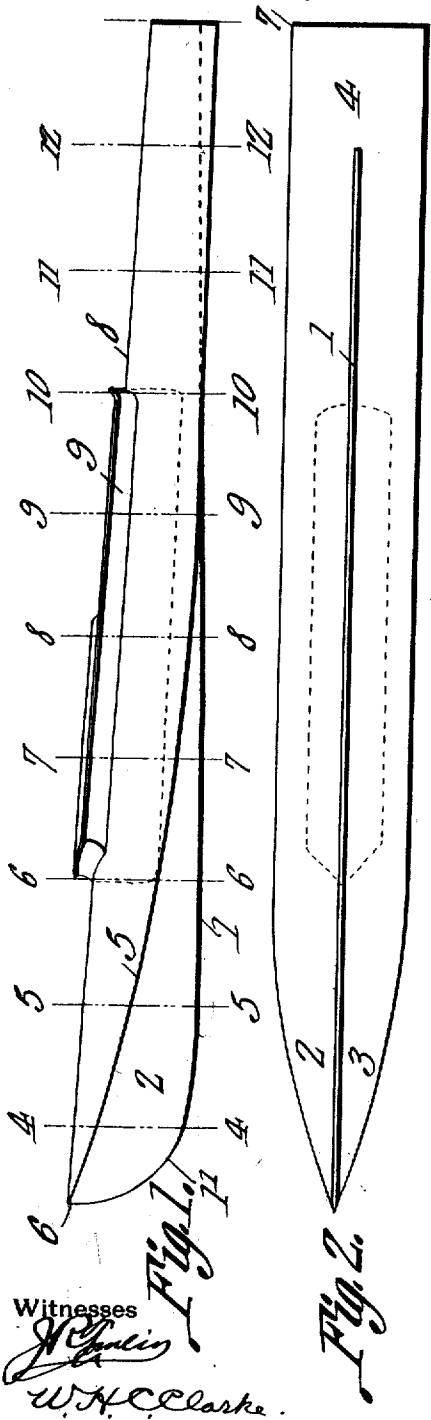


W. F. HUNTER.
MOTOR BOAT.

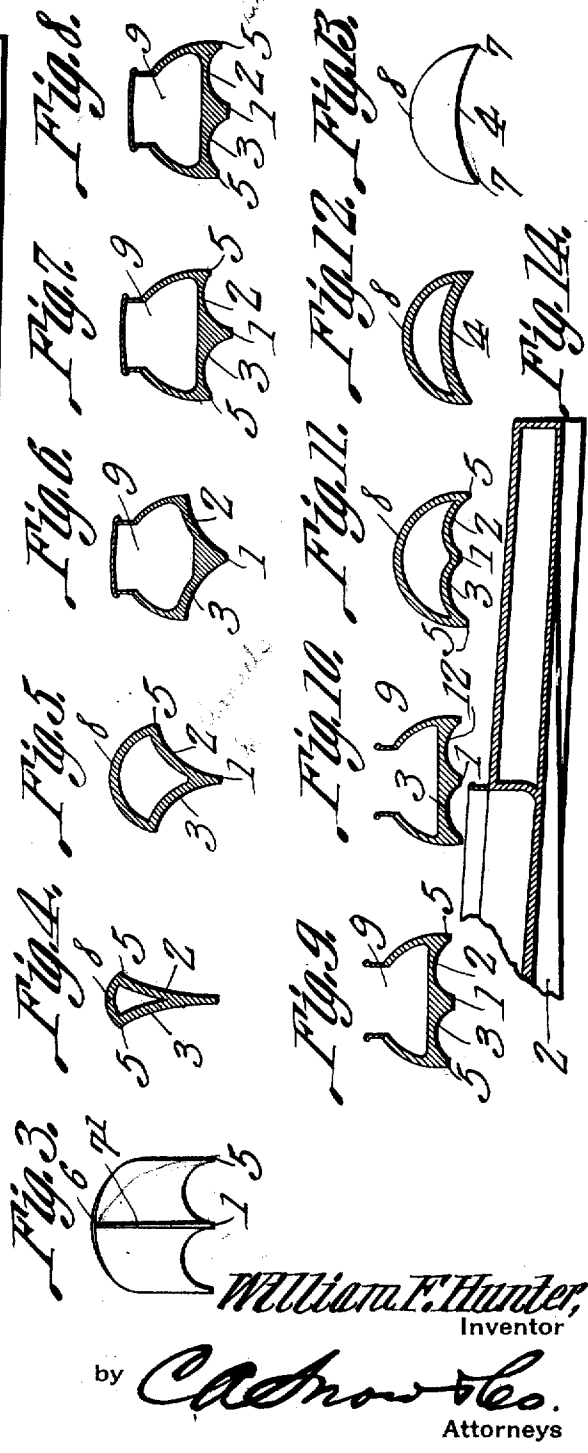
APPLICATION FILED DEC. 17, 1910.

1,010,053.

Patented Nov. 28, 1911.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM F. HUNTER, OF ARCATA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO HENRY F. BRIZARD, OF ARCATA, CALIFORNIA.

MOTOR-BOAT.

1,010,053.

Specification of Letters Patent.

Patented Nov. 28, 1911.

Application filed December 17, 1910. Serial No. 597,853.

To all whom it may concern:

Be it known that I, WILLIAM F. HUNTER, a citizen of the United States, residing at Arcata, in the county of Humboldt and State of California, have invented a new and useful Motor-Boat, of which the following is a specification.

This invention relates to speed boat hulls.

The object of the invention is to reduce to a minimum the friction incident to the passage of a boat hull through the water.

A further object of the invention is to provide a boat hull which will present concave surfaces to the water from stem to stern.

