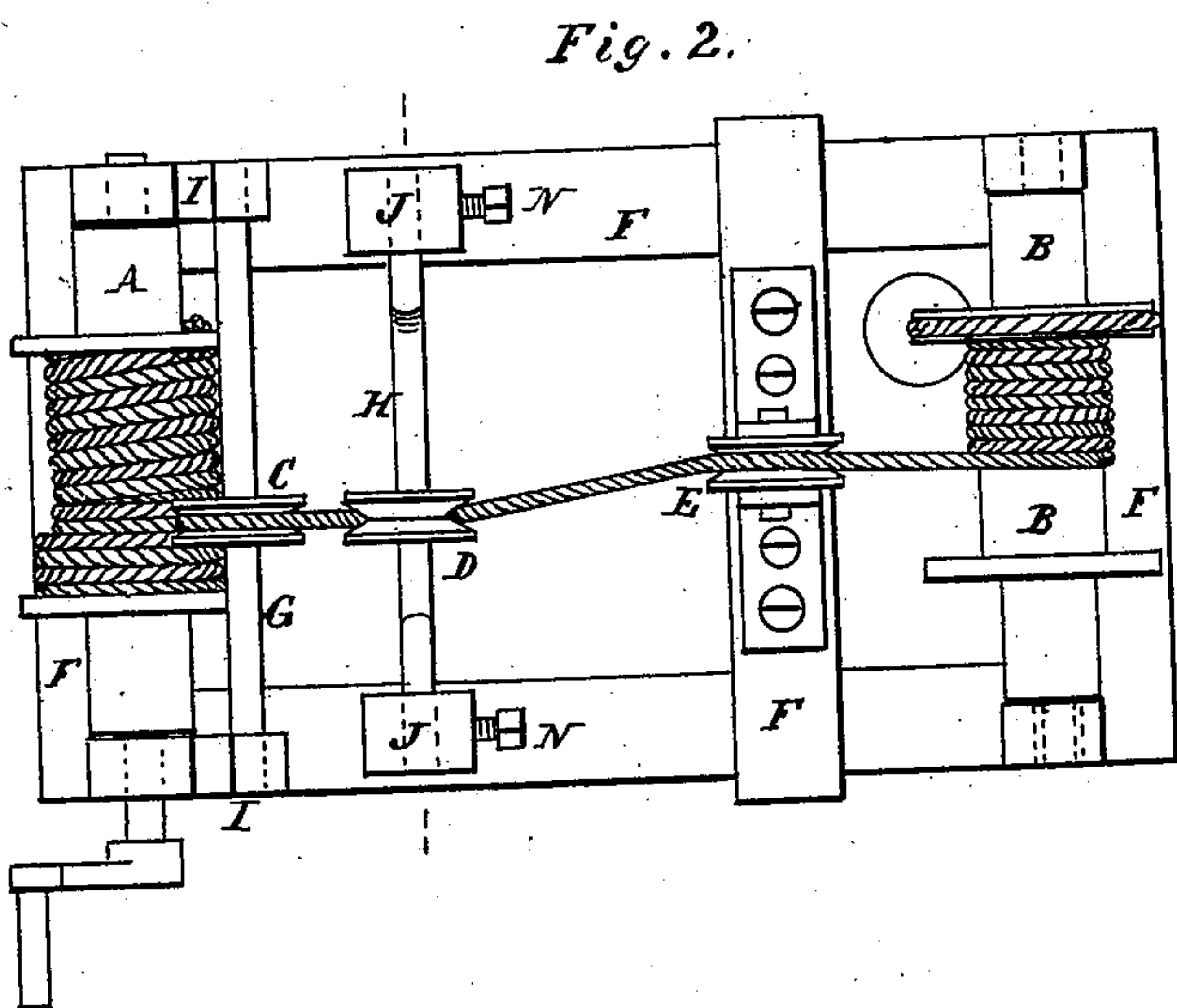
