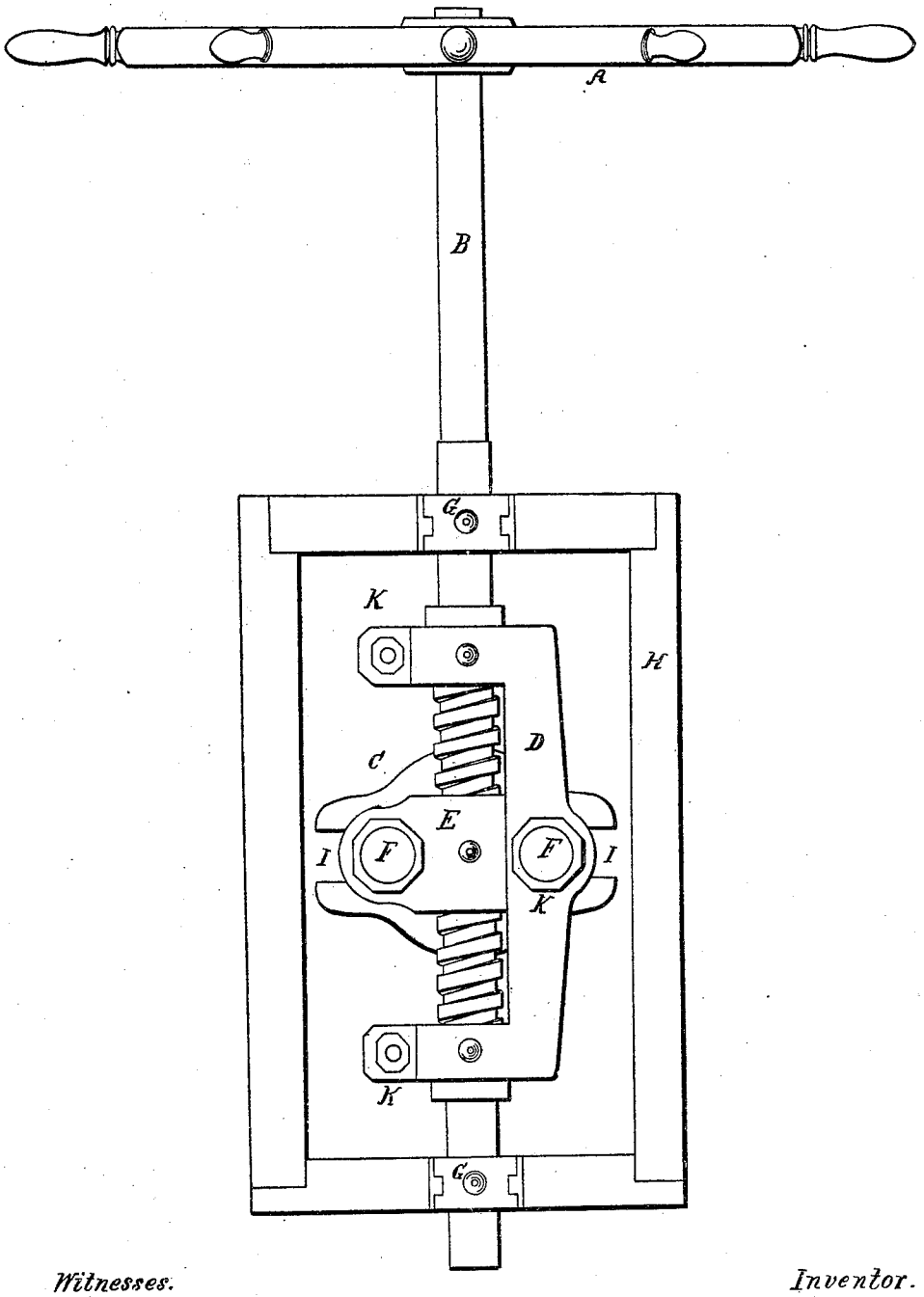
F. A. Morley,

Steering.

No. 1,776.
No. 32,780.

Patented July 9, 1861.



Witnesses.
W. B. Morley
E. Dowell

Inventor.
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UNITED STATES PATENT OFFICE.

F. A. MORLEY, OF SODUS POINT, NEW YORK.

STEERING APPARATUS.

Specification of Letters Patent No. 32,780, dated July 9, 1861.

To all whom it may concern:

Be it known that I, FRANKLIN A. MORLEY, of Sodus Point, in the county of Wayne and State of New York, have invented a new and useful Steering Apparatus for Operating the Rudders of Vessels; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon.

The nature of my invention consists of a longitudinal moving screw, and single nut, attached to opposite sides of rudder head, by suitable connections, so as to make a very simple and efficient apparatus.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

In the accompanying drawing A, is the hand wheel,—B, the shaft of same, combined with the screw;—E, is the nut;—D, connecting piece, which communicates the longitudinal motion of the screw to the rudder head, and is formed in two parts so as to fit on over a shoulder formed on the shaft, and is screwed together at K, K, K.

C, is the rudder head, connection being made between it and nut E, on one side, and connecting piece D, on the other, by the bolts F, F, which are formed with a flat surface on their lower ends, which work in the grooves or slots I, I, in the rudder head, or cap.

G, G, are boxes arranged so as to slide up on guides, when the apparatus and rudder are raised.

H, represents the box or covering.

I believe I have described and represented the apparatus which I have invented for operating the rudders of vessels, so as to enable any person skilled in the art to make and use it; I will now state what I desire to secure by Letters Patent, to wit,

I do not claim the slotted rudder cap C, and bolts F, F, as these have been known and used heretofore, but—

I claim—

1. The combination of the screw and connecting piece D, and single nut E,—screw and connecting piece D, moving longitudinally and in an opposite direction to nut E,—for operating the rudders of vessels, substantially as described.

2. In combination with the above the guides and grooved boxes G, G, to accommodate the upward motion of rudder as described.

FRANKLIN A. MORLEY.

Attest:
W. B. MORLEY,
E. DOVIE.