A. COLLE.

MARINE VESSEL.

APPLICATION FILED FEB. 27, 1918.

1,275,134.

Patented Aug. 6, 1918.

2 SHEETS—SHEET 1.

Fig. 1.

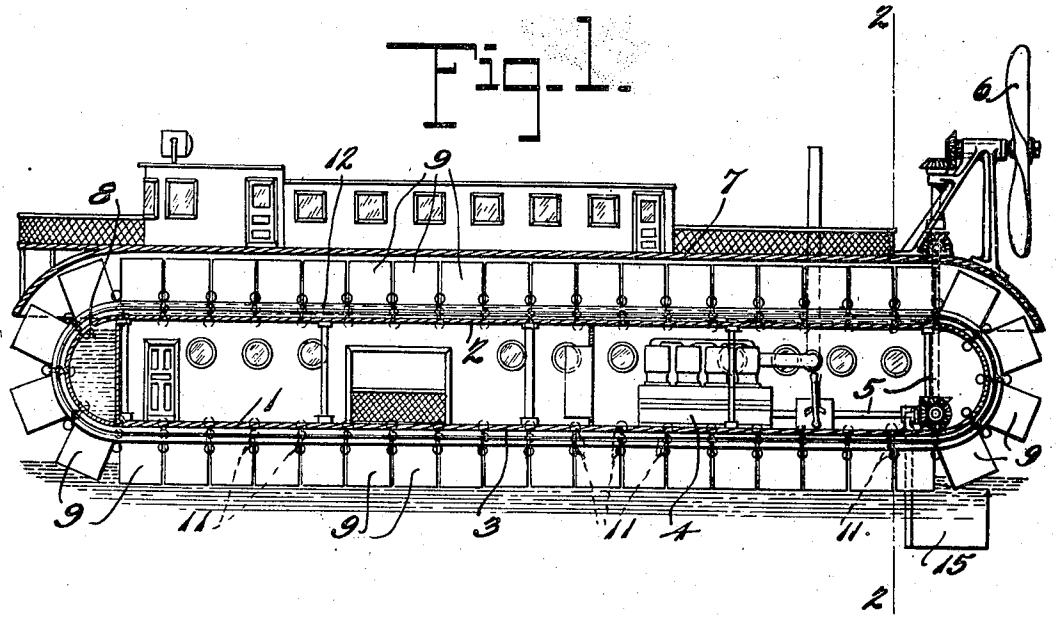
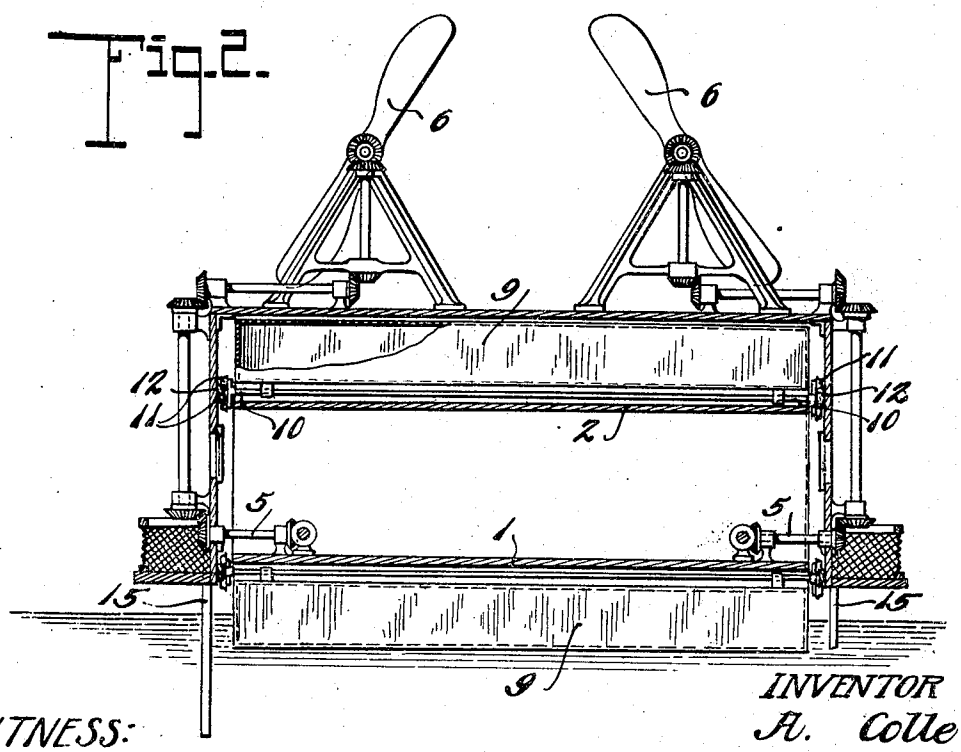


Fig. 2.



WITNESS:
E. H. Wagner.

INVENTOR
A. Colle

BY Robb & Robb
ATTORNEYS

A. COLLE.

MARINE VESSEL.

APPLICATION FILED FEB. 27, 1918.

1,275,134.

Patented Aug. 6, 1918.

