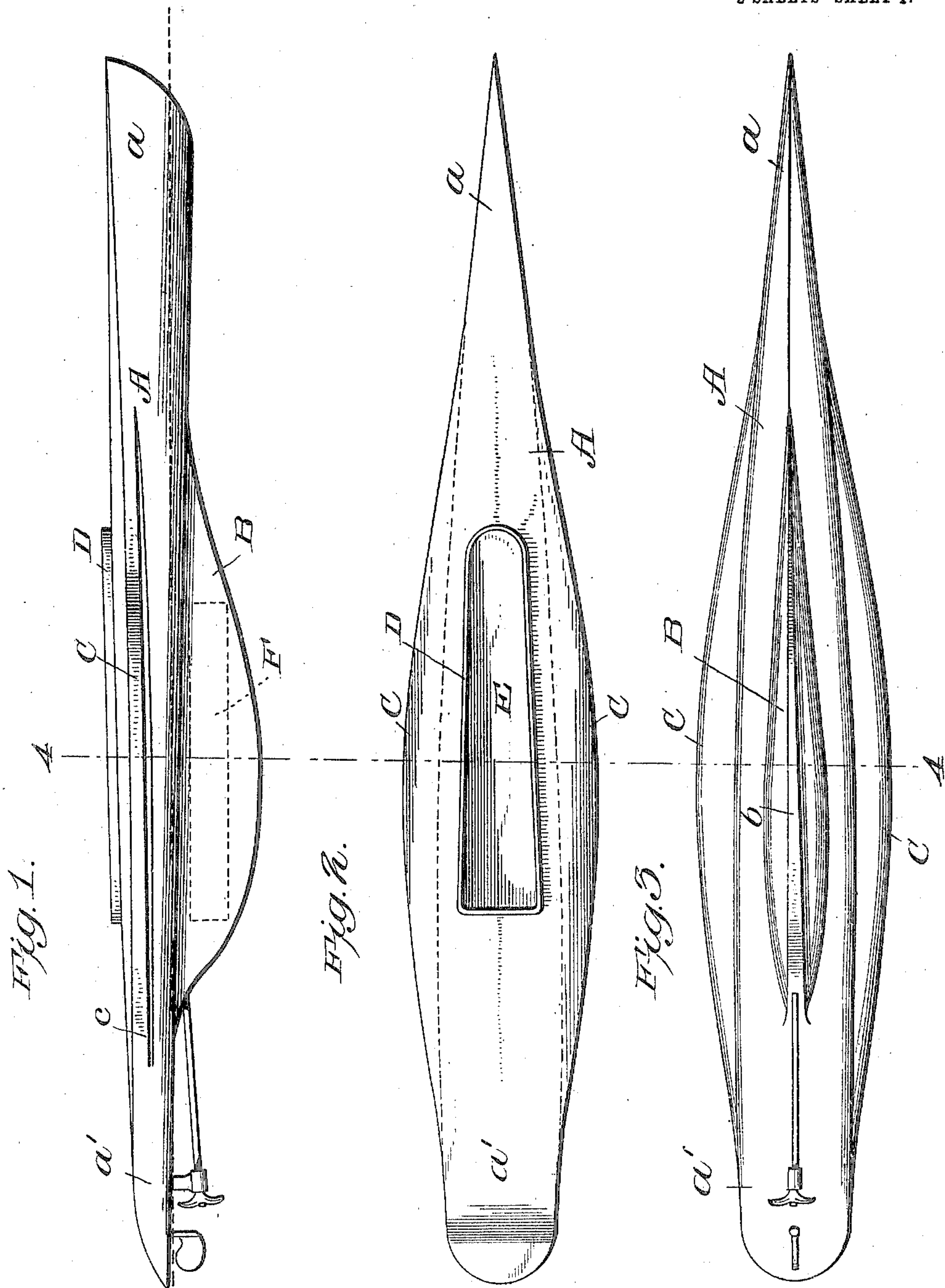


No. 811,887.

PATENTED FEB. 6, 1906.

T. H. WHELESS.
HIGH SPEED MOTOR BOAT.
APPLICATION FILED JAN. 5, 1905.

2 SHEETS—SHEET 1.



Witnesses
Geo. F. Payne.
Mr. Max. Darvall.

