(No Model.)

W. H. DANIELS.

CONSTRUCTION OF SHIPS, &c.

No. 376,517. Patented Jan. 17, 1888.

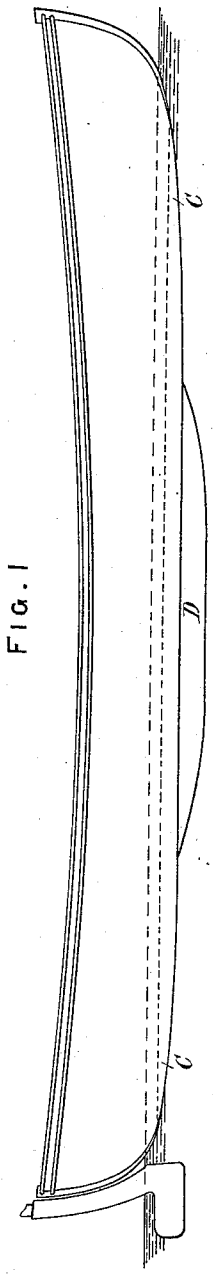


FIG. 1

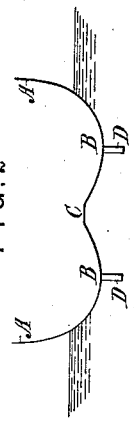


FIG. 2

Witnesses:
C. Mllerle
Julius Solger

Inventor:
Wm. H. Daniels
By his Attorney.
O. E. Duffy

N. PETERS, Photo-Lithographer, Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM HENRY DANIELS, OF SOUTHSEA, ENGLAND.

CONSTRUCTION OF SHIPS, &c.

SPECIFICATION forming part of Letters Patent No. 376,517, dated January 17, 1888.

Application filed November 12, 1886. Serial No. 218,603. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY DANIELS, a subject of the Queen of Great Britain, residing at Southsea, England, have invented new and useful Improvements in the Construction of Boats, Ships, and the Like, of which the following is a specification.

This invention consists in making the hulls of vessels, boats, and the like of such a shape that the two halves of the bottom, after curving downward from the sides, shall curve upward and inward, meeting in the middle of the hull, while at or about the lowest part of each of the curved halves a short keel or center-board is fixed. By this inward curving of the two parts of the bottom much greater buoyancy and steadiness may be obtained than is possible with the usual construction, while any tendency to drifting is obviated by the keels.

In the accompanying drawings, Figure 1 is a side elevation of a boat constructed according to this invention. Fig. 2 is a midship's cross-section.

Referring to Fig. 2 it will be seen that the sides A come down in the usual manner to about what may be termed the "center" B of each half, when they begin to rise, curving inward and upward until they finally meet at C, the middle of the hull.

The keels or center-boards (the former are preferred on account of the latter taking up space in the interior of the boat) D are provided for the purpose of preventing the drifting which a boat without any keel is liable to. These keels are short, being in length about one-third of the length of the vessel, and they are tapered to a point, as shown, at each end. This form of keel greatly improves the steering qualities of the vessel.

The portion C is by preference, for facility of construction, made flat and horizontal from end to end, as shown in dotted lines in Fig. 1. It forms the backbone of the ship or boat, and the two halves or bilges of the boat or ship rise and converge toward its ends, finally merging in them at the bow and the stern, which are finished in the usual manner.

Experience has demonstrated that my inverted-V-shaped bottom to the hull of a vessel is a vast improvement over the forms heretofore in use. It has also been demonstrated that a center-board secured to each leg of the inverted-V-shaped bottom gives a more steady stand against the side movement of the vessel than has ever before to my knowledge been accomplished, and the vessel stands to her rudder with unusual steadiness. I therefore obtain a new and improved result by combining the inverted-V-shaped bottom with center-boards, as shown.

It should be understood that although the expression "inverted-V shape" has been used for convenience throughout the specification and claim, yet I do not wish to confine myself to a strict construction of that term, as it is evident that the form of the bottom of the hull in cross-section should be substantially that shown in Fig. 2 of the drawings, and not inverted-V shape in the strictest sense of the term.

My present invention is an improvement on Patent No. 352,807, granted to me November 16, 1886. I therefore do not claim, broadly, the inverted-V shaped bottom.

I am also aware that double center-boards have been used, as shown in Patent No. 214,101, it being a flat-bottom boat, and therefore I do not claim a double center-board; but

What I do claim is—

A hull for vessels, having its bottom centrally provided with an external V-shaped channel-trough which extends longitudinally through the bottom, and is formed by said bottom curving from each side upward and inward toward the middle thereof, the channel, or portion of the body between the upwardly and inwardly curved portions, constituting the backbone of the vessel, the two bilges gradually rising and merging themselves therein at the stem and stern post, in combination with keels or center-boards extending downward from the lowest part of the two bilges and longitudinally tapering toward each end of the vessel from the lowest or central part of said bilges, substantially as described.

In testimony whereof I have hereto set my hand in the presence of two subscribing witnesses.

WILLIAM HENRY DANIELS.

Witnesses:

OLIVER COLLINS,
Natl. Provl. Bank of England, Limd., Southsea.

J. M. GURNEY,
Natl. Provl. Bank of England, Limited, Southsea.