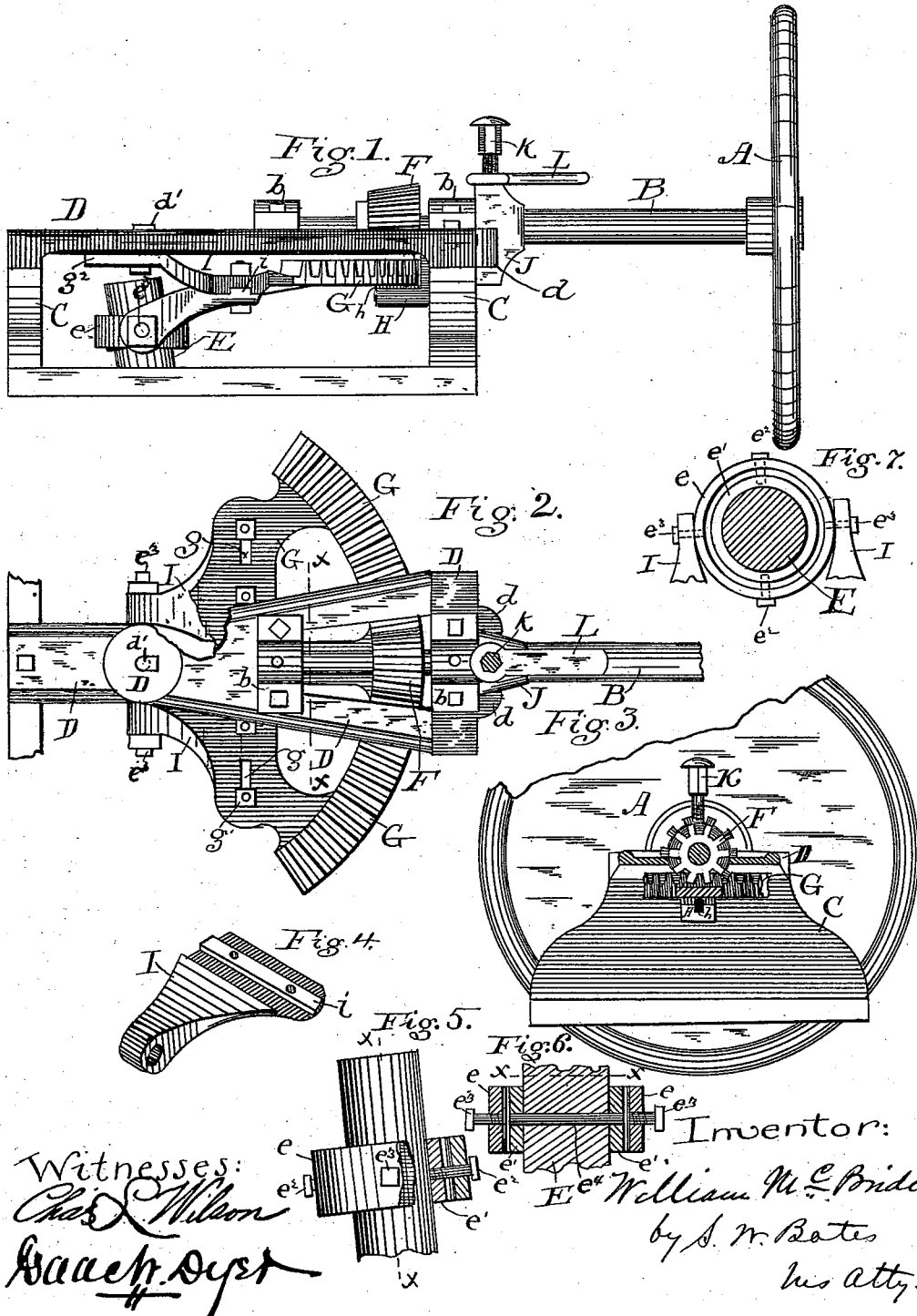


(No Model.)

W. McBRIDE.
STEERER FOR INCLINED RUDDER POSTS.

No. 423,486.

Patented Mar. 18, 1890.



UNITED STATES PATENT OFFICE.

WILLIAM MCBRIDE, OF PORTLAND, MAINE.

STEERER FOR INCLINED RUDDER-POSTS.

SPECIFICATION forming part of Letters Patent No. 423,456, dated March 18, 1890.

Application filed October 14, 1889. Serial No. 326,956. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MCBRIDE, a citizen of the United States, residing at Portland, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Steerers for Inclined Rudder-Posts; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to steering-gear for inclined rudder-posts; and the object of the invention is to construct a steering-gear which may be applied to an inclined rudder-post of any size and with any ordinary degree of inclination, and which may be used in connection with any form of steerer.

