

(No Model.)

W. J. RANKINS.

FENDER SPAR.

No. 379,329.

Patented Mar. 13, 1888.

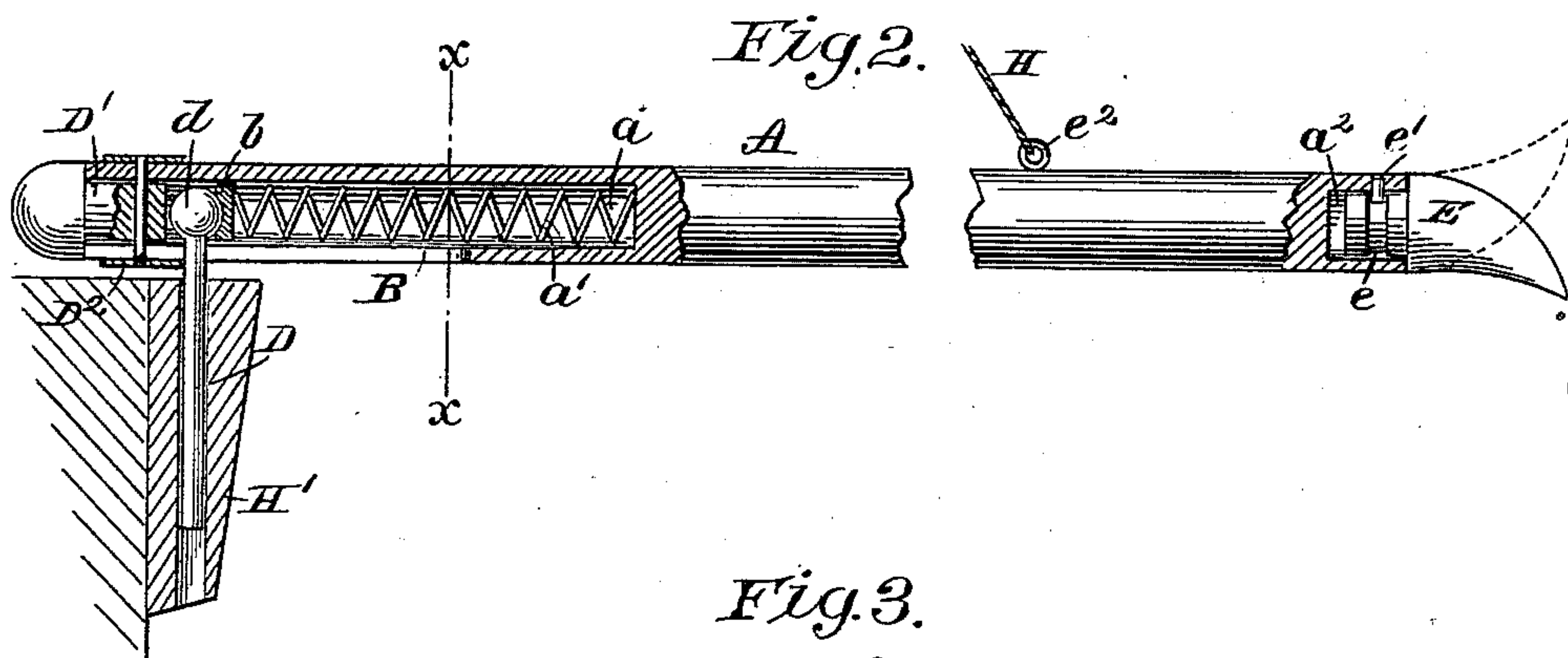
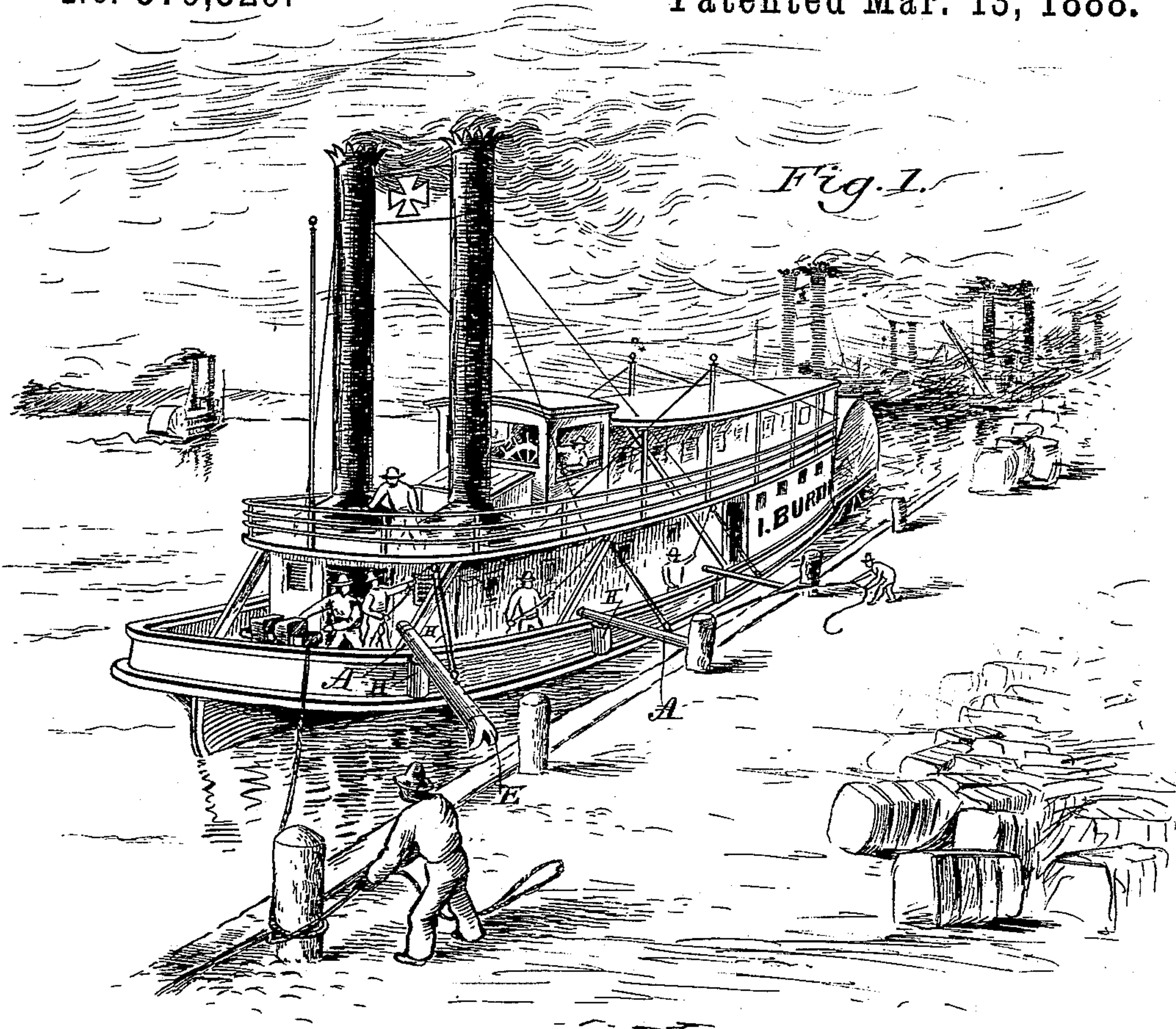
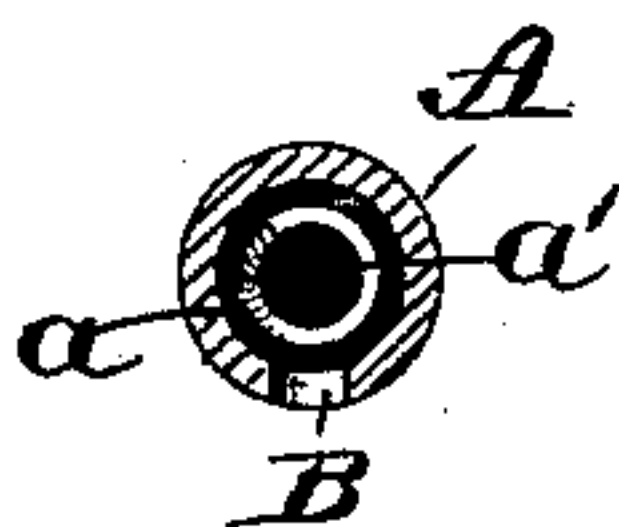


Fig. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM J. RANKINS, OF AUGUSTA, KENTUCKY.

