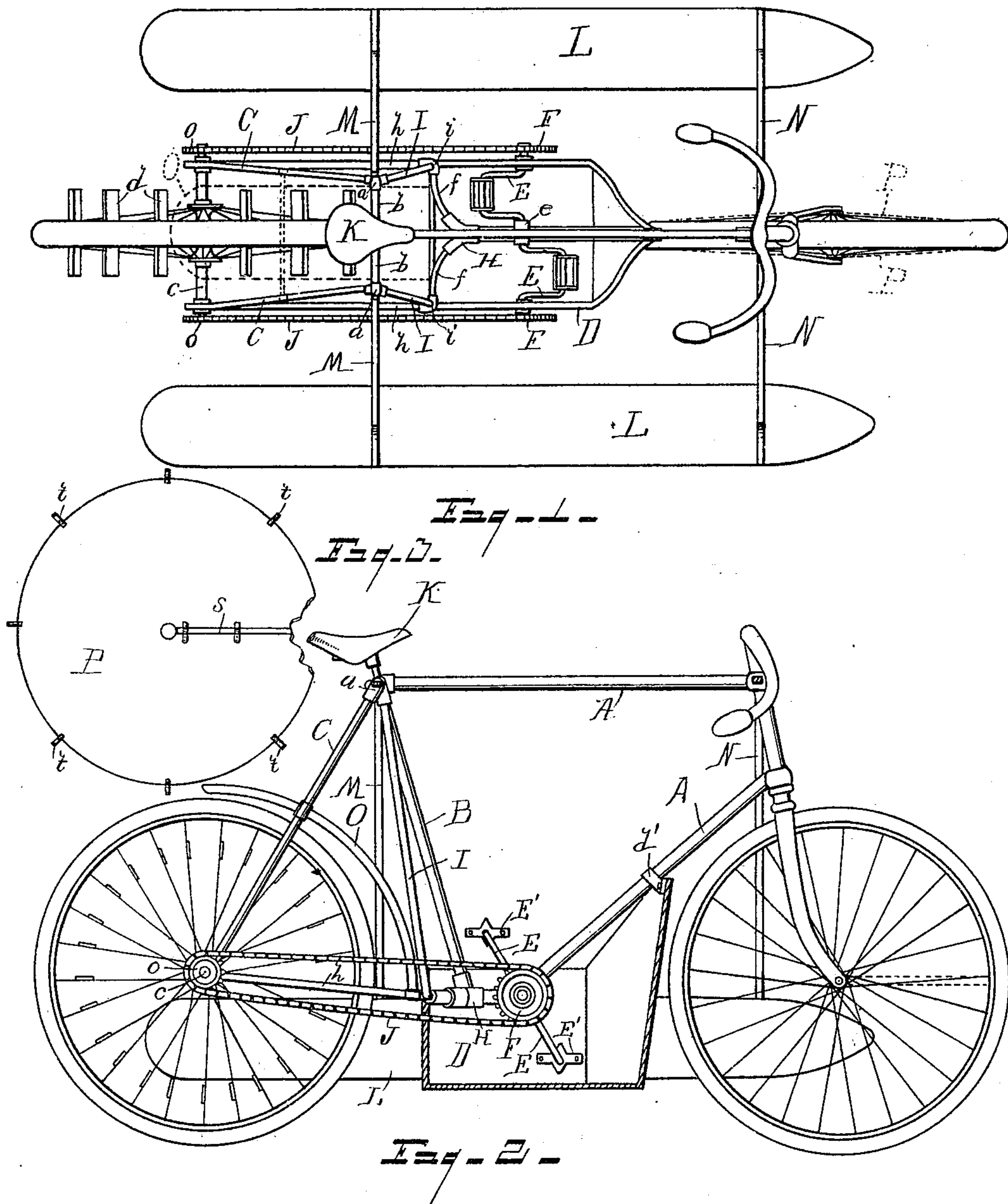
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J. C. YOUNG, JR.
LAND AND MARINE VELOCIPED.

(Application filed Mar. 3, 1897.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JOHN C. YOUNG, JR., OF DETROIT, MICHIGAN.

LAND AND MARINE VELOCIPEDE.

SPECIFICATION forming part of Letters Patent No. 619,818, dated February 21, 1899.

Application filed March 3, 1897. Serial No. 625,869. (No model.)

To all whom it may concern:

Be it known that I, JOHN C. YOUNG, Jr., a citizen of the United States, residing at Detroit, in the county of Wayne, State of Michigan, have invented certain new and useful Improvements in Land and Marine Velocipedes; and I do 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, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

15 This invention relates to a combined land and marine velocipede; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claim.

20 The object of the invention is to provide a velocipede of simple and light construction in which the arrangement is such as to render it readily adaptable for use upon either land or water, which object is attained by the construction illustrated in the accompanying drawings, in which—

30 Figure 1 is a plan view of my improved device. Fig. 2 is a side elevation of same, the float upon the inner side being removed and a part of the feet-inclosing case or guard being in section; and Fig. 3 is an elevation of one of the canvas disks adapted to be attached to the sides of the front wheel to afford means for steering the device when in the water.

