(No Model.)

J. KAUTZ.

BOAT.

No. 603,469. Patented May 3, 1898.

Fig. 1.

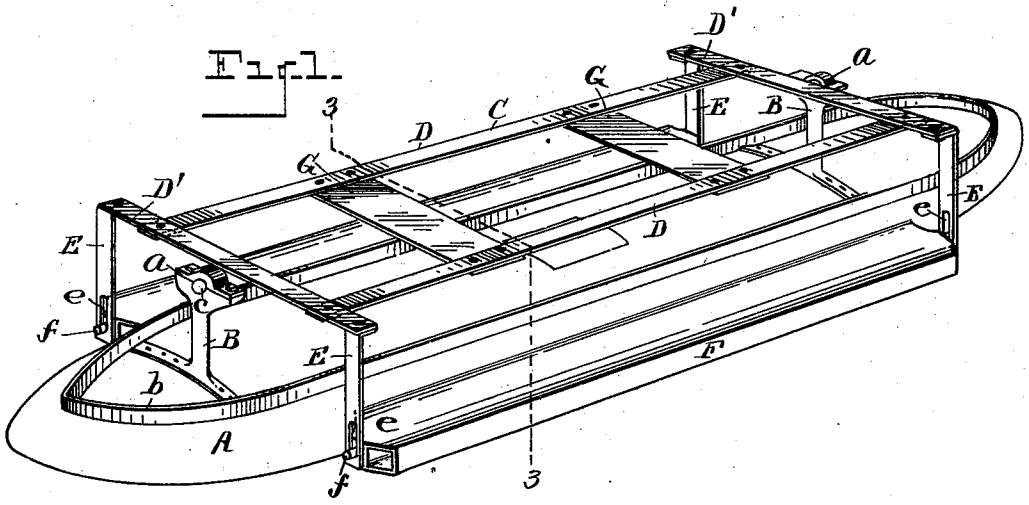
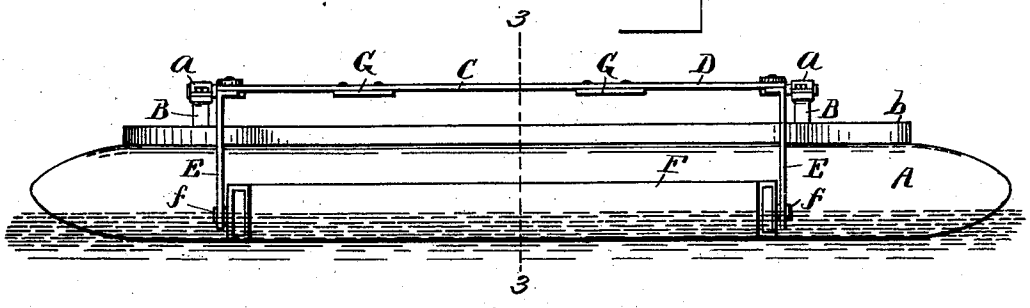


Fig. 2.



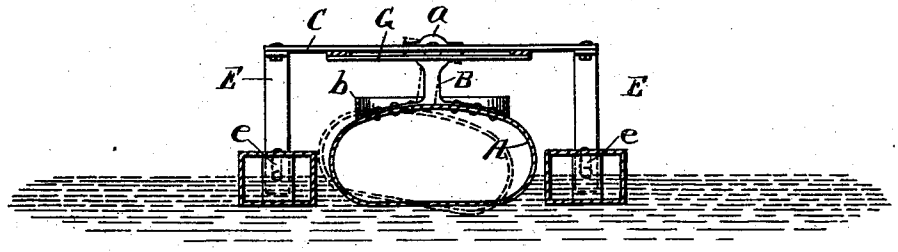


Fig. 3.

WITNESSES

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BOAT.

SPECIFICATION forming part of Letters Patent No. 603,469, dated May 3, 1898.

Application filed September 20, 1897. Serial No. 652,306. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KAUTZ, 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 Boats; 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.

This invention relates to new and useful improvements in boats especially designed for small pleasure-boats; and it consists in the construction and arrangement of parts hereinafter fully set forth, and pointed out particularly in the claims.

