

(No Model.)

G. ROOKE.
BOAT.

No. 527,511.

Patented Oct. 16, 1894.

Fig. 1.

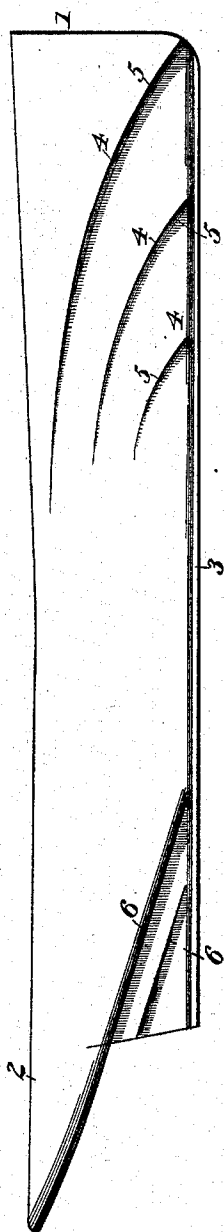
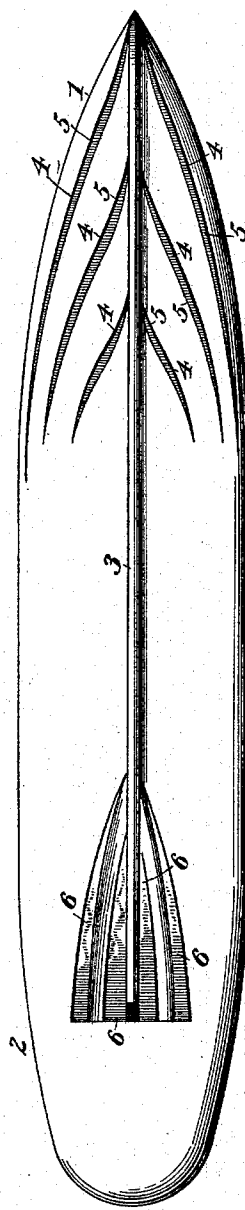


Fig. 2.



Witnesses;

J. M. Thero
G. E. Dulien

Inventor,
George Rooke

By Napkins K. K. K.
Attorney

UNITED STATES PATENT OFFICE.

GEORGE ROOKE, OF EMPORIA, KANSAS.

BOAT.

SPECIFICATION forming part of Letters Patent No. 527,511, dated October 16, 1894.

Application filed January 16, 1893. Renewed March 8, 1894. Serial No. 502,921. (No model.)

To all whom it may concern:

Be it known that I, GEORGE ROOKE, of Emporia, county of Lyon, and State of Kansas, have invented certain new and useful Improvements in Boats, of which the following is a specification, reference being had to the accompanying drawings.

The object of my invention is to control and utilize the displacement of water at a ship's bow to assist the propulsion of the ship; and also to use in like manner and for the same purpose the replacement of the water at the stern.

In the accompanying drawings, Figure 1 is a side elevation of a boat embodying my invention. Fig. 2 is a bottom plan view of the same.

Referring to the figures on the drawings, 1 indicates the bow of a boat, and 2 its stern.

3 indicates the keel of the boat.

Upon the bow of the boat are placed a guide, or guides or projections 4, preferably arranged in series, and defined by recesses or offsets 5. These guides or guide may be built upon the ship or cut into it, or molded or shaped upon it in any suitable manner. The guides preferably commence at the keel and extend obliquely and rearwardly across the bows.

I do not limit myself to any particular angle or pitch or mold of guide.

Upon the stern I employ guides 6 extending similarly to the bow-guides 5 from the keel across the stern. The angle or pitch of the stern-guides may be varied at will, but should correspond in individual instances in general

shape and direction with the bow-guides. By the employment of these guides, defined by recesses as they are, the water displaced by the bow, is retained by the guides, and, rushing up in the recesses, strikes against the guide of the recesses, and urges the boat in the forward direction. The water under the stern closes up and around the guides, and, striking in like manner against the sides of the recesses, also aids to propel the boat.

What I claim is—

1. A hull provided with a series of steps at its bow converging from the keel of the boat toward its stern and toward a line parallel with the keel, and preferably gradually curved, substantially as specified.

2. A hull provided with a series of steps at its stern, the corresponding steps upon opposite sides converging toward the bow and to the keel and preferably gradually curved, substantially as specified.

3. A hull provided with a series of steps at its bow converging from the keel of the boat toward its stern and toward a line parallel with the keel and a series of steps at its stern, the corresponding steps upon opposite sides converging toward the bow and to the keel, both series of steps, at the bow and stern, being preferably curved, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

GEORGE ROOKE.

Witnesses:

W. A. BEST,

JAMES GAUGHAN.