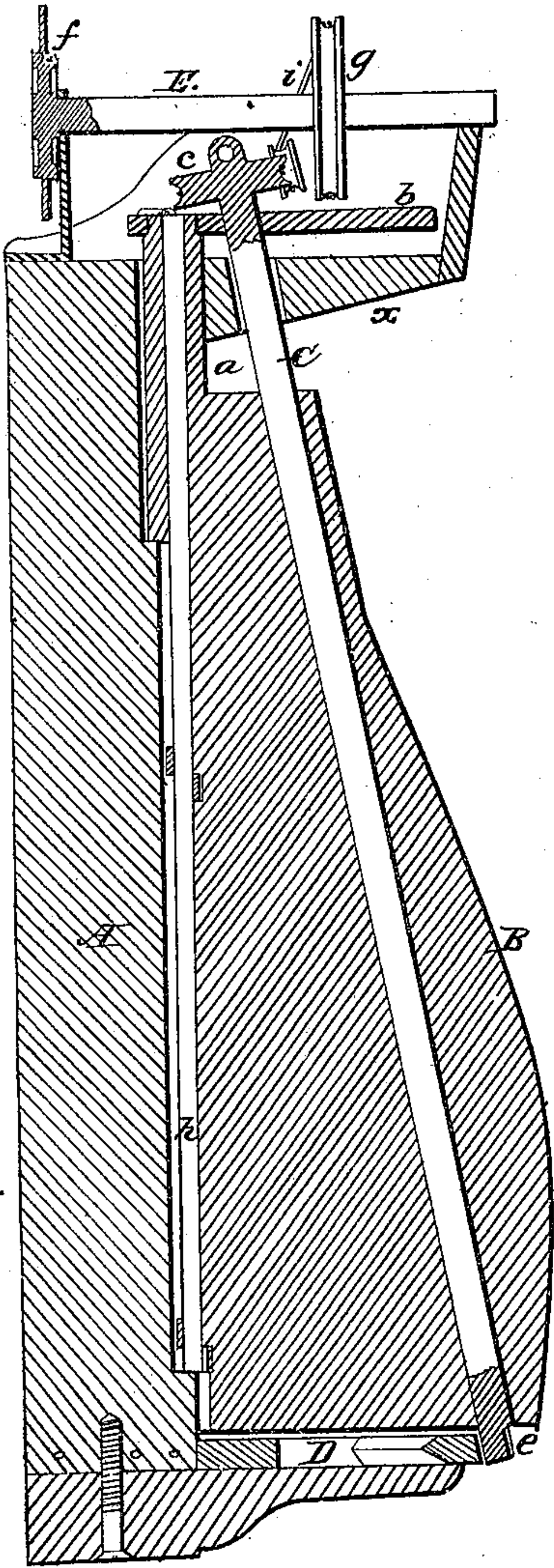


*P. Dinzey.*  
*Steering.*

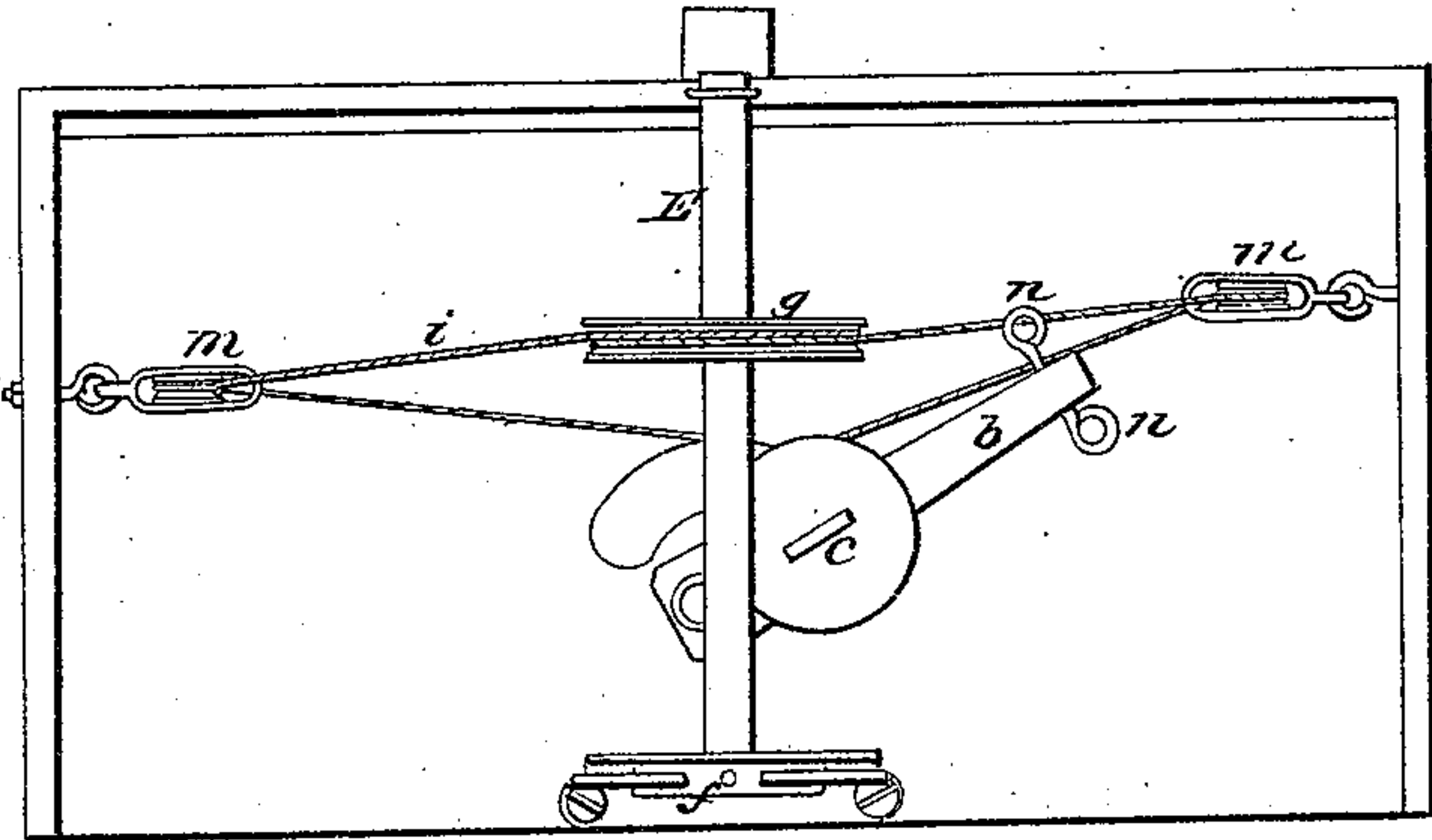
N<sup>o</sup> 55,028.