A further object of the invention is to provide a boat hull having a pair of concave bow channels which merge into a single channel as they near the after parts of the boat.

A further object of the invention is to provide a boat with a cutting bow and a skimming stern, the bow preferably being of a double concave or approximately wedge shaped construction and the stern being of a single concave construction.

A further object of the invention is to provide a boat hull which will conform to the wave formation produced by the passage of the boat through the water.

A further object of the invention is to provide a boat hull the side lines of which will be carried from the highest point at the bow to the lowest point at the stern.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the form of boat hull illustrated in the accompanying drawing, and described and defined in the following specification and claims, it being understood that changes in the single embodiment of invention herein disclosed can be made within the scope of the claims without departing from the spirit of the invention.

In the accompanying drawing forming a part of this specification, Figure 1 is a side elevation of a boat hull constructed in accordance with the invention, showing the side lines extending from the high point at the bow to the low point at the stern with a turtle deck interposed between the two side lines. Fig. 2 is an under plan view of the boat hull, showing the keel which separates the double concave channels at the bow

of the boat and merges into a single concave channel at the stern. Fig. 3 is a front elevation of the boat hull. Figs. 4, 5, 6, 7, 8, 9, 10, 11 and 12 are cross sections on the lines 4-4, 5-5, 6-6, 7-7, 8-8, 9-9, 10-10, 11-11 and 12-12 respectively of Fig. 1. Fig. 13 is a stern elevation of the improved boat hull. Fig. 14 is a fragmentary side elevation, partly broken away, taken at a point adjacent the stern of the boat.

Like reference numerals indicate corresponding parts in the different figures of the drawing.

The boat hull of the present invention may be constructed of any suitable and desired material and the dimensions may be varied at will.

The reference numeral 1 indicates the keel of the boat which preferably is curved upward at the bow as indicated at 1'. On opposite sides of the keel 1, the bow of the boat preferably is formed with two longitudinally extending channels 2 and 3 which are concave in cross section. The concave channels 2 and 3, as they extend toward the stern of the boat, are gradually carried in a spiral direction as indicated in Figs. 4, 5, 6, 7, 8, and 9 of the drawing. The keel 1, continues to separate the two concave channels 2 and 3 until the stern portion of the boat is reached, when the keel and the two channels 2 and 3 gradually merge into a single channel 4 which is concave in cross section as indicated in Figs. 12 and 13. The side line 5 at each side of the boat, which forms the upper line of the adjacent concave channels, is carried from the point 6 at the high portion of the bow to the point 7 at the low portion of the stern. That is to say the lines extend in an approximately spiral direction from the point of the bow to the heel of the stern. The deck of the boat preferably, although not essentially, is of turtle back form and the central longitudinal line 8 thereof is approximately straight from stem to stern, the turtle deck being broken amidship by the cockpit 9 in which the operating machinery is located if desired. The location and arrangement of the engine, however, forms no part of the present invention.

It will be noted that the boat hull of the present invention presents concave surfaces to the water from bow to stern, two concave surfaces being presented adjacent the for-

ward portion of the boat and a single concave surface adjacent the aft portion thereof. Instead of forcing the water outward, as is the case with the usual forms of boat hulls which present convex surfaces to the water, the design of the present invention causes the water to be held in in such manner that it passes out the stern and does not form a wave at the side of the boat as is usually the case. When the boat is running at high speed, the concave surfaces adjacent the forward portion thereof cause the hull to rise to the surface of the water and the concave portion adjacent the stern prevents the boat from squatting.

The bottom of the boat of the present invention conforms approximately in shape to the water displacement wave, and consequently friction on the bottom of the boat is reduced to a minimum.

The keel 1 at the bow of the boat serves to cut the water, and the concave channels 2 and 3 serve to prevent it from being thrown outward beyond the sides of the boat. These channels 2 and 3 on the contrary serve to merge the water into an approximately convex supporting surface for the stern portion of the boat. The improved boat therefore cuts and rises at the bow and skims at the stern.

What is claimed is:

1. A boat hull having a double concave cutting bow merging into a concave skimmer stern, said boat having side lines running rearwardly and downwardly from the upper part of the bow to the heel of the stern.

2. A boat hull having a double concave bow merging into a concave stern, the high side lines of the concave bow extending rearwardly and downwardly to the heel of the stern, said boat having a turtle-back deck extending from the side line on one side of the boat to the side line on the other side thereof.

3. A boat hull having a pair of oppositely facing channels, concaved in cross section, adjacent the bow portion thereof, said channels being separated from each other adjacent their longitudinal edges by the keel of the boat, the side lines of the boat defining the upper longitudinal edges of said channels, said channels being spirally extended downward toward the rear of the boat, said keel and said double concave channels merging into a single downwardly facing water engaging concave channel adjacent the rear of the boat, the side lines of the boat extending downward from the high portion at the bow of the boat to the lowest portion at the stern of the boat.

4. A boat hull having a pair of oppositely facing channels, concaved in cross section, adjacent the bow portion thereof, said channels being separated from each other adjacent their lower longitudinal edges by the keel of the boat, the side lines of the boat defining the upper longitudinal edges of said channels, said channels being spirally extended toward the rear of the boat, said keel and said double concave channels merging into a single downwardly facing water engaging concave channel adjacent the rear of the boat, the side lines extending downward from the high portion at the bow of the boat to the lowest portion at the stern of the boat and crossing the line of the keel at a point intermediate the bow and stern of the boat, said boat having a turtle deck, the side lines serving as cut waters from a point adjacent the midship portion of the boat backward to the stern.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. HUNTER.

Witnesses:

S. R. WHITE,
J. C. HAMPTON.