

J. W. Drummond. Steering.

N^o 15,510.

Patented Aug. 12, 1856.

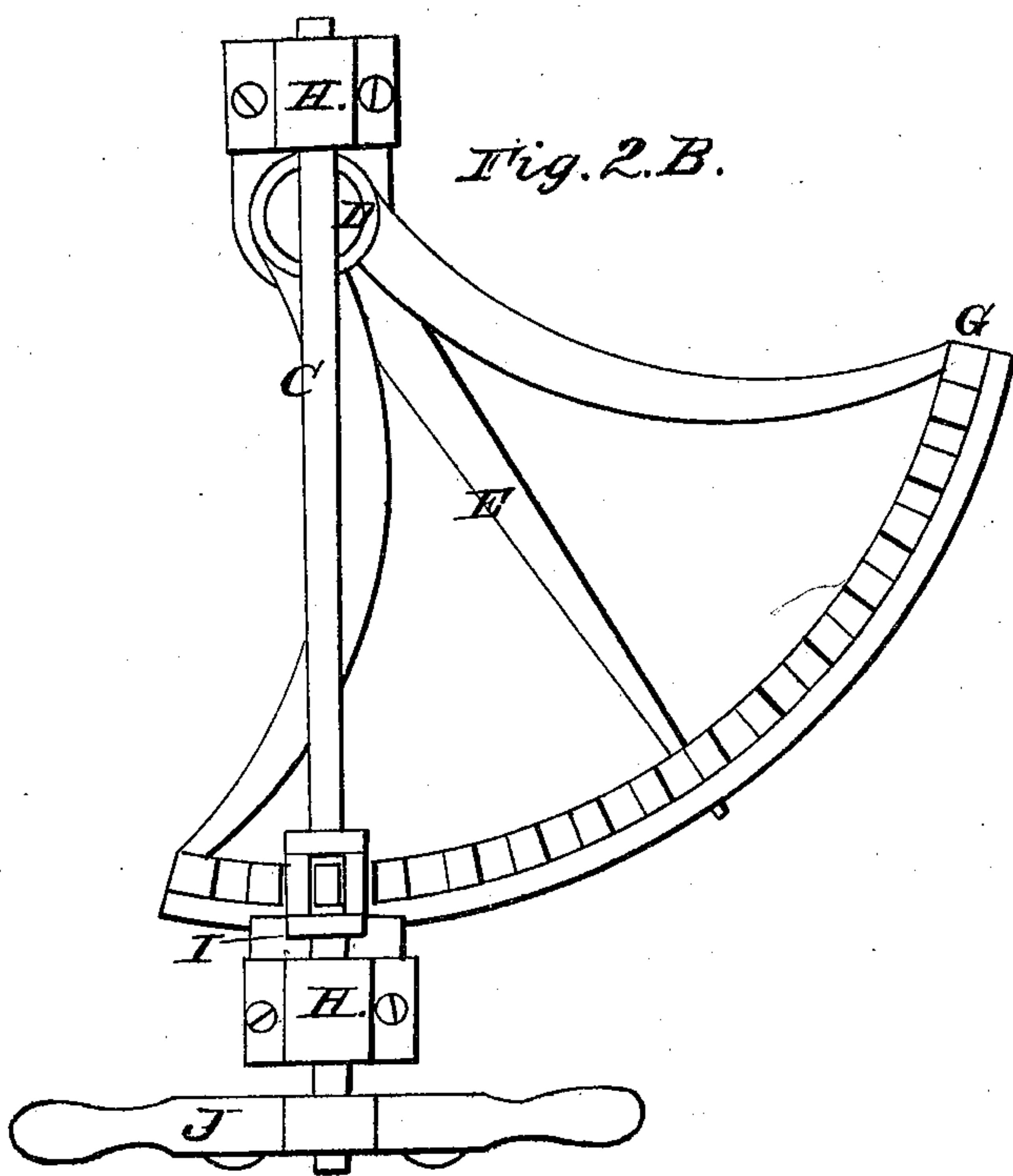
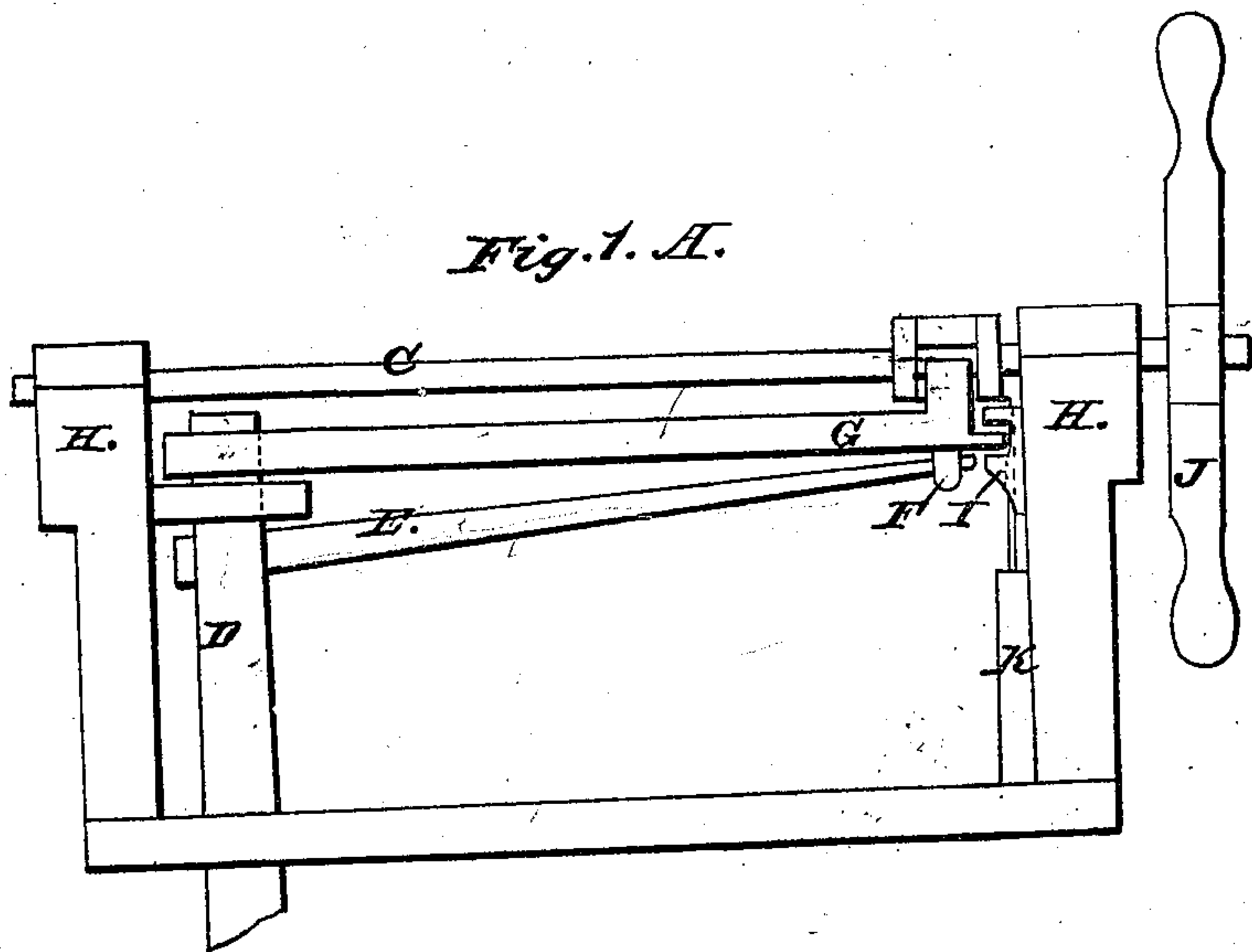


