

No. 688,672.

Patented Dec. 10, 1901.

W. NIEMEYER.
MARINE VESSEL.

(Application filed May 17, 1901.)

(No Model.)

Fig. 1.

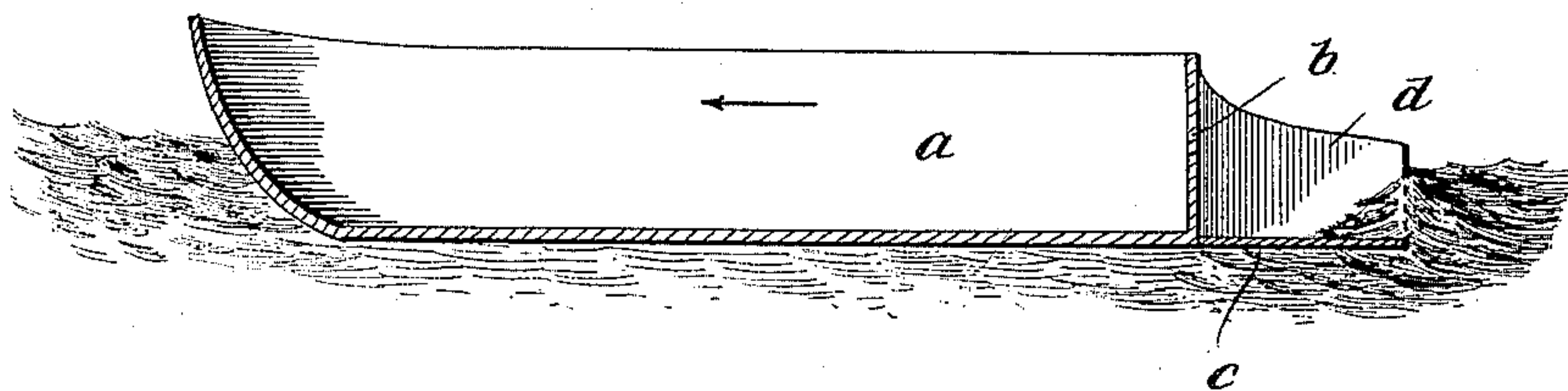


Fig. 2.