2 SHEETS—SHEET 2.

Fig. 3.

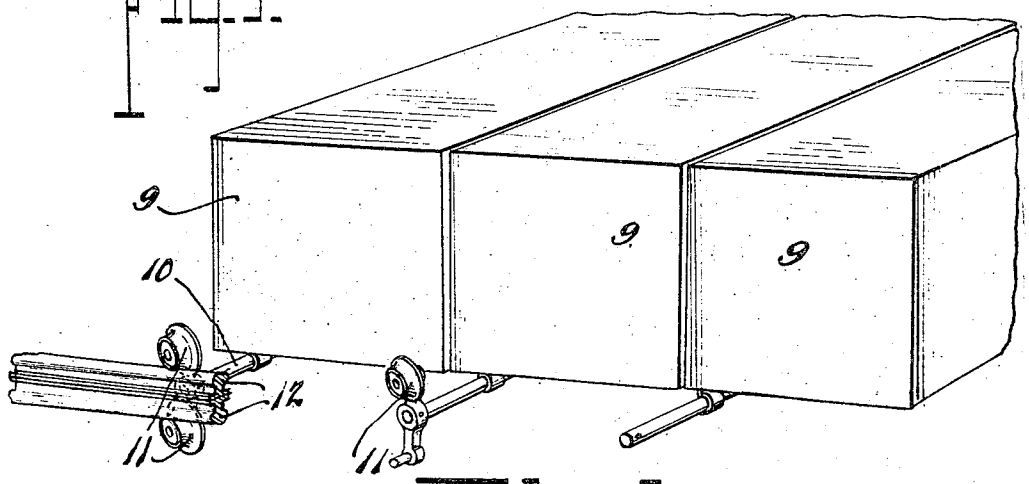


Fig. 4.

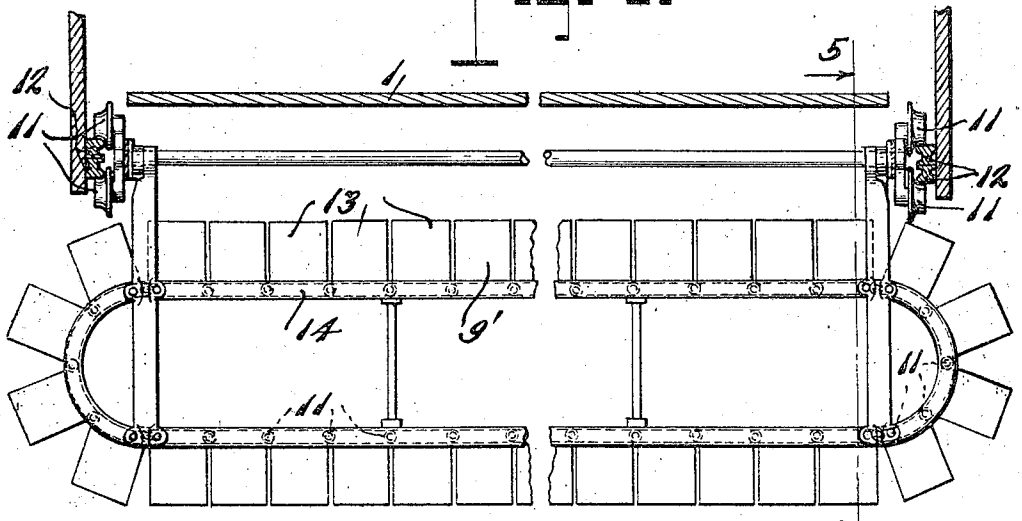
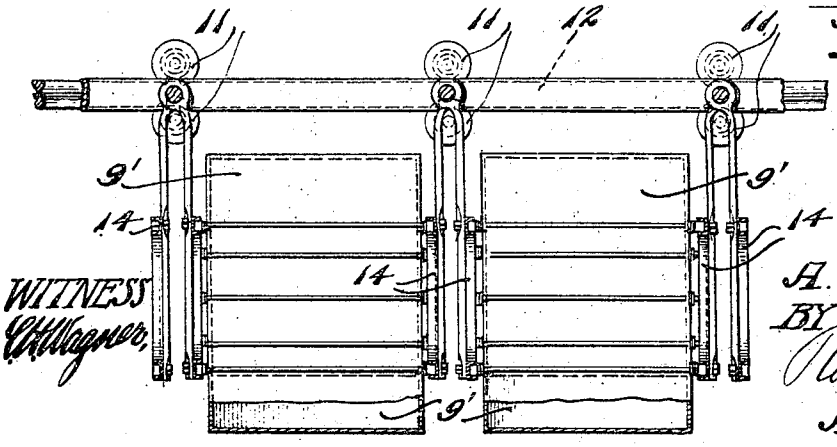


Fig. 5.



WITNESS
Wallagner.

INVENTOR
A. Colle
BY
Robbert Robb
ATTORNEYS

UNITED STATES PATENT OFFICE.

ACHILLES COLLE, OF DOYLESTOWN, PENNSYLVANIA.

MARINE VESSEL.

1,275,134. Specification of Letters Patent. Patented Aug. 6, 1918.