Inventor
T. H. Wheless,
by Milliman & Fisher,
Attorney S.

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2 SHEETS—SHEET 2.

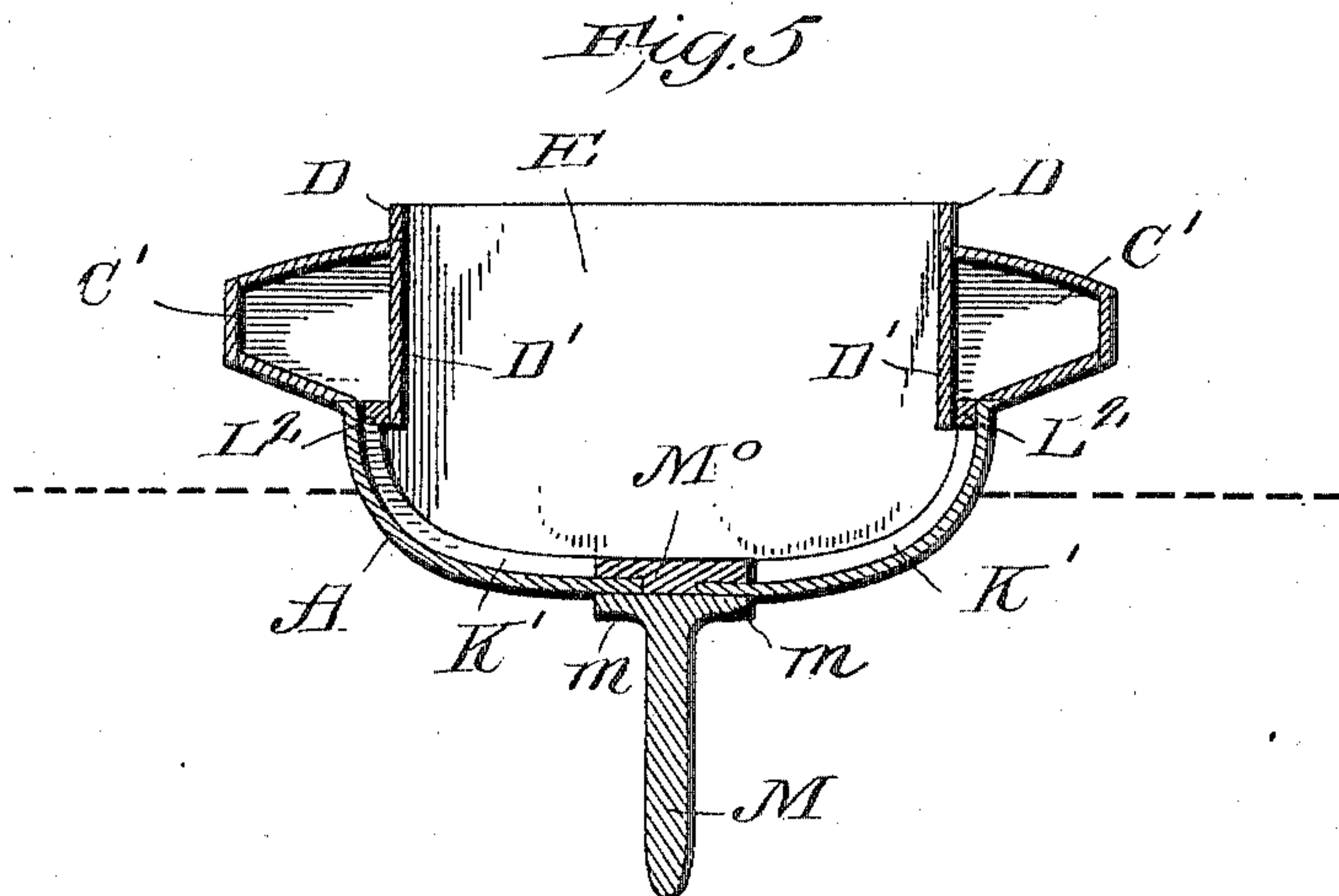


Fig. 7.

