

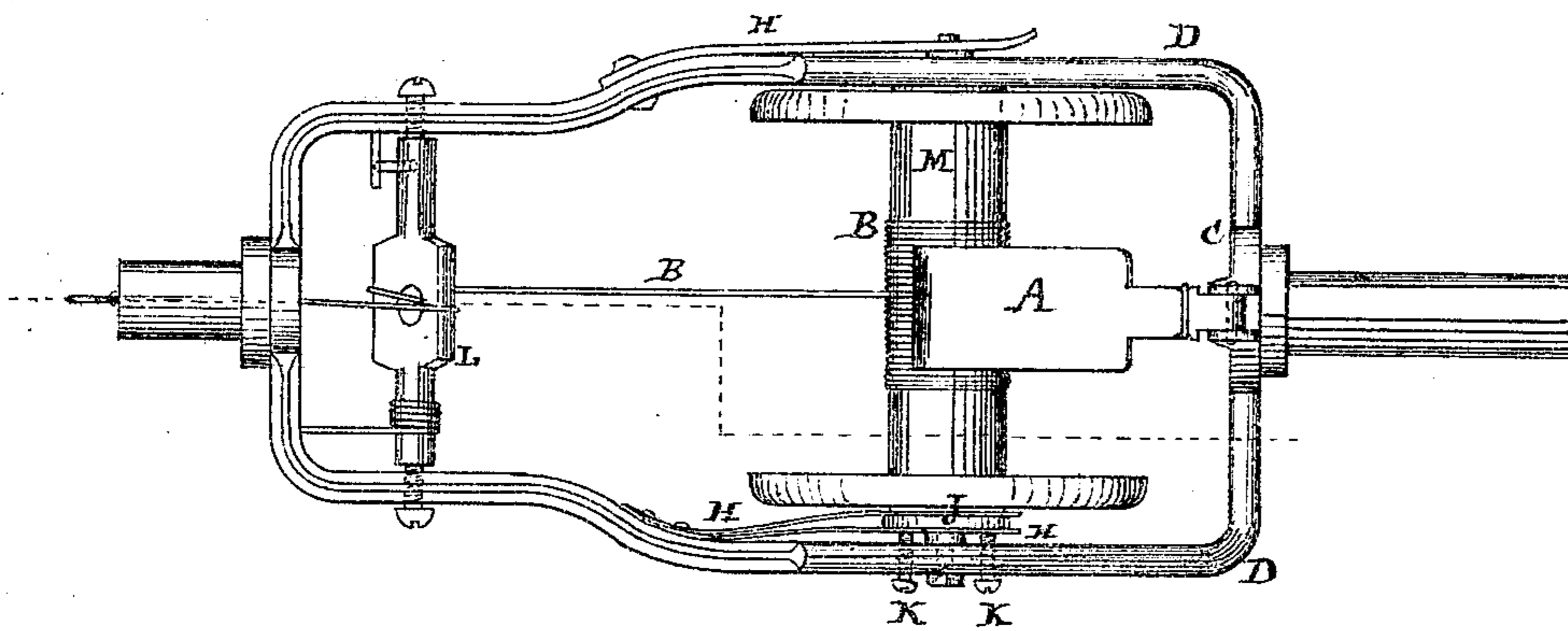
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Improvement in Tension Devices for Fliers of Rope-Machines.