The object of the invention is to provide a boat which may be propelled by oars or by means of a sail in which the arrangement is such as to prevent the boat from sinking or capsizing, and a further arrangement whereby the rocking of the boat through the movement of the occupants or the motion of the water is obviated. This object is attained by the construction illustrated in the accompanying drawings, in which—

Figure 1 is a perspective of my improved boat. Fig. 2 is a side elevation of the same. Fig. 3 is a transverse section on line 3 3 of Fig. 2.

Referring to the letters of reference, A designates the hull of the boat, which may be of any suitable form and constructed of any suitable material. This hull is of the closed-deck pattern, whereby it is rendered air-tight and therefore insured against sinking. Upon the deck of the hull is a low rail *b*, which rises slightly above the deck and serves to prevent articles from sliding from the rounded face thereof. Rising from the deck at each end is a vertical standard B. These standards are provided at their upper ends with a suitable journal-bearing *a*.

C designates a supporting-frame, which consists of the longitudinal side rails D and the cross-rails D′, connecting the ends thereof. Secured to the longitudinal center of the cross-rails D′ are the short shafts or pintles *c*, which are journaled in the bearing *a*, carried by the standards B, whereby the frame C is pivoted above the hull.

Depending from the outer ends of the cross-rails D′, which project beyond the sides of the hull, are the vertical bars E, whose upper ends are firmly secured to said cross-pieces and whose lower ends are provided with a vertical slot *e*. Extending longitudinally of the hull, on each side thereof, are the hollow ballast-floats F, which are open at each end, so as to permit a flow of water therethrough. These floats are provided in their opposite ends with a short shaft *f*, which is journaled in the vertical slot in the lower ends of the depending bars E. These ballast-floats are made of light buoyant material and are adapted to be submerged to about half their depth, as shown in Figs. 2 and 3, and are so mounted in the depending bars E as to enable them to revolve and to rise and fall with the action of the water.

The frame C is designed to support the occupants of the boat and is provided with suitable seats G, mounted on said frame, and which may be located at any desired point. When seated, the feet of the occupant will rest upon the deck of the hull within the rail *b*.

The boat is designed to be driven by a sail attached to a mast, (not shown,) which may be stepped in the hull at any desired point, or said boat may be propelled by means of oars, the locks for which may be mounted upon the frame C.

It will be seen that while the hull of the boat and the frame C are united by means of the pivoted connection between them the hull is permitted to sway from side to side, as shown by dotted lines in Fig. 3, while said frame remains practically horizontal, so that the rocking motion of the hull is not imparted to the frame upon which the occupants are seated. It will also be seen that by means of the ballast-floats upon each side of the hull, which are partly filled with water, a sudden tilting of the frame C to either side is obviated, owing to the fact that said frame is pivoted to the hull A, and in order to depress one side of the frame the opposite side must rise. The weight of the water in the float prevents this action of the frame, as the float cannot

rise only as the water discharges therefrom, which operation is necessarily slow and serves to maintain the frame always in a horizontal position.

By pivoting the ballast-floats F in the vertical slots of the bars E the action of a wave or swell striking the float on either side instead of affecting the equilibrium of the frame C will merely rotate the float upon its pivots *f* or cause it to rise and fall in the slots *e*, so that the supporting-frame is but little affected by any disturbance of the surface of the water.

The boat because of the air-tight feature of its hull is prevented from sinking, and because of the ballast-floats on each side thereof it cannot be capsized. The supporting-frame may be of light metal bars and may be of such construction as to permit of properly mounting oars thereon, so as to propel the boat by this means, such change involving no departure from the spirit of my invention.

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

1. In a boat of the character described, the combination with the hull, of the supporting-frame mounted on the hull and carrying the seats for the occupants of the boat, the hollow ballast-floats open at each end pivoted to the bars depending from said supporting-frame and adapted to revolve.

2. In a boat of the character described, the combination with the hull, the standards rising from the deck thereof, the supporting-frame pivotally mounted on said standards and having the four depending bars provided with slots in their lower ends, and the hollow ballast-floats having an opening therethrough and journaled in said slots.

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

JOSEPH KAUTZ.

Witnesses:
EDGAR S. WHEELER,
M. A. MARTIN.