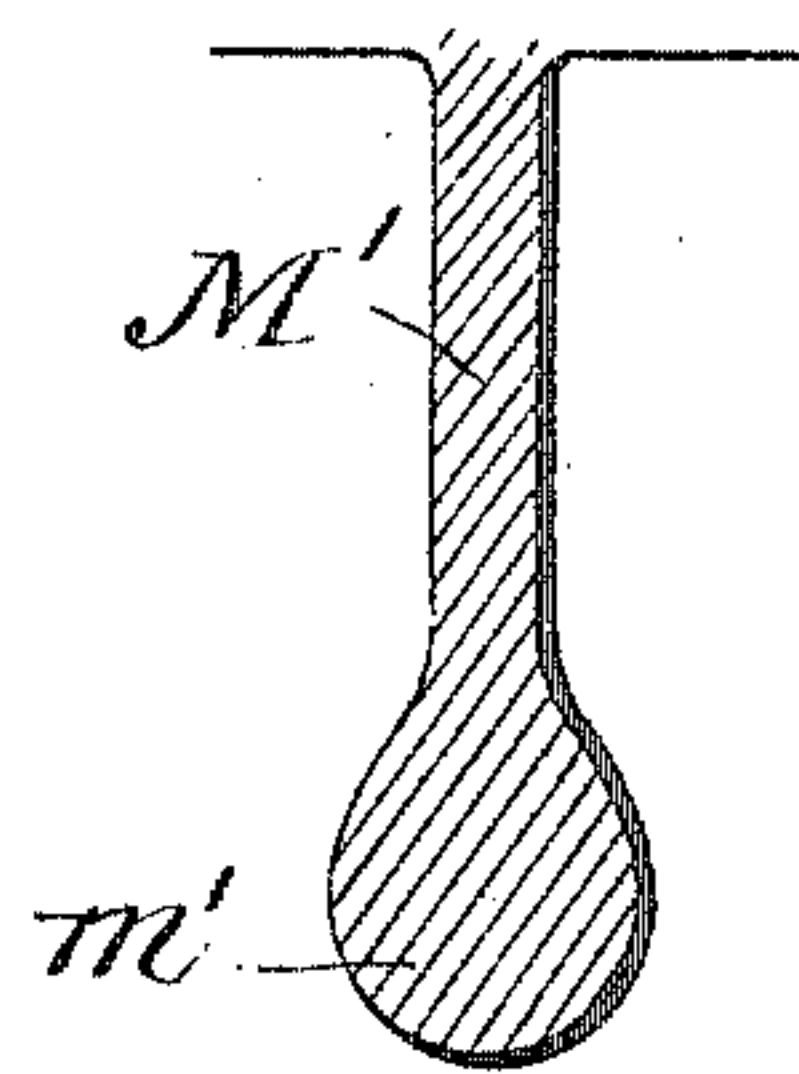


Fig. 6.