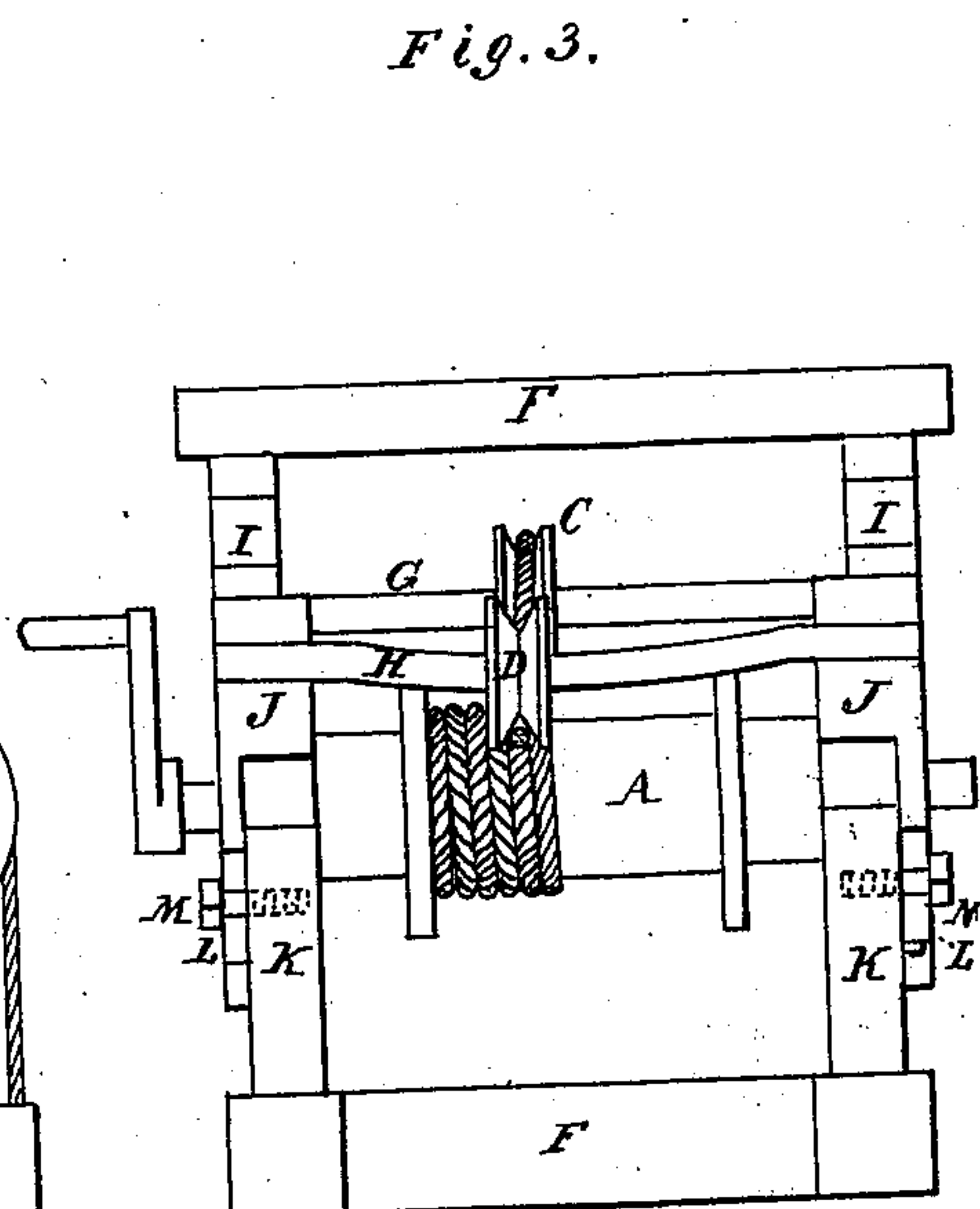