Fig. 3. C.



UNITED STATES PATENT OFFICE.

JOHN W. DRUMMOND, OF NORWALK, CONNECTICUT.

STEERING APPARATUS.

Specification of Letters Patent No. 15,510, dated August 12, 1856.

To all whom it may concern:

Be it known that I, JOHN W. DRUMMOND, of the town of Norwalk, Fairfield county, State of Connecticut, have invented a new and Improved Steering-Gear; and I do hereby declare that the following is a full and exact description thereof.

The object of my invention is to connect the steering wheel with the rudder-head, that the action of the waves on the rudder will not turn it; and to this end the nature of my invention consists in so arranging a double wristed or two leaved pinion, acted on by the steering wheel, that said two leaves or wrists when placed on the plane of motion of a sector or wheel acting on the rudder, shall have no tendency to rotate the steering wheel, and to this end I have applied and shown herein two wrists, one on each side of the axis of the steering-wheel shaft, with an open space between them equal to and capable of receiving any one of the cogs of the sector rack, while each one of the said wrists will fit and pass in between the cogs of the said sector rack. Under the wrists or leaves of the pinion is placed a rod with a T head passing down through the check block or stanchion and resting on a spring to prevent the rack from turning the pinion more than one-fourth of an evolution. Then, by turning the steering-wheel shaft, the wrists will, in succession, engage the cogs of the sector rack and they turn the rudder; but, by reason of leaving the two wrists or cogs of the pinion on opposite sides of the axis of the steering-wheel shaft when they are placed in a plane parallel with the plane of motion of the sector rack, the cogs of the said rack when acting on the said wrists cannot turn the steering-wheel shaft and will be thoroughly locked, yet at any time, by the turning of the steering wheel, the sector rack and rudder can be readily turned.

In the accompanying drawing Figure 1, letter A represents an elevated side-view. Fig. 2, letter B represents a top view. Fig. 3, letter C the steering wheel shaft in which is represented the double wrist or two leaved pinion.

D represents the rudder post; E, the tiller; F, the lock holding the tiller to the sector rack; G, the sector rack; H, H, the chuck block or stanchions; I, the groove through which the sector-rack (G) passes to hold it firmly to the two-wristed pinion; (J), the steering-wheel on the end of the shaft (C); K, the spring on which rests a rod having a T shaped head; resting against the two wrists of the pinion to take off the momentum of the steering-wheel when put in motion by the sector rack so as to prevent its being carried over by the action of a surge of the waves.

I do not claim a sector attached to the rudder head, acted on by a pinion, as this has before been done; but I am not aware that a two wristed or leaved pinion actuated by the steering wheel has ever before been so applied, in connection with the aforesaid sector, that the two wrists or leaves of the pinion can be placed on the plane of motion of the sector, and thereby avoid all tendency to turn the steering wheel by any surge or wave against the rudder; and also in connection with said two leaved or wristed pinion I make use of a spring or its equivalent, to hold the wrists of said pinion on the desired plane.

Therefore what I claim, and desire to secure by Letters Patent, is—

Arranging a pinion having two leaves or wrists in such a manner relatively with the sector or wheel acting on the rudder that the said wrists or leaves can be turned into the plane of motion of said sector or wheel, to prevent motion to the steering wheel by any surge or wave against the rudder, as specified, and in combination with the aforesaid two wristed or leaved pinion I claim the T headed rod and spring K, or their equivalents, to tend always to bring the said two wrists or leaves into the plane of motion of the sector or wheel, substantially as specified.

JOHN W. DRUMMOND.

Witnesses:

JESSE PAYNE,
B. SILLICK OSBON.