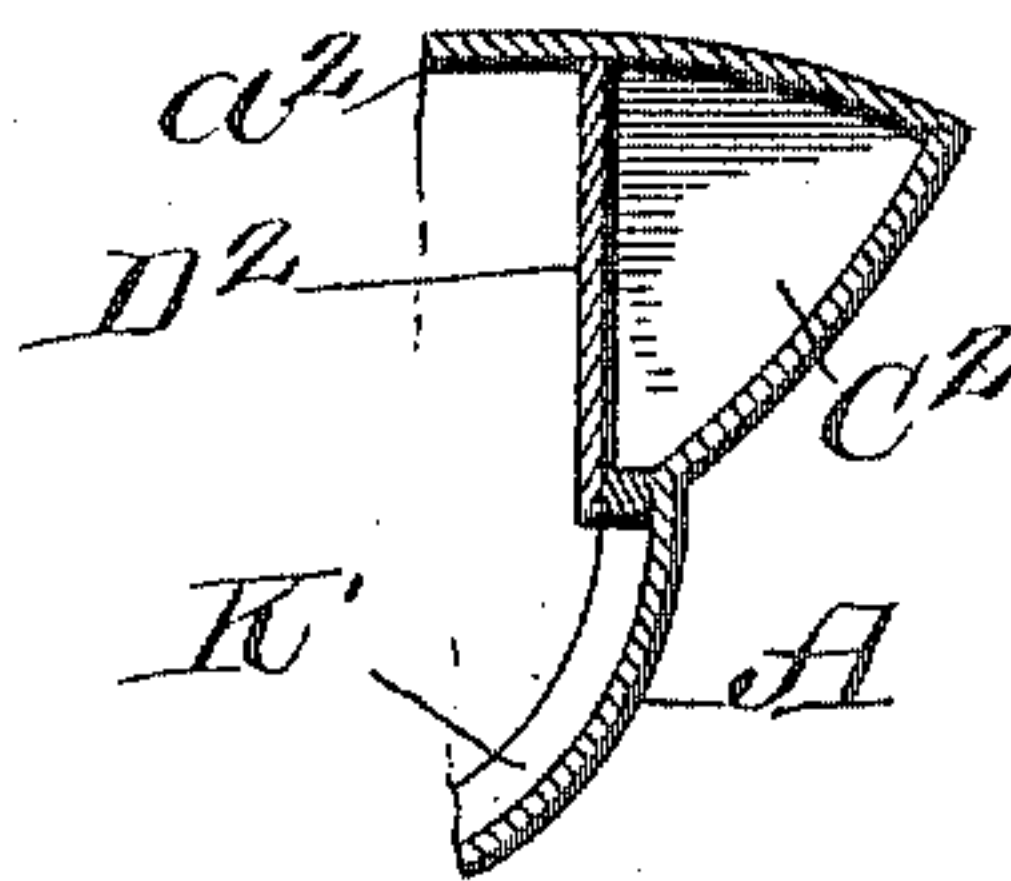


Fig. 8.

