No. 632,276. Patented Sept. 5, 1899.

D. OLTMANN.

WATER VEHICLE.

(Application filed June 23, 1899.)

(No Model.) 2 Sheets—Sheet 1.

FIG. 1

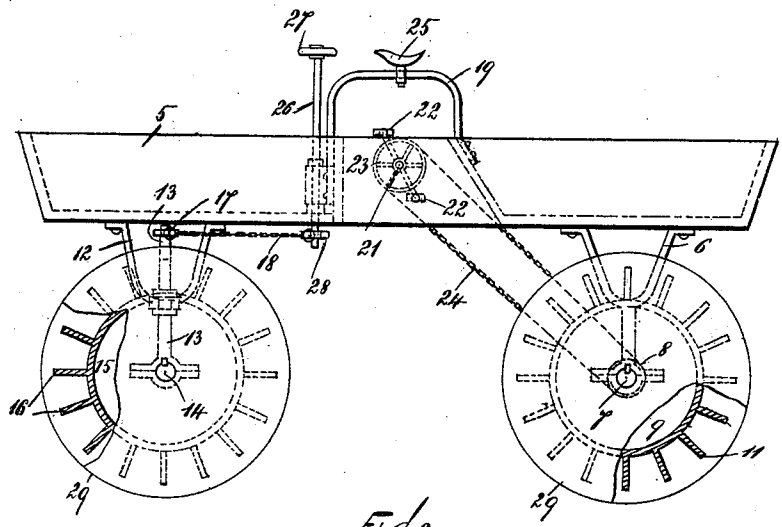
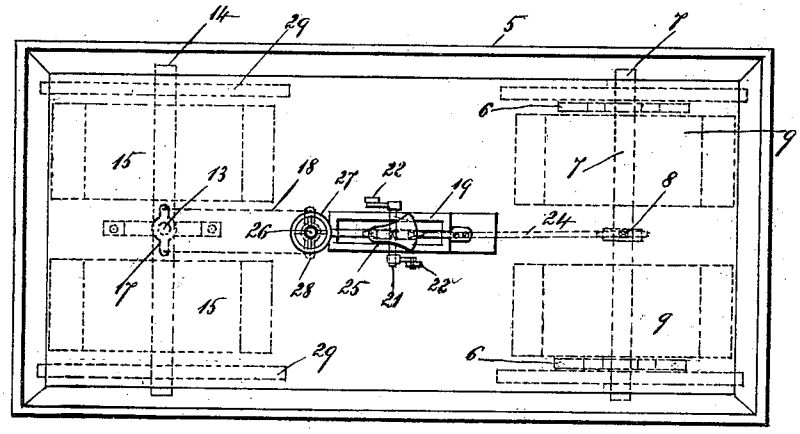


FIG. 2



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FIG. 3.

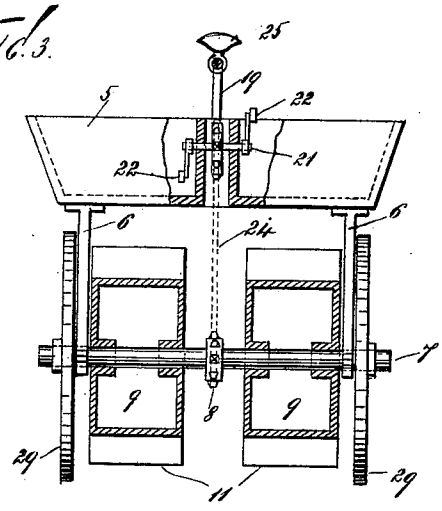
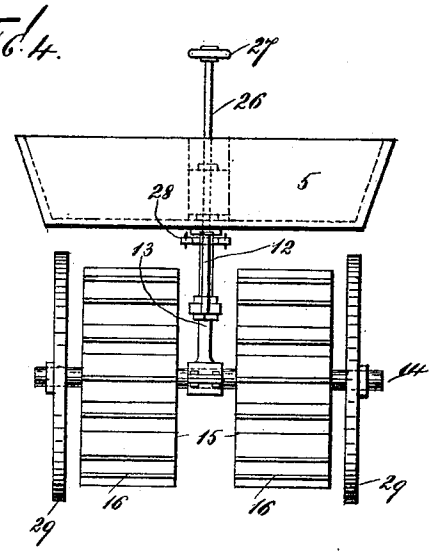


FIG. 4.



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UNITED STATES PATENT OFFICE.

DIEDRICH OLTMANN, OF NEW YORK, N. Y.

WATER-VEHICLE.

SPECIFICATION forming part of Letters Patent No. 632,276, dated September 5, 1899.

Application filed June 23, 1899. Serial No. 721,545. (No model.)

To all whom it may concern:

Be it known that I, DIEDRICH OLTMANN, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Water-Vehicles, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to water-vehicles; and the object thereof is to provide an improved device of this class which is designed to be operated either on water or land, and which is simple in construction and operation, and which comprises a suitable body, frame, or support, hangers suspended therefrom, transverse shafts or axles mounted in said hangers and provided with drums which are adapted to serve as wheels when on land, said drums being provided with blades whereby they operate as paddle-wheels in water, and suitable propelling and steering or guiding devices, the propelling devices being operated by means of an ordinary pedal-crank.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a side view of my improved vehicle; Fig 2, a plan view thereof; Fig. 3, a rear end view, partly in section; and Fig. 4, a front end view thereof.