*Fig. 1.*

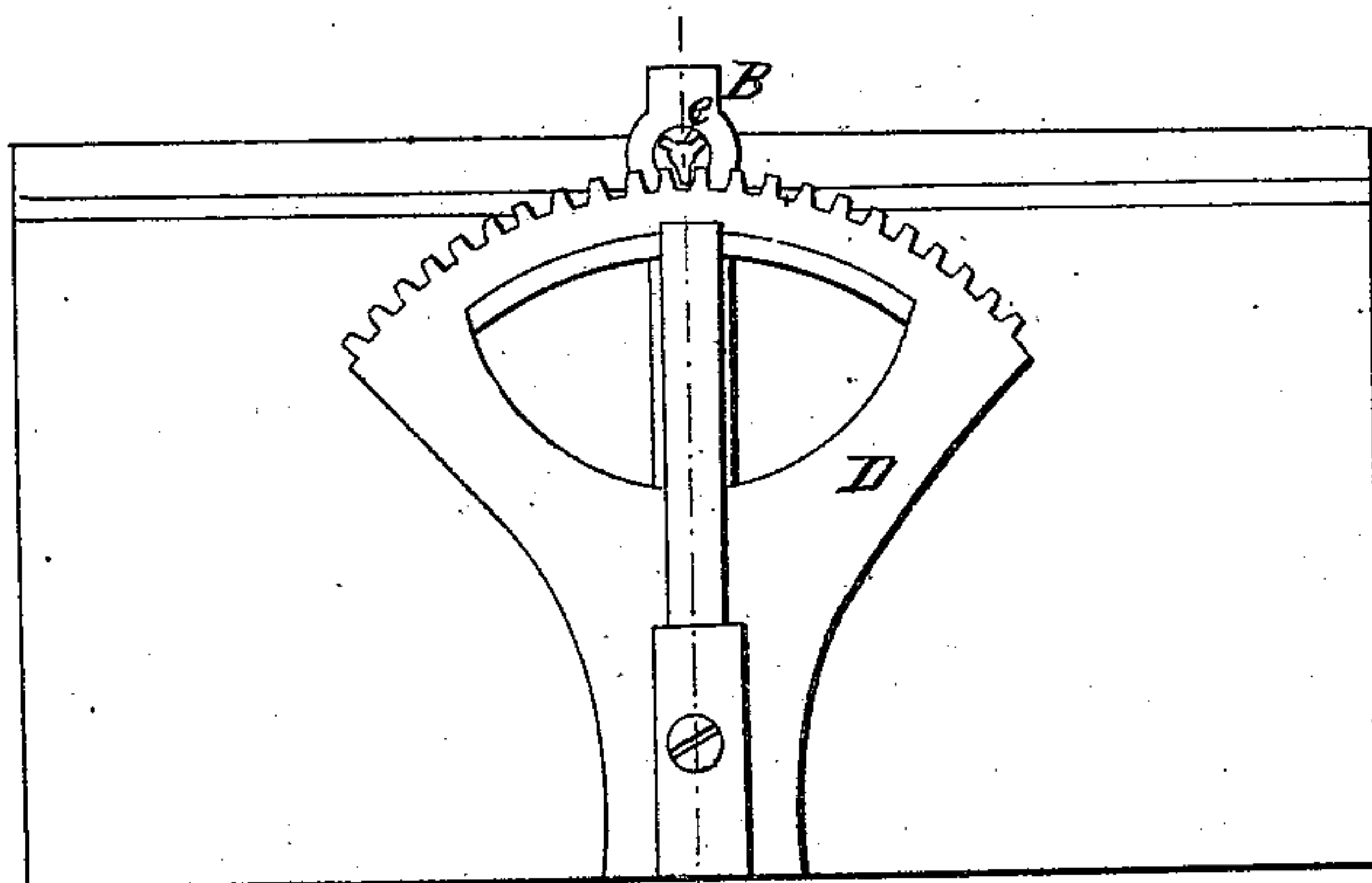


*Patented May. 22, 1866.*

*Fig. 2.*



*Fig 3*



*Witnesses.*

John Parker  
Elizabeth Godwin

*Inventor.*

P. Dineen  
By his Atty  
H. Horton



# UNITED STATES PATENT OFFICE.

PETER DINZEY, OF ST. BARTHOLOMEW, WEST INDIES.

## IMPROVED RUDDER.

Specification forming part of Letters Patent No. 55,028, dated May 22, 1866.

*To all whom it may concern:*

Be it known that I, PETER DINZEY, of St. Bartholomew, West Indies, have invented an Improvement in Rudders of Vessels; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention consists of certain mechanism (fully described hereafter,) to be used in connection with rudders for the purpose of rendering the same more capable of withstanding the strains to which they are subjected than ordinary rudders, and for the further purpose of enabling the helmsman to perform his duties with less exertion.

In order to enable others skilled in the art to make and apply my invention, I will now proceed to describe the manner of carrying it into effect.

On reference to the accompanying drawing which forms a part of this specification, Figure 1 is a sectional elevation, showing the stern of a vessel with my improved rudder attached; Fig. 2 a plan view, and Fig. 3 an inverted plan view.

A is the stern-post of a vessel, to which the rudder B is hung by the usual pintle *h*, the post *a* of the rudder extending above the deck of the vessel, where it is furnished with a tiller, *b*.

In the rudder turns the diagonal shaft C, which extends through a curved slot in the overhang *x* of the vessel, and through the tiller *b*, and to the upper end of the shaft is secured a grooved pulley, *c*. The lower end of the shaft C projects from the rudder near the outer lower corner of the same, and is formed into a pinion, *e*, the teeth of which gear into those of a segment, D, secured to and projecting from the heel of the rudder-post.