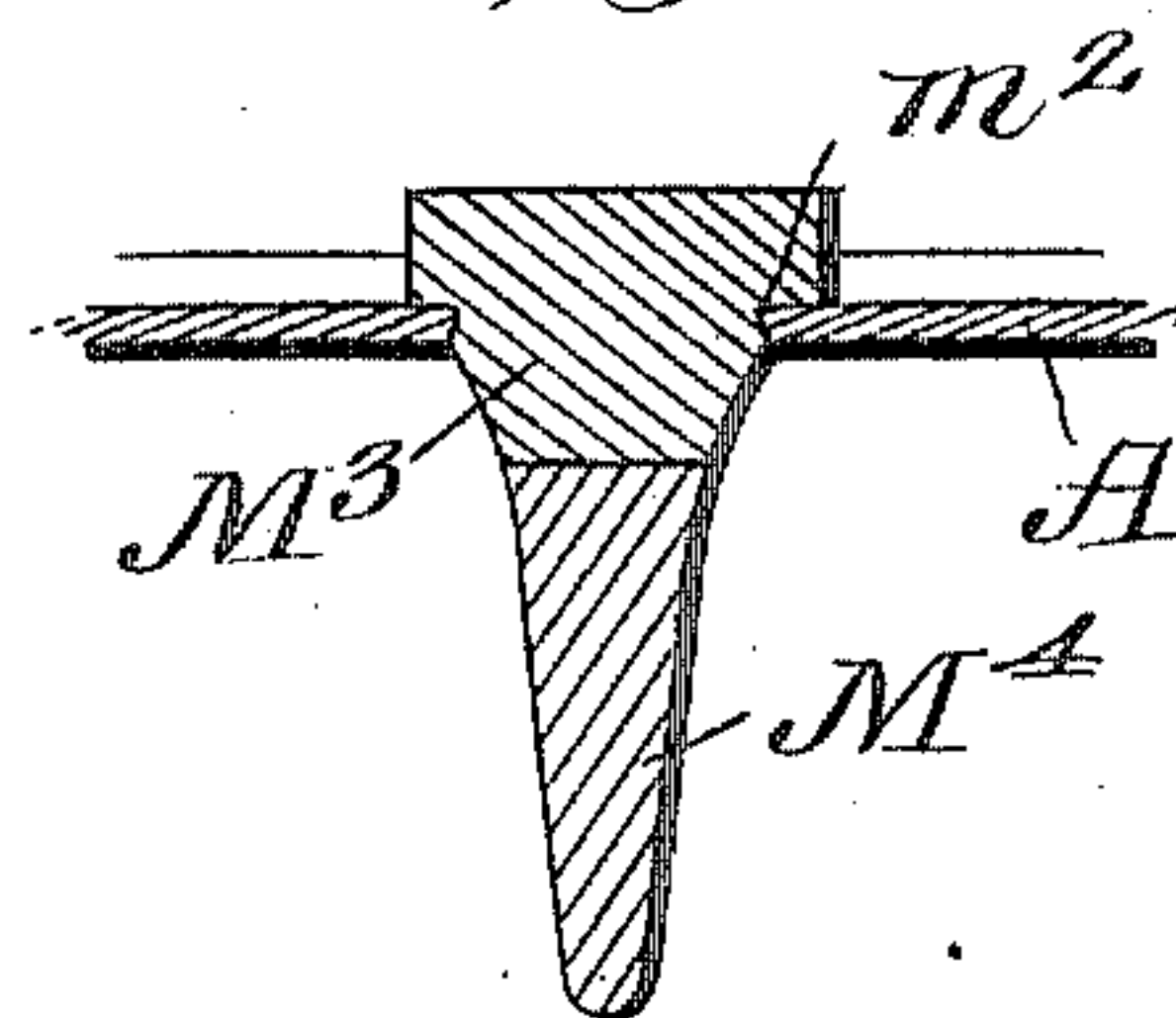
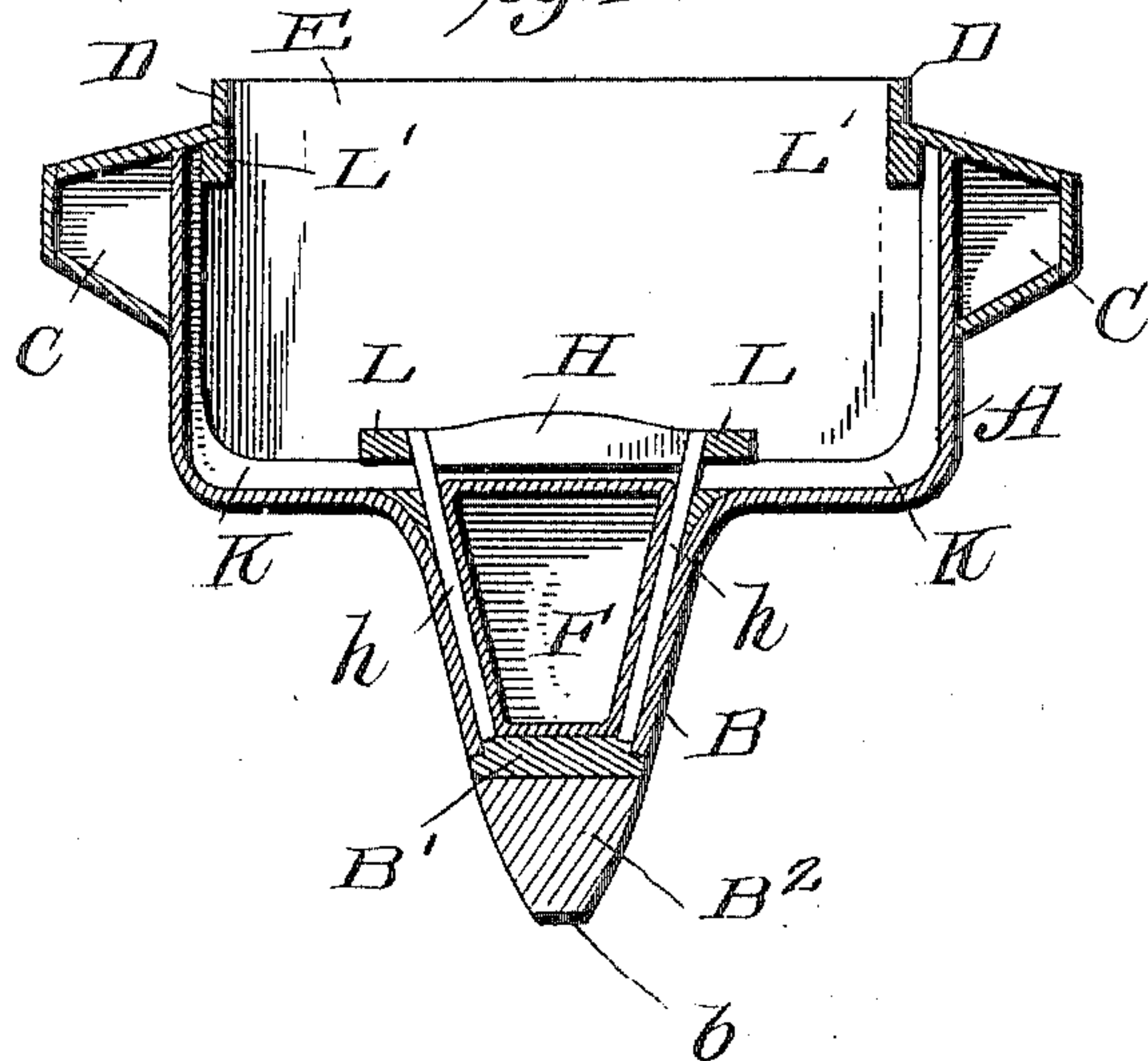