In the drawings forming part of this specification the separate parts of my improvement are designated by the same numerals of reference in each of the views, and in the practice of my invention I provide a suitable body, frame, or support 5, from the rear end of which are suspended two hangers 6, in which is mounted a shaft or axle 7, provided centrally with a sprocket-wheel 8, and said shaft is provided on the opposite sides of said sprocket-wheel and between the hangers 6 with drums 9. The perimeters of said drums are provided with transverse blades 11, whereby they are caused to operate as propellers when in the water, and said drums 9 may be made of any desired material and are hollow, as shown in Figs. 1 and 3.

Secured centrally to the bottom of the forward portion of the body, frame, or support 5 is a hanger 12, in which is mounted a vertical shaft 13, free to turn in said hanger, but cannot move vertically therein, and mounted in the lower end of said hanger is a shaft or axle 14, which is provided with two hollow drums 15, similar in all respects to the drums 9, said drums 15 being also provided with transverse blades 16. The upper end of the shaft 13, beneath the body, frame, or support 5, is provided with a transverse head 17, with the opposite ends of which are connected chains, cords, or other flexible devices 18, and centrally of the body, frame, or support 5 is a suitable frame 19, mounted on and secured to the body, frame, or support 5, and centrally of said body, frame, or support is mounted a transverse pedal-crank 21, provided with pedals 22, and a sprocket-wheel 23, and the sprocket-wheels 8 and 23 are in practice geared in connection by an ordinary drive-chain 24.

Mounted on the frame 19 is a seat 25, and forwardly of said seat is a vertical shaft 26, provided at its upper end with a steering wheel or handle 27 and the lower end of which passes through the body, frame, or support and is provided with a cross-head 28, with the opposite ends of which the chains, cords, or other flexible devices 18 are connected. The shafts 7 and 14 are also provided each with two wheels 29, which are preferably in the form of disks, and which are keyed to said shafts outside the drums 9 and 15, and which revolve with said shafts, and which are greater in diameter than the drums 9 and 15, including the blades 11 and 16 thereon, as clearly shown in Figs. 1, 3, and 4.

The operation will be readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof:

The vehicle is propelled by means of the pedal-shaft 21, by which the rear axle 7 and the drums 9 are operated, and said vehicle may be guided or steered by means of the shaft 26 and the cords or other flexible devices 18, which are connected with the cross-head 17 of the vertical shaft 13, and carrying at its lower end the shaft or axle 14 of the drums 15. In practice the drums 15 are preferably keyed to the axle 14 and turn there-

with, said axle being adapted to turn in its bearings at the lower end of the shaft 13, and the drums 9 are also keyed to the axle 7.

The drums 9 and 15 may be made of any desired size, and the body, frame, or support 5 may be made to represent a boat or any desired article. It will be observed that the wheels 29 project beyond the blades on said drums, which construction enables the vehicle to move or be operated on land, and the wheels 29 on the forward axle 14 also facilitate the steering of the vehicle when in the water.

Having fully described my invention, I claim as new and desire to secure by Letters Patent—

1. A vehicle of the class described, comprising a body, frame, or support, an axle suspended beneath the rear end thereof, another axle suspended beneath the front end thereof so as to swing in a horizontal plane, each of said axles being provided with drums, the perimeters of which are provided with transverse blades, and with wheels outside of said drums and means for rotating the rear axle and turning the front axle in a horizontal plane, substantially as shown and described.

2. A vehicle of the class described, comprising a body, frame, or support, an axle suspended beneath the rear end thereof, another axle suspended beneath the front end thereof so as to swing in a horizontal plane, each of said axles being provided with drums, the perimeters of which are provided with transverse blades, and means for rotating the rear axle and turning the front axle in a horizontal plane, said axles being also provided with side wheels which are greater in diameter than said drums and the blades thereon, substantially as shown and described.

3. A vehicle of the class described, comprising a body, frame, or support, an axle suspended beneath the rear end thereof, another axle suspended beneath the front end thereof by a vertical shaft rotatably supported, drums connected with both of said axles, the perimeters of which are provided with transverse blades, and side wheels secured to said axles which are greater in diameter than said drums, and the blades thereon, a supplemental frame mounted above the rear end of the main body, frame, or support, a pedal-shaft geared in connection with the rear axle, and steering devices in connection with the vertically-arranged shaft which suspends the front axle, substantially as shown and described.

4. A vehicle of the class described, comprising a body, frame, or support, axles suspended beneath the front and rear ends thereof, the front axle being adapted to swing in a horizontal plane, drums mounted on said axles, the perimeters of which are provided with blades, side wheels secured to said axles, and means for operating said axles, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 20th day of June, 1899.

DIEDRICH OLTMANN.

Witnesses:
JOHN THOLKEN,
JOHN HALSALL.