Application filed February 27, 1918. Serial No. 219,424.

To all whom it may concern:

Be it known that I, ACHILLES COLLE, a citizen of Belgium, residing at Doylestown, in the county of Bucks and State of Pennsylvania, have invented certain new and useful Improvements in Marine Vessels, of which the following is a specification.

The present invention relates to improvements in ship construction of that type in which the body of the vessel is carried by an endless float support, and it has for its object to provide such a construction as will serve to increase the speed with which the boat may be moved through, or more strictly speaking, upon the surface of the water.

I am aware of the fact that it has been heretofore proposed to construct a ship answering broadly to the above idea but such propositions have embodied power instrumentalities for driving the endless float support, whereas in contra-distinction it is comprehended by my invention to provide a float support so mounted as to be freely movable under the action of the resistance offered by the water incident to the propulsion of the boat by means entirely independent of said float device.

For a full understanding of the present invention, reference is to be had to the following description and the accompanying drawings, in which:

Figure 1 is a vertical section through a vessel embodying my invention;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1;

Fig. 3 is an enlarged perspective view of a portion of the float support showing in conjunction therewith a portion of the channel rail upon which it is mounted;

Fig. 4 is a sectional view of a modified form of the endless float support, showing one of the float elements in elevation; and

Fig. 5 is a vertical section on the line 5—5 of Fig. 4.

Throughout the following detail description, and on the several figures of the drawing, similar parts are referred to by like reference characters.

Referring to the general embodiment of the idea disclosed in Figs. 1 to 3, the vessel consists of a suitable form of body embodying a lower deck 1 and an upper deck 2 about which is suitably mounted the longitudinally extending float support 3. It is preferred in the larger ship constructions that the space between the upper and lower decks 1 and 2 will be sufficient to afford cargo space and accommodate the power mechanism which in this instance consists of the power plant 4 with driving shafts 5 extending to air propellers 6 mounted upon the top deck 7 extending over and covering the upper portion of the endless float support 3 above referred to. It is to be understood that any kind of propulsion means may be employed and I therefore do not wish to be confined to the air propulsion mechanism herein disclosed.

Where a marine engine of the internal combustion type is employed, a fuel tank is suitably disposed at one end of the compartment between decks 1 and 2 as indicated at 8. As a matter of fact, the general idea of this invention is applicable to a boat of small size in which no propulsion means is employed other than that afforded by manual manipulation, as will be obvious to any one skilled in the art to which the invention appertains.

The float support, as shown in Fig. 3 consists of a series of closed float members or receptacles 9 containing a medium affording suitable buoyancy and said elements are connected together by the pivot rod connections indicated at 10. On each end of the rod elements are mounted wheels 11 having suitable roller bearings to decrease friction to the minimum, said wheels being movable upon the double tracks or ways 12. This form of support is particularly useful in that it prevents displacement of the endless member from its supporting way, as will be obvious.

The endless member thus described is entirely free to move in a longitudinal direction upon its track way as the resistance of the water tends to shift the same when the boat is moved in either direction of its travel. Thus the usual skin friction which is present in vessels of the conventional type is eliminated and substantially all the resistance which is present in this construction is that which arises from the movement of the weight upon the track way, obviously a minimum amount due to the frictionless bearing support which it provides. The boat is preferably provided with a rudder 15 at each side of the boat for suitably controlling its direction of travel.

Passing now to the modified form of this device which is shown in Figs. 4 and 5, the

endless support consists of a series of float elements 9′ connected together after the manner indicated in Fig. 3 so as to provide an endless member which extends longitudinally of the boat and supported by the channel type of track way, but each of said float elements in itself consists of an endless float construction. Thus each float element 9′ embodies a series of small float compartments or elements 13 connected together and mounted upon a track way 14 so that the endless member is free to move transversely of the boat.

From this description it will appear that in this type of endless support we have a general movability of the complete endless float member longitudinally of the boat as well as a transverse movability of each of the float elements which form the constituent part of the main float support. This type of construction is particularly advantageous in turning movements of the vessel because any pressure of the water in a direction transversely of the float support affects the individual float members and reduces resistance offered in such transverse directions.

It will be apparent that changes may be made in the details of construction of the elemental parts of the float device above described without departing from the spirit of the invention and within the scope of the appended claims.

Having thus described my invention, what I claim as new is:—

1. In a boat construction, the combination of a body, an endless float support extending about said body and freely movable under the action of the water incident to propulsion of the boat, and propulsion means for the boat independent of the endless float support.

2. In a boat construction, the combination of a body and an endless float support for the same arranged for movement longitudinally of the boat, said endless float support comprising a series of buoyant members mounted for movement other than the longitudinal movement of the support.

3. In a boat construction, the combination of a body, an endless float support comprising a series of float elements movable longitudinally and transversely of the boat.

4. In a boat construction, the combination of a body, an endless float support comprising a series of float elements, each element in turn comprising an endless float device.

5. In a boat construction, the combination of a body, an endless float support comprising a series of float elements, each element in turn comprising an endless float device movable transversely of the movement of the endless support.

In testimony whereof I affix my signature.

ACHILLES COLLE.