Fig. 4.



Witnesses
Geo. H. Pryor.
W. Max. Duvall.

Inventor
T. H. Wheless,
by (McKinism + Fisher)
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS HENRY WHELESS, OF NEW YORK, N. Y.

HIGH-SPEED MOTOR-BOAT.

No. 811,887.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed January 5, 1905. Serial No. 239,785.

To all whom it may concern:

Be it known that I, THOMAS HENRY WHELESS, 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 High-Speed Motor-Boats; and I do hereby 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.

My invention relates to improvements in the construction of vessels; and it applies more especially to the construction of small high-powered vessels of fine lines intended to make long runs at high speed and to be seaworthy in heavy seas.

My invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 represents a side elevation of one form of boat constructed according to my invention. Fig. 2 is a plan view of the boat shown in Fig. 1, and Fig. 3 is an inverted plan view of the boat shown in Figs. 1 and 2. Fig. 4 shows a cross-section through the boat along the lines 4 4 of Figs. 1 to 3. Fig. 5 shows a cross-section generally similar to Fig. 4 of a boat constructed somewhat similar to that shown in Figs. 1 to 3 and illustrates another embodiment of my invention. Fig. 6 shows a modified form of buoyancy-chamber at the side of the boat. Fig. 7 shows a cross-section of a modified form of keel for use in a boat constructed according to my invention, and Fig. 8 shows another modified form of keel.

Referring now to Figs. 1 to 4, A represents the hull or main body of the boat, which is preferably deeper in the bow, as at *a*, than in the stern, as at *a'*, not only to better ride the waves, but also so that the tendency of a boat to squat when going at high speed in rough water will bring the boat to a substantially even keel at this speed. B represents a large hollow keel for carrying fuel-tanks, a cross-section of which is shown in Fig. 4. The hollow portion of this keel carries a bottom plate B', to which the keel-weight B² is secured, which is preferably flat at its base, as at *b*. (See Fig. 4.) C C represent buoyancy-chambers arranged one at each side of the boat slightly above the water-line, which buoyancy-chambers tend to prevent the boat

from heeling over too far and also tend to prevent the boat from rolling too much. These buoyancy-chambers preferably disappear at the hull and deck line, both fore and aft, and preferably taper downward from forward aft, so that when the boat is going at very high speed and the stern squats these buoyancy-chambers will tend to wedge the stern of the boat upward against the squatting tendency, and thus will assist in keeping the boat on a substantially even keel when running at high speed. Obviously these buoyancy-chambers may be constructed so as to be parallel with the boat's water-line when running at high speed or so as to conform to any convenient deck-line of a boat—as, for instance, a whaleback deck—without departing from the spirit of my invention. D represents a hatch-coaming surrounding the engine-room E, which hatch-coaming projects slightly above the deck of the boat and which may be closed over by a hatch-hood (not shown) or in any other convenient way.

The engines of the boat and the steering mechanism are not shown, as my present invention relates merely to the construction of the vessel itself and not to its motive power.

This invention more particularly refers to the exterior contour of the boat than to the internal arrangements thereof; but Figs. 4 to 8 show details of parts that may be embodied in my invention. Referring especially to Fig. 4, the hollow keel B is provided with oil or fuel tanks F, one or more of which in case of necessity may be filled with water as the oil is exhausted to serve as ballast-tanks. The oil may be fed to the engines by pneumatic pressure, as is well known in the art; but these details are not a part of my present invention and will not be further described. At each side of the oil or fuel tanks F are ribs *h*, spanned by stiffeners H, which are mounted between the longitudinal beams L, secured above the ribs of the boat K. Longitudinal beams L' are also provided to stiffen the upper structure of the boat.

