

1,369,670.

Patented Feb. 22, 1921.
2 SHEETS—SHEET 1.

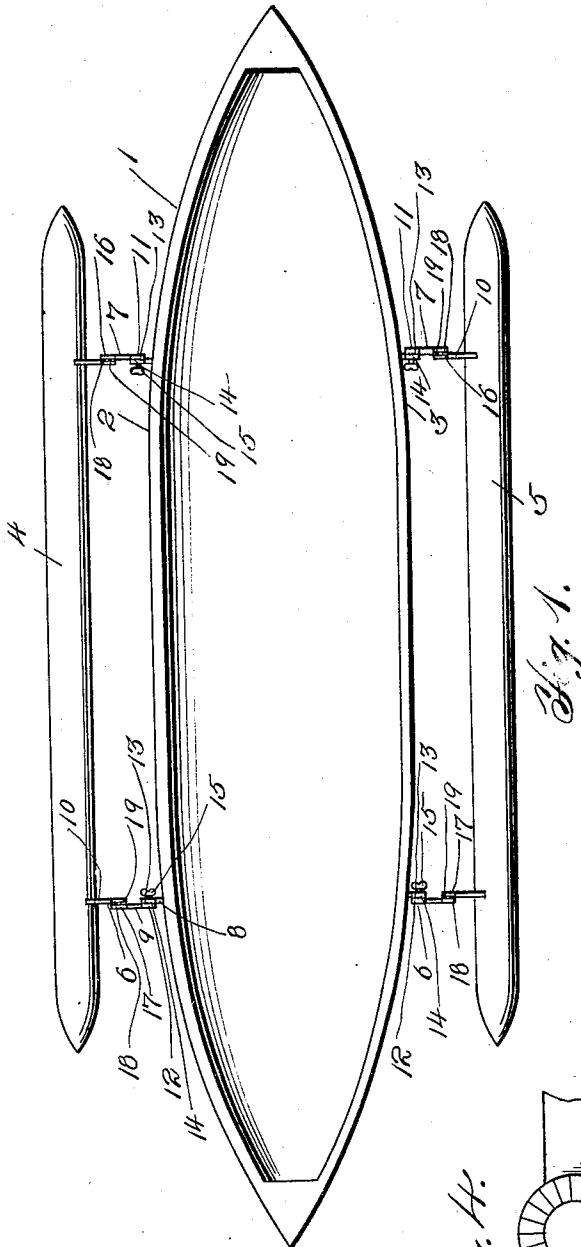


Fig. 1.

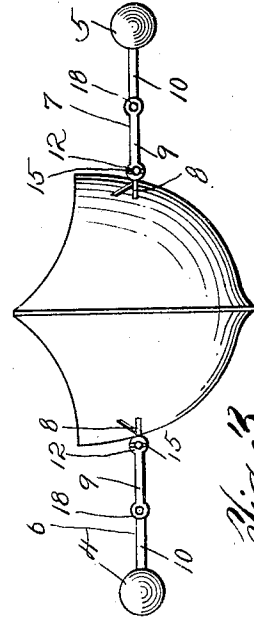


Fig. 3.

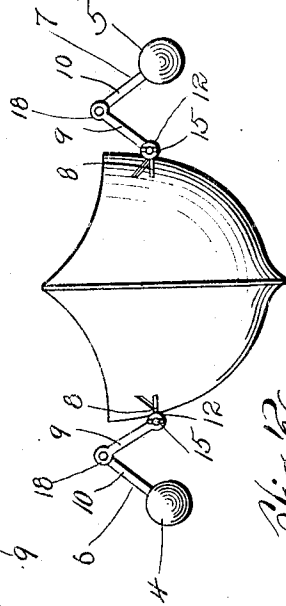


Fig. 12.

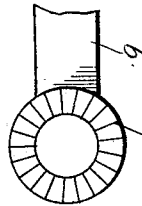


Fig. 14.

Witnesses
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2 SHEETS—SHEET 2.

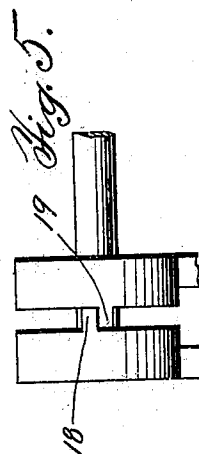


Fig. 6.

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UNITED STATES PATENT OFFICE.

JOHN A. KAUFFMAN, OF WASHINGTON, DISTRICT OF COLUMBIA.

BOAT.

1,369,670.

Specification of Letters Patent.

Patented Feb. 22, 1921.

Substitute for application Serial No. 54,068, filed September 23, 1915. This application filed February 20, 1920. Serial No. 360,074.

To all whom it may concern:

Be it known that I, JOHN A. KAUFFMAN, a citizen of the United States, residing at Washington, in the District of Columbia, have invented new and useful Improvements in Boats, of which the following is a specification.

This invention relates to improvements in an attachment for light water craft, such as boats, and has for its primary object to provide the same with out-riggers to prevent the upsetting of the craft.

A further object of the invention is to provide a boat with means whereby a buoyant floating member may be held connected to the sides thereof and offset therefrom to prevent the upsetting or tilting of the boat.

A further object of the invention is to produce floats adjustably connected to the opposite sides of a boat in such a manner that the floats may be positioned close to or a distance from the sides of the boat.

Other objects and advantages will present themselves as the nature of the invention is better understood, reference being had to the accompanying drawings in which there is illustrated a simple and satisfactory embodiment of the improvement reduced to practice.

In the drawings:

Figure 1 is a top plan view of a boat provided with the improvement.

Fig. 2 is an end elevation thereof showing the buoys partially extended.