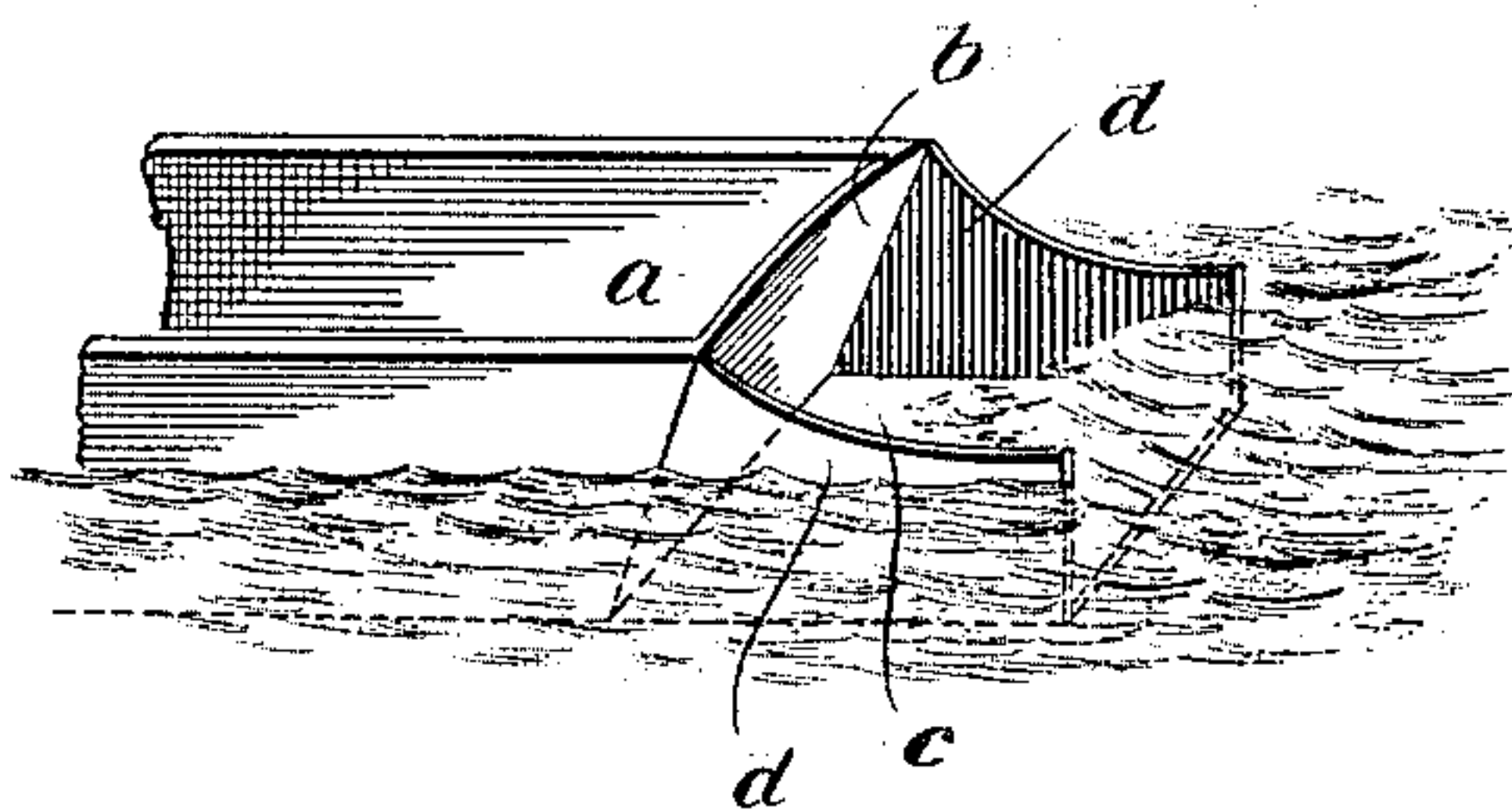
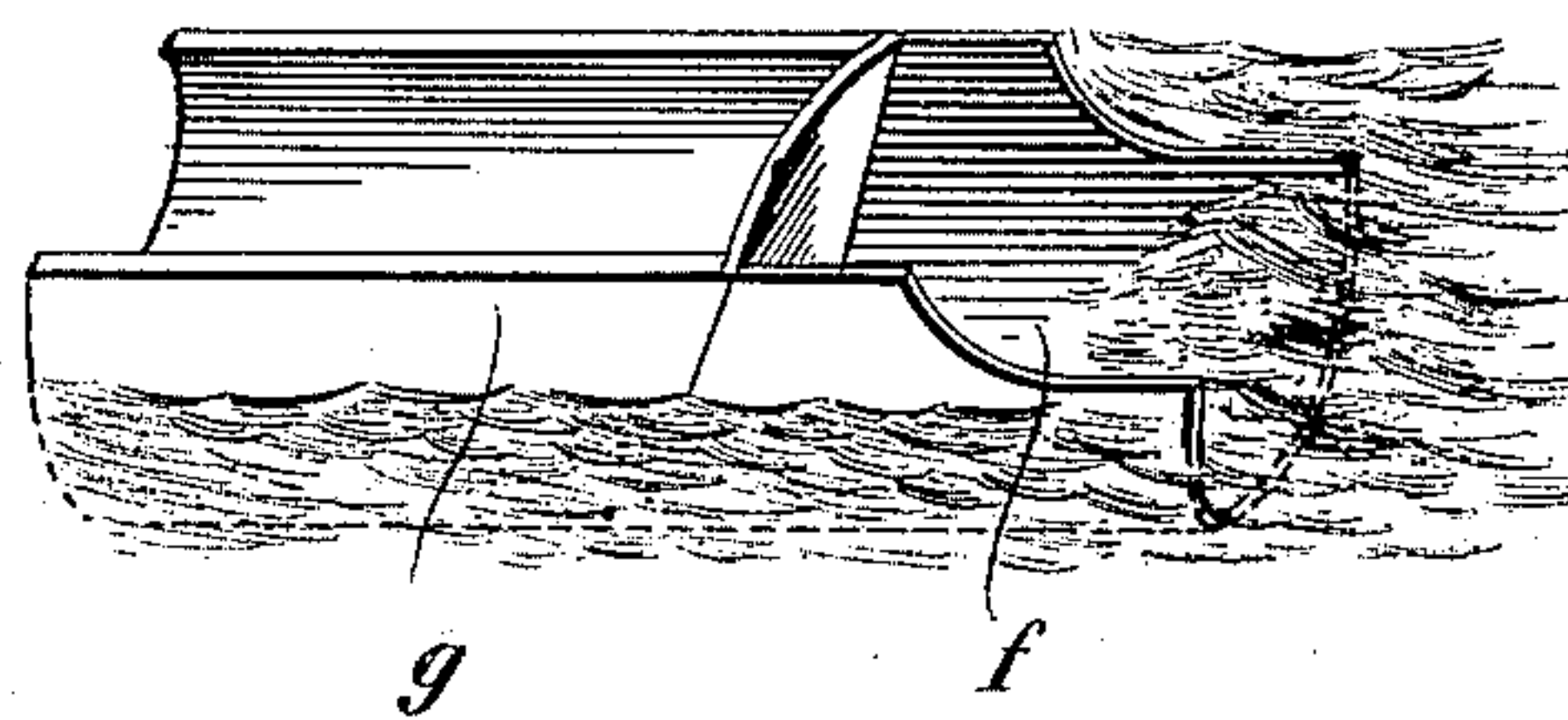


