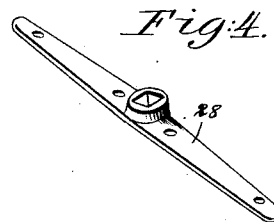
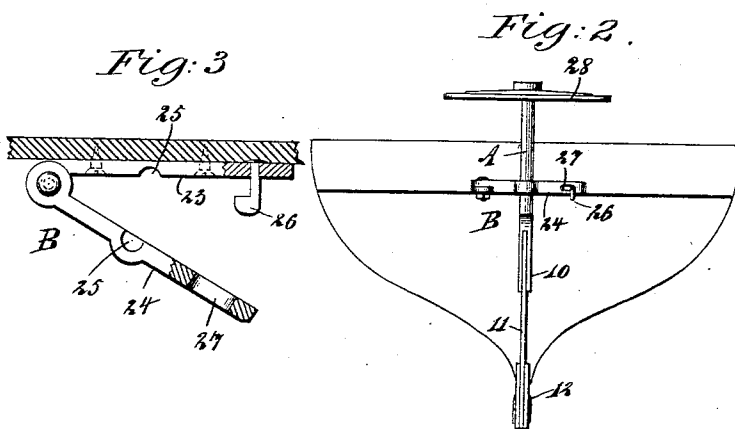
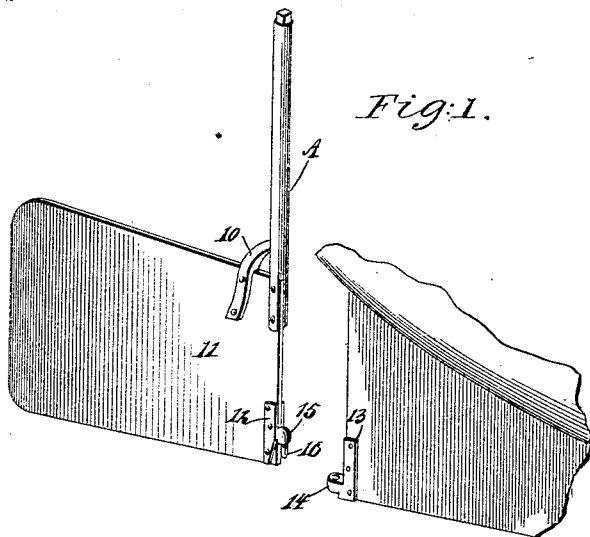


(No Model.)

L. M. THOMAS.
RUDDER FOR BOATS.

No. 580,237.

Patented Apr. 6, 1897.



WITNESSES:
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UNITED STATES PATENT OFFICE.

LEVI M. THOMAS, OF PUNTA GORDA, FLORIDA.

RUDDER FOR BOATS.

SPECIFICATION forming part of Letters Patent No. 580,237, dated April 6, 1897.

Application filed May 4, 1896. Serial No. 590,186. (No model.)

To all whom it may concern:

Be it known that I, LEVI M. THOMAS, of Punta Gorda, in the county of De Soto and State of Florida, have invented a new and Improved Rudder for Boats, of which the following is a full, clear, and exact description.

My invention relates to an improvement in rudders especially adapted for sloops and vessels of a similar class, or for small boats; and the object of the invention is to provide a rudder in which each and every part connected therewith will be strong, durable, and simple in construction and may be replaced when damaged.

Another object of the invention is to so construct the rudder-stock that the blade will be effectually prevented from twisting and to provide a ready means for shipping and unshipping the rudder and for connecting the rudder-stock directly at the stern or passing the stock downward through the deck at the stern-section of a boat.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claim.

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 figures.

Figure 1 is an enlarged side elevation of the stern-section of a boat and a perspective view of a rudder unshipped therefrom. Fig. 2 is an end view of the rudder applied directly to an end of a boat. Fig. 3 is a horizontal section through the stern portion of the boat shown in Fig. 2 and a partial plan and partial horizontal section through the fastening device illustrated in Fig. 2, and Fig. 4 is a perspective view of a yoke used in connection with a rudder-stock when the rudder is applied to a small boat.

In carrying out the invention the rudder-stock A is provided at its lower end with a bracing-arm 10, which is projected downwardly and outwardly from the stock, thereby causing the lower end of the stock to be more or less bifurcated, and each lower member of the stock is slotted to receive the upper portion of the rudder-blade 11, the members of the stock being secured to the said blade by means of bolts or their equivalents. In this

manner the upper portion of the rudder is so braced and strengthened that the blade will not twist even in a heavy sea.

When the rudder is used in connection with a boat such as a sloop, as shown in Fig. 1, or where the rudder-stock is passed through the deck, the lower rear end of the rudder is attached to the stern of the boat in a pivotal manner by means of a fitting comprising two plates 12 and 13. The plate 13 is provided with a longitudinal opening at the back, and at the bottom the said plate has a socket 14 formed therein, the plate being adapted to receive between its members the skeg of the boat and is located at the extreme lower portion of said skeg. The plate 12 is likewise slotted, preferably from end to end, and receives between its members the forward portion of the rudder-blade 11, as shown in Fig. 1, and the plate 12 is provided with an outwardly-extending offset 15, provided with a downwardly-extending pin 16, the pin being adapted to enter the socket in the skeg-plate 13, whereby the lower portion of the rudder has a hinged connection with the stern of the boat and yet may be readily unshipped when desired.

When the rudder is to be attached to the deck of a fishing-skiff, for example, as shown in Fig. 2, the plate and the stock are of the same construction, and the bearing for the rudder will consist of a clamp B, (shown best in Fig. 3,) the said clamp comprising two bars 23 and 24, which have a hinged connection at one of their ends, and both plates are provided with a semicircular recess 25, the recesses being in transverse alinement, forming a central bearing in which the rudder-stock may readily turn. The bar 23 is secured horizontally to the central portion of the stern of the boat and is usually provided with a turn-button 26, which is passed through an opening 27 in the opposing bar 24 when the two bars are brought together, and by turning the head of the button 26 transversely of the opening 27 the members of the clamp will be locked together, and the rudder may be readily unshipped, if desired, and if the boat should capsize the rudder will not be lost.

A yoke 28 (shown in Fig. 4) is adapted to be placed upon the rudder-stock to be used

in connection with a rope-tiller when the rudder is applied to a small boat. It is evident that each and every part of the rudder is exceedingly strong, yet of simple construction, and that any one or all of the parts may be duplicated when occasion shall demand.

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

- 10 The combination with a rudder-stock having a bracing-arm projected outwardly and downwardly from a side near its lower end, the stock and arm being vertically slotted to receive the upper portion of a rudder-blade, 15 the lower portion of said blade having pivotal connection with said boat consisting of two independent plates longitudinally slotted,

one plate being attached to the skeg of a boat, and having a socket, and the other plate being attached to said rudder-blade and having a pivot-pin adapted to enter said socket, of a bearing for said stock attached directly to the rear of a boat, said bearing consisting of a clamp formed of parallel bars having hinged connection, the bars being provided with alining recesses in their opposing faces, the outer bar having an opening near its free end, and the inner bar having an adjustable locking device arranged to enter said latter opening, as and for the purpose set forth.

LEVI M. THOMAS.

Witnesses:

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ROBERT B. ROWLAND.