FENDER-SPAR.

SPECIFICATION forming part of Letters Patent No. 379,329, dated March 13, 1888.

Application filed January 13, 1888. Serial No. 260,588. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. RANKINS, of Augusta, in the county of Bracken and State of Kentucky, have invented a new and Improved Fender-Spar, of which the following is a full, clear, and exact description.

My invention relates to an improvement in fender-spars adapted for use on steamboats, wharfs, and flat and ferry boats, and has for its object to provide a device unaffected by the rise and fall of the tide or the action of ice in the river, and which will obviate the severe jar at present consequent upon boats making a landing either at the wharf or at wharf-boats, and wherein, if the boat should by any means be forced nearer the dock than originally intended when the motive power is removed, the boat will automatically be returned to its original position.

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

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

Figure 1 illustrates one application of my fender-spar. Fig. 2 is a side elevation of the spar partly in section, and Fig. 3 is a transverse section on line $x x$ of Fig. 2.

In carrying out the invention, A represents a spar provided with an extended longitudinal bore, a , at the inner end, in which a spring, a' , is coiled, and a shorter longitudinal bore, a'' , at the outer end.

In the under side of the spar a longitudinal slot, B, is cut intersecting the bore a , and extending from the inner end of the spar outward nearly the length of said bore, as shown in Fig. 2.

Against the inner end of the spring a' a circular plate, b , is made to bear, which plate is engaged by the head d of a pin, D, the inward movement of the said pin-head being limited by a plug, D' , entered the inner end of the spar, and the plug is retained in position and the spar strengthened by a thimble, D^2 , through which ferrule, plug, and spar a pin or screw or

equivalent fastening device is passed, as illustrated in Fig. 2.

In the bore a'' at the outer end the shank of a bifurcated head-block, E, is entered to turn therein, being provided to that end with an annular groove, e , in the shank adapted to receive a pin, e' , inserted in the spar. One surface of the head-block is decidedly convex and the opposing surface slightly concave, whereby a claw-like appearance is imparted thereto. At a point upon the upper surface of the spar an eye, e^2 , is attached or inserted, to which a tackle, H, is secured leading inboard to any desired point.

In operation a bracket, H', is attached to the wharf or the gunwale of a boat, and in said bracket the projecting end of the pin D is socketed. Thus, if attached to a boat, by allowing the bifurcated end to drop down to the bottom the boat may be held steady for repairs or painting or kept a given distance off shore, or the spar, as illustrated, may be employed to ease the approach of a vessel to a dock or be utilized to keep the same a given distance from the same when loading, unloading, or simply tied up.

The head-block is made reversible in order that the claws may be reversed to accommodate the spar to the rising or falling of the tide or river.

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

1. A spar provided at its inner end with a pivot having a sliding and yielding connection therewith, and at its outer end with a head-block, substantially as described.

2. A spar provided at its inner end with a pivot having a sliding and yielding connection therewith, and at its outer end with a reversible bifurcated head-block, substantially as described.

3. In a fender-spar, the combination, with a slotted tubular body, a spring held in one end thereof, and a reversible head-block supported in the opposing end, of a headed pin engaging the said spring and a bracket adapted as a socket for the pin, substantially as shown and described, and for the purpose set forth.

4. In a fender-spar, the combination, with
a slotted tubular body, a spring held in the
inner end thereof, a plate to the rear of said
spring, and a reversible bifurcated head-block
5 in the outer end, of a headed pin engaging the
said plate and bearing upon the spring, a
bracket adapted as a socket for said pin, and

means, substantially as shown and described,
for raising and lowering the spar, as and for
the purpose herein set forth.

WILLIAM J. RANKINS.

Witnesses:

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F. W. ALLEN.