In suitable standards secured to the deck of the vessel turns a shaft, E, on which is the usual steering-wheel *f* and a grooved pulley,

*g*, and round the latter, as well as round guide-pulleys *m m'*, turning in snatch-blocks secured to the bulwarks or deck of the vessel, and round the pulley *c*, passes an endless rope or chain, *i*.

At the outer end of the tiller *b* are eyes *n n*, for a purpose described hereafter.

The shaft E is turned by means of the steering-wheel *f*, and the rope or chain *i* is caused to turn the pulley *c*, and with it the shaft C, the pinion *e* traversing the toothed edge of the segment D, so that the rudder must turn on its pintle *h* in a direction depending upon that in which the steering-wheel is turned.

By the mechanism described the rudder is not only easily operated, but it is held steadily in any position to which it may be turned, at the expense of much less labor on the part of the helmsman than an ordinary rudder.

As the rudder is always supported at its outer lower end by the shaft C and segment D, it is capable of withstanding greater strains than a rudder depending solely for its support on the pintle by which it is hung to the stern-post.

The gearing is simple and not liable to get out of order. Should it become injured in any way, however, the shaft C may be entirely withdrawn, and the rope *i*, after being detached from the pulley *c*, can be secured to the eyes *n* on the arm *b*, when the rudder may be operated in the ordinary manner.

I claim as my invention and desire to secure by Letters Patent—

The rudder B, with its shaft C and pinion *e*, in combination with the segment D, the whole being arranged and operating substantially as and for the purpose specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

PETER DINZEY.

Witnesses:

B. V. GUYER,  
FREDERICK LAMBERT.