Fig. 3.



WITNESSES:

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WILLIAM NIEMEYER, OF ST. JOSEPH, MISSOURI.

MARINE VESSEL.

SPECIFICATION forming part of Letters Patent No. 688,672, dated December 10, 1901.

Application filed May 17, 1901. Serial No. 60,677. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM NIEMEYER, a citizen of the United States, and a resident of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and Improved Marine Vessel, of which the following is a full, clear, and exact description.

This invention relates to a marine vessel having a certain peculiar form of hull, which enables it to move through the water with less resistance than heretofore. Specifically this consists in constructing the vessel with a square stern and in providing this stern with a scoop-like rearward projection which provides for a dead-air space at the back of the stern and avoids that suction or drag which is ordinarily incident to the passage of a vessel's hull through the water.

This specification is a specific description of two forms of the invention, while the claims are definitions of the actual scope thereof.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a longitudinal section of the invention, illustrating the action thereof. Fig. 2 is a detail perspective view showing the operation of the invention, and Fig. 3 is a similar view showing a slight modification.

a indicates the vessel's hull, which may be of any form desired, from a row-boat to a ship of any tonnage. This hull is provided with a square stern *b*, and projecting rearward from the hull is an extension from the bottom or floor of the hull extending straight aft and open at its rear end. This extension comprises (see Figs. 1 and 2) a bottom wall *c* and side walls *d*. In Figs. 1 and 2 a flat-bottomed boat is shown, and in this case the side walls *d* conform to the shape of the side

walls of the boat, while the bottom *c* of the rearward extension conforms to the shape of the bottom. A vessel thus constructed when driven through the water in the direction of the arrow in Fig. 1 will clear the water out of the rearward extension and leave an air-space behind the stern *b*. This avoids the action of the water at the stern of the vessel, as is usual in other vessels, and thus allows the hull to be driven through the water with no other resistance other than that due to the displacement and friction.

Fig. 3 shows the invention adapted to a round-bottomed boat, in which the extension *f* is rounded in cross-sectional form in conformity with the rounding or dead rise of the hull, (indicated at *g*.) In this form of the invention the operation is the same as that above described.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A vessel having a rearward extension from its stern, such extension lying beneath the surface of the water when the vessel is in motion and being in the plane of the bottom and sides of the vessel and having an open rear end, for the purpose specified.

2. A vessel having a square stern, and a rearward extension therefrom, said extension lying beneath the surface of the water when the vessel is in motion, said extension being located in the planes of the bottom and sides of the vessel and being open at its rear end.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM NIEMEYER.

Witnesses:

WILLIAM FOSTER BRAZIER,
JAMES ADAMS.