35 Referring to the letters of reference, A designates the frame of the machine, which is of the usual diamond pattern and in which are mounted the front and rear wheels in the ordinary manner. To adapt the frame to the requirements of this construction, there is provided at the top or upper end of the seat-mast B a transverse bar or tube *b*, (shown more clearly in Fig. 1,) to the outer ends of which 45 the upper ends of the rear forks C are secured by a coupling *a*, by which arrangement said forks are separated sufficiently to permit of the free passage of the paddles *d* between them, said paddles extending transversely of the rear wheel and being secured to the spokes thereof or mounted thereon in any suitable

manner, the length of the rear axle *c* being such as to accommodate this construction.

Mounted upon the frame and depending centrally therefrom is an inclosing case D, 55 which serves as a guard to protect the feet of the rider when propelling the machine in the water. This guard is tapered at its forward end to serve as a cut-water and is attached at its forward portion by means of a suitable clip *d'* to the lower inclined tube of the frame 60 extending from the steering-head and supporting at or near its point of union with the lower end of the seat the mast and central crank-bearing *e*, which supports the center of 65 the crank-shaft E, the outer ends of which extend through and are journaled in the opposite sides of the case D and carry the sprocket-wheels F. The pedals E' are mounted on the crank-shaft between the central and 70 outer bearings and are adapted to turn freely within said case. At the lower end of the seat-mast is a Y-coupling H, from which extend the curved tubes *f* to the rear upper corners of the case D, where they are united 75 thereto by a coupling *i*, which also receives the ends of the lower side tubes *h* of the frame, whereby the frame and case are securely braced. As an additional support for the case D and frame there are employed the side 80 tubes I, which extend obliquely downward from the couplings *a* to the couplings *i* and serve to strengthen the frame against lateral strain.

Upon the outer ends of the axle *c* are the 85 small sprocket-wheels *o*, which are connected by a chain J with the sprocket-wheels F on the ends of the crank-axle, whereby the rear wheel is driven through the medium of the pedals, the operator sitting on the saddle K, 90 mounted upon the upper end of the seat-mast, as in the ordinary bicycle.

To adapt the device to water, there are provided two floats L, of suitable buoyancy, which are located on opposite sides of the 95 machine and are secured thereto by means of suitable rods or tubes M, which extend obliquely downward from the couplings *a* and are attached at their lower ends to said floats, near the rear ends thereof, the forward ends 100 of said floats being connected to the steering-head on opposite sides by like obliquely-ex-

tending tubes N, whereby said floats are securely retained in place on each side of the wheel and at the proper elevation. Additional braces may be employed to more firmly
 5 retain said floats, if desired.

The floats L, as well as the guard or case D, may be made detachable from the frame of the wheel, if desired, so that they may be removed when riding upon the land. The operation of this device is that of an ordinary
 10 velocipede or bicycle, the operator sitting upon the saddle and propelling the machine through the medium of the pedals. When in the water, the machine settles until the
 15 weight is borne by the floats, which causes the rear wheel to dip sufficiently to give the paddles *d* thereon proper contact with the water, enabling the device to be readily propelled through the operation of the pedals.
 20 The sprocket-chain running upon each side equalizes the draft upon the rear axle and, being outside of the case or guard D, prevents the feet of the rider from becoming wet by the water being carried over by said chains.
 25 To provide means for steering the device in the water, there is employed a detachable disk P, of canvas or other suitable material, which is provided with an opening from the center to the periphery, which enables it to
 30 be placed upon the side of the front wheel between the wheel and the fork, said disk being secured in place by suitable hooks *t*, which engage the rim of the wheel. This arrangement makes a steering-rudder of the
 35 front wheel, which may be turned through the medium of the handle-bars to stand at an angle to the course of the machine, thereby deflecting the machine and turning it from side to side, as may be desired.

40 Mounted upon the rear portion of the frame

over the rear wheel is a wide guard O, which is of sufficient width to embrace the paddles *d* on said wheel and prevent the water thrown therefrom from striking the operator seated upon the saddle. This guard may be made
 45 detachable, so as to enable it to be removed when propelling the machine upon the land.

Having thus fully set forth my invention, what I claim as new, and desire to secure by Letters Patent, is—

50 In a land and marine velocipede, the combination of the frame carrying the transporting-wheels, said frame having the transverse bar at the top of the seat-mast, the rear forks attached at their upper ends to the outer
 55 ends of said bar by means of a coupling, the rear wheel journaled in the frame and having transverse paddles the ends of which pass between said rear forks, the inclosing case supported on said frame, the Y-coupling at
 60 the base of the seat-mast supporting said case, and the side tubes extending obliquely downward from said transverse bar, the crank-axle journaled at its ends in said case and carrying sprocket-wheels, the sprocket-wheels on
 65 the outer ends of the axle of the rear wheel, and the chains connecting the sprocket-wheels of the crank-axle with the sprocket-wheels on the axle of the rear wheel, the front wheel mounted in the frame to turn
 70 from side to side, the floats on opposite sides of the frame, and the rods extending obliquely downward from the frame to said floats to maintain them in proper position.

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

JOHN C. YOUNG, JR.

Witnesses:

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 H. R. WHEELER.