In the form of device shown in Fig. 5 longitudinal beams L² are mounted at the base of the buoyancy-chambers C', and the hatch-coaming D is continued downward, as at D'. The ribs K' connect the longitudinal beams L² and the inner false keel M⁰, and a deep fin-keel M is mounted below this false keel, which tends to increase the stability of the boat and diminish rolling. This keel when made of

metal is preferably provided with flanges m for convenience in securing the same to the bottom of the boat.

In the form of device shown in Fig. 6 the buoyancy-chambers C^2 present a broad bearing-surface on the water when the boat is heeled over, and they are closed on their inner side by the partition D^2 . The top of the buoyancy-chamber forms a continuation of the deck a^2 .

In Fig. 7 a keel M' is shown having a weighted bulb m' , which may be used in place of the keel M in Fig. 5.

In Fig. 8 the keel M^3 is secured in the boat, as at m^2 , and carries a metal fin extension M^4 , which also serves to ballast the boat, as well as to diminish rolling.

The various forms of keel preferably taper upward fore and aft, as shown in Fig. 1, and the various forms of buoyancy-chambers preferably vanish toward the bow and stern, as shown in Figs. 2 and 3, and preferably incline downward toward the stern, as shown in Fig. 1.

The herein-described construction of vessel provides a boat of extremely fine lines below the water, with great stability, owing to the concentration of weights in the extreme lower portion of the boat, and with buoyancy-chambers which are water-borne when the boat heels over and tend to wedge the boat back to the normal upright position and also to prevent the boat from rolling over too far. The wedging effect of these buoyancy-chambers to restore the boat to the upright position will be very great when the boat is going at high speed in high seas, for which condition these boats are especially designed.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A high-speed motor-boat having fine lines below the water-line, with the bow deeper than the stern, and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward, and being provided with a weighted keel, substantially as described.

2. A high-speed motor-boat having fine lines below the water-line, with the bow deeper than the stern, and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward, and being provided with a hollow keel weighted at its base and opening upward into the boat, substantially as described.

3. A high-speed motor-boat, provided with fine lines below the water-line, with the bow deeper than the stern, buoyancy-chambers arranged above the water-line and at each side of the boat, and a deep weighted keel tapering upward from the center toward the bow and stern, substantially as described.

4. A high-speed motor-boat, provided with

fine lines below the water-line, with the bow deeper than the stern, buoyancy-chambers arranged above the water-line and at each side of the boat, and a deep hollow weighted keel tapering upward from the center toward the bow and stern, substantially as described.

5. A high-speed motor-boat having fine lines below the water-line and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward and also being inclined downward from the bow aft, and being provided with a weighted keel, substantially as described.

6. A high-speed motor-boat having fine lines below the water-line and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward and also being inclined downward from the bow aft, and being provided with a hollow keel weighted at its base and opening upward into the boat, substantially as described.

7. A high-speed motor-boat having fine lines below the water-line, with the bow deeper than the stern, and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward and also being inclined downward from the bow aft, and being provided with a weighted keel, substantially as described.

8. A high-speed motor-boat having fine lines below the water-line, with the bow deeper than the stern, and having buoyancy-chambers provided at each side above the water-line and tapering upward and outward and also being inclined downward from the bow aft, and being provided with a hollow keel weighted at its base and opening upward into the boat, substantially as described.

9. A high-speed motor-boat, provided with fine lines below the water-line, with the bow deeper than the stern, buoyancy-chambers arranged above the water-line and at each side of the boat, and tapering from the center toward each end of the boat, and a deep weighted keel tapering upward from the center toward the bow and stern, substantially as described.

10. A high-speed motor-boat, provided with fine lines below the water-line, with the bow deeper than the stern, buoyancy-chambers arranged above the water-line and at each side of the boat, and tapering from the center toward each end of the boat, and a deep hollow weighted keel tapering upward from the center toward the bow and stern, substantially as described.

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

THOMAS HENRY WHELESS.

Witnesses:

GEORGE W. CRIST,
IRVING LIPPMAN.