In carrying out this invention I make use of two concentric rings, the inner one of which is secured to the rudder-post. The outer ring is then pivoted to the inner ring fore and aft, and in quadrant-steerers the quadrant is pivoted to the outer ring laterally. I also provide the quadrant with lugs which are adjustable laterally to fit various sizes of rings.

My invention consists in the various combinations set forth in the accompanying claims.

I illustrate my invention in the accompanying drawings, in which—

Figure 1 is a side view of a quadrant-steerer embodying my invention. Fig. 2 is a plan view of the same. Fig. 3 is a section on *xx* of Fig. 2. Fig. 4 is a detail of the adjustable lug. Fig. 5 is a part section through the rings, taken fore and aft. Fig. 6 is a section on *xx* of Fig. 5. Fig. 7 is a section through *xx* of Fig. 6.

I here represent my invention as being applied to a quadrant-steerer, although it is obvious that it can be applied to other forms of steerers.

A represents the steering-wheel, and B the shaft.

C C are uprights, which are to be secured

to the deck, and D is a top plate connecting the uprights.

b b are boxes in which the shaft B rotates, and F is a pinion secured to the shaft. The shaft passes through a block J, which is secured in place by fitting over the lugs *d*, which extend out from the end of the plate D. A clamping-screw K passes through the block J and impinges on the shaft B. A wrench L is provided to fit the squared head of the set-screw K.

G is the quadrant, which is operated by the pinion F. The quadrant is fitted with slots *g*, which extend laterally, and through these slots pass bolts *g'*, which secure it to lugs I. The quadrant is provided with an extension *g''*, which extends out over the end of the rudder-post, and through the center of rotation a pivot *d'* passes, connecting the quadrant with the plate D. On the inner side of the upright C is a ledge H, having a wearing-block *h*, on which the edge of the quadrant rests, and which receives the wear. The adjustable lugs I are each provided with a rib *i*, which fits a corresponding groove in the under side of the quadrant G. Over the inclined rudder-post E, I pass a ring *e'*, and secure it thereto by suitable means—here shown as a bolt *e'* passing directly through it. To the inner ring I pivot fore and aft an outer ring *e*, by means of pivots *e''*. The ring *e* is made somewhat larger than the inner ring *e'* and concentric with it. The lugs I are pivoted laterally to the outer ring *e*, by means of pivots *e'''*, which enter the sides of the ring *e*. It will be seen as a result of this construction, the tiller or quadrant may be rotated in a horizontal plane, and the rings will always conform themselves to the inclination of the rudder-head.

The device is cheaply made, simple, and may be applied to any form of steerer. The rings are made in sizes to fit various sizes of rudder-heads, although one size of ring may be used for several sizes of rudder-heads by cutting the latter down. One size of quadrant is adapted to fit many sizes of rudder-heads by the lateral adjustment provided by the lugs I, which can be set any required distance apart according to the diameter of the

outer ring, the bolts *g'* being clamped at the proper point within the slot *g*.

Instead of having an inner ring secured to the rudder-post, I may pivot the ring *e* directly to the rudder-post and thus produce the same result. The inner ring, as here used, becomes a part of the post; but in manufacturing the device it is more convenient to construct the rings as a separate device capable of being applied to any required case, rather than to connect the outer ring directly to the rudder-post.

I claim—

1. The herein-described steering-gear for inclined rudder-posts, consisting of an inner ring secured to the post, an outer ring pivoted fore and aft to said inner ring, and a quadrant pivoted laterally to said outer ring, and a steering-wheel shaft and pinion for operating said quadrant, in combination, substantially as described.

2. The herein-described steering-gear for inclined rudder-posts, consisting of an inner ring secured to said post, an outer ring pivoted fore and aft to said inner ring, a quad-

rant and lugs adjustably secured thereto, said lugs being pivoted laterally to said outer ring, in combination substantially as shown.

3. The herein-described steering-gear consisting of an inclined rudder-post, a ring pivoted fore and aft to said rudder-post, and a quadrant pivoted laterally to said ring, and a steering-wheel shaft and pinion for operating said quadrant, in combination substantially as shown.

4. In a steering-gear for inclined rudder-posts, the combination of a ring pivoted fore and aft to said post, a quadrant having lugs or arms pivoted to the sides of said ring and having an extension above said rudder-post, a top plate and a pivot connecting said extension with said top plate vertically above the center of said ring, substantially as shown.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM McBRIDE.

Witnesses:

WM. M. HAGGETT,

S. W. BATES.