Fig. 3 is a similar view showing the buoys entirely extended.

Fig. 4 is an enlarged detail view of the arm joint.

Fig. 5 is a similar view of another joint.

Fig. 6 is a top plan view, parts being in section, and illustrating a modification.

Referring now to the drawings in detail, the numeral 1 indicates a boat. To the sides 2 and 3 thereof are arranged buoys or out-riggers 4 and 5. These buoys 4 and 5 are connected to the boat by arms 6 and 7. The arms 6 and 7 consist of members 8, 9 and 10 which are pivotally connected one to the other. The joints 11 and 12 between the said members have their opposing faces serrated as at 13 and 14, while a set screw 15 is employed for retaining the members 9 in fixed alinement or at any desired angle relative to the members 8. The elbow joints 16 and 17 are arranged so that they may be operated

only in an upward direction, while stops 18 and 19 prevent a downward operation after a desired vertical position is reached to allow an upward pivotal movement. Thus it will be seen that when the screws 15 are set with the buoys 4 and 5 extended the arms 6 and 7 being also extended will be held perfectly rigid and the action of the said buoys on the water will prevent the boat from being upset.

In Fig. 6 the construction is substantially similar to that described, but the buoys 20 and 21 are in the nature of air-tight cylinders which will add to the buoyancy thereof and to the buoyancy of the boat. Members 22 connect the arms 6' and 7' at the joints 16' and 17' whereby the buoys 20 and 21 may be moved toward or away from the sides of the boat by a single operator. The members 22 may be either rigid or flexible, as desired.

In the remaining figures of the drawing the boat has on its opposite sides horizontally disposed brackets 23 which are round in plan and which are provided with spaced apertures 24. One arm 25 has its inner rounded head portion 26 disposed over each of the brackets 23. The head portion 26 of the arms 25 is round and provided with spaced apertures 27 as well as with a central aperture 28. This last mentioned aperture aligns with a similar aperture in the bracket 23. Passing through the apertures 28 and the referred to central apertures in the brackets are pivot members 29. The outer ends of the arms 25 are pivotally connected, as at 30, to buoyant out-riggers 31. Preferably connected to the sides of the boat by flexible elements are pins 32 disposed adjacent each of the brackets 23, and these pins are designed to be passed through certain of the registering apertures 24 and 27 in the brackets and in the arms so that the buoys 31 may be swung laterally with respect to the sides of the boat 33 to bring the said buoys close to or a determined distance away from the sides of the boat.

Having thus described the invention, what is claimed as new, is:—

1. In combination with a boat having a buoy arranged at each side thereof, of means securing the buoys to the sides of the boat and permitting an adjustment of the buoys with respect to the sides of the said boat, including arms connected by an elbow joint,

the outer series of said arms being rigidly connected to the respective buoys and the inner series being pivotally connected to the sides of the boat, and means associated with
 5 said pivots for retaining the inner series of arms at a vertical inclination or in longitudinal alinement with the outer series of arms.

2. In combination with a boat having a
 10 buoy to each side thereof; of means for connecting the buoys to the sides of the boat and for permitting an adjustment of the buoys with respect to the said sides of the boat, including sectional arms having elbow
 15 joints connecting the same, and the outer sections of arms being secured to the buoys, brackets on the sides of the boat to which the inner sections of the arms are pivoted, and means between the pivots and the brackets
 20 for permitting and for sustaining the inner arm sections at varying inclinations with respect to the boat.

3. In combination with a boat having a buoy arranged at each side thereof, a pair
 25 of spaced arms connecting each buoy to the boat, means whereby the arms may be arranged angularly with respect to each other and with respect to the boat, means for sustaining the arms in such position, and said
 30 means including contacting elements at the pivotal connection of the arm sections.

4. In combination with a boat having a buoy arranged at each side thereof; of means for connecting the buoys to the sides
 35 of the boat, including a pair of spaced apart arms rigidly connected to the buoys and pivotally connected to the sides of the boat, each of said arms comprising a pair of pivotally connected sections, means between the
 40 inner arm sections and the boat for arranging and for sustaining the said sections angularly with respect to the boat, and means at the pivotal connection of the sectional arms for holding the outer arm sections and the
 45 buoys at predetermined distances from the

sides of the boat when the inner arm sections are swung to the referred to angle position on the boat.

5. In combination with a boat having a buoy at each side thereof; of means for connecting and adjusting the buoys with respect
 50 to the boat, including a pair of spaced arms on each side of the boat between the buoys and boat, each of said arms comprising outer sections which are connected to the
 55 buoys, and inner sections, an elbow joint connecting the arm sections, stop members on the confronting faces at the pivotal connection of the arms, brackets secured to the
 60 sides of the boat having outer serrated faces, the ends of the inner arm sections having inner serrated faces that engage with the serrated faces of the brackets, and binding
 65 means between the said inner arm sections and the brackets.

6. In combination with a boat having a buoy at each side thereof; of means for connecting and adjusting the buoys with respect
 70 to the boat, including a pair of spaced arms on each side of the boat between the buoys and boat, each of said arms comprising outer sections which are connected to the buoys, and inner sections, an elbow joint
 75 connecting the arm sections, stop members on the confronting faces at the pivotal connection of the arms, brackets secured to the sides of the boat having outer serrated faces, the ends of the inner arm sections having
 80 inner serrated faces that engage with the serrated faces of the brackets, and binding means between the said inner arm sections and the brackets, and operating means for adjusting the buoys with respect to the boat
 85 when the last mentioned means has been released, arranged between the pairs of arms and connected with the pivots for the sections thereof.

In testimony whereof I affix my signature.

JOHN A. KAUFFMAN.