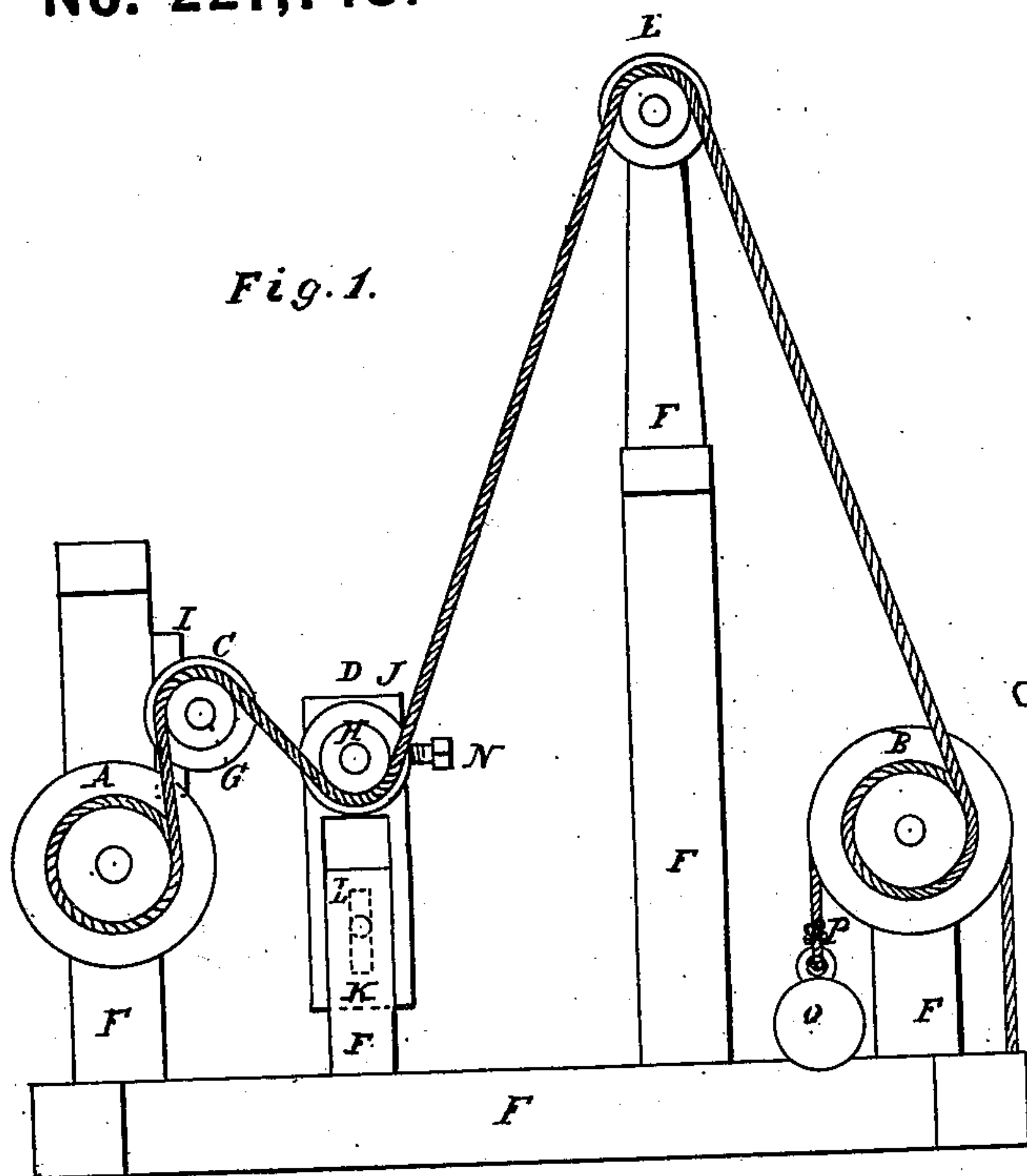


(No Model.)

M. DONNELLY.
Guide for Winding Cord or Rope.

No. 227,743.

Patented May 18, 1880.



Witnesses.
R. Backen
M. W. Costello.

Inventor.
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UNITED STATES PATENT OFFICE.

MICHAEL DONNELLY, OF BOSTON, MASSACHUSETTS.

GUIDE FOR WINDING CORD OR ROPE.

SPECIFICATION forming part of Letters Patent No. 227,743, dated May 18, 1880.

Application filed March 25, 1880. (No model.)

To all whom it may concern:

Be it known that I, MICHAEL DONNELLY, of Boston, Suffolk county, and State of Massachusetts, have invented a new and useful Improvement in Guides for Winding Rope or Cord upon the Winding-Drum, of which the following is a specification.

This invention relates to improvements in roller-guides for winding the cord or rope in proper successive courses upon the horizontal winding-drum by employment of lateral sliding grooved rollers or pulleys, over and under which the cord or rope passes to the drum; and the invention consists in the combination, with the horizontal and parallel and straight shaft carrying the roller over which the rope passes, of a horizontally-adjustable curved shaft carrying the roller under which the rope passes. By these means the lateral travel of the guide-rollers is more readily and accurately adjusted to the winding-drum, so as to wind the rope or cord with more perfectness in proper successive courses upon the drum than with the devices now or heretofore used for the purpose.

In the annexed drawings, forming part of this specification, Figure 1 represents a central longitudinal vertical section of the guide-rollers and winding-drum according to my invention. Fig. 2 is a top view of the same; and Fig. 3 is a vertical cross-section taken through the bearing-boxes of the curved shaft of the same.

Similar letters of reference indicate corresponding parts in the several figures.

A represents the horizontal winding-drum upon which the cord or rope is wound, and B represents a drum from which the cord is unwound.

C, D, and E are guide-rollers employed for carrying the cord or rope from the one drum to the other.

F represents a frame, which is made suitably strong to combine the bearings of the drums and guide-rollers.

The roller C is arranged close above and in rear of the drum A, and the roller D in rear and lower than the roller C, and both are made to slide laterally upon their shafts G and H, which are both held stationary in their bearing-boxes I and J.

The roller E is located at a distance above and between the drum B and the roller D, and is held fixed centrally in lateral direction between its bearings, in which its shaft revolves.

All said rollers C, D, and E are properly grooved for guiding the cord or rope over their peripheries and directing the lateral travel of the rope.

The shaft G of the roller C is made straight and arranged parallel with the shaft of the drum A. Its boxes I I are secured permanently with those of the said drum.

The shaft H is made curved in horizontal direction, its central portion being lower than its ends, so that its roller D has to rise opposite the flanges of the drum A, and thereby cause and effect the ready proper lay of the rope, and prevent the crowding of the same on its return from the drum-flange in commencing a new course. The bearing-boxes J J of this shaft H are secured to vertical posts K K on the frame F; but said boxes are fitted and guided to slide closely on said posts up or down, so that the shaft H may be adjusted in its horizontal position proper, and with convenience and precision, and during operation to cause its roller D to guide the roller C and cause the proper winding of the rope on the drum. Said boxes J J have each a vertical slot, L, and through it a proper-headed screw, M, to secure the box permanently after being correctly adjusted. By means of set-screws N, employed in said boxes to secure the shaft H to them, said shaft is held from turning therein.

The drum B is held from winding loose by means of the friction-weight O and belt or rope P, or with any suitable friction device.

By means of having the curved shaft H provided with means for conveniently adjusting the same in horizontal direction during operation the great difficulty to cause the roller D to travel and cause the winding properly and accurately is avoided.

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

1. In guides for winding cord or rope upon the winding-drum, the combination and construction of the drum A, and the guide-rollers

C, D, and E, and the shaft G with the adjustable curved shaft H and its sliding boxes J J, substantially as and for the purpose herein set forth.

- 5 2. The curved shaft H, as constructed, its boxes J J, with the slots L, the screws M and N, and the posts L, in combination with the grooved guide-rollers C, D, and E, the shaft G, and the frame F, with the drums A and B,

substantially as and for the purpose herein described and shown.

In witness whereof I hereunto set my hand this 16th day of March, 1880.

MICHAEL DONNELLY.

In presence of—

R. BOEKLEN,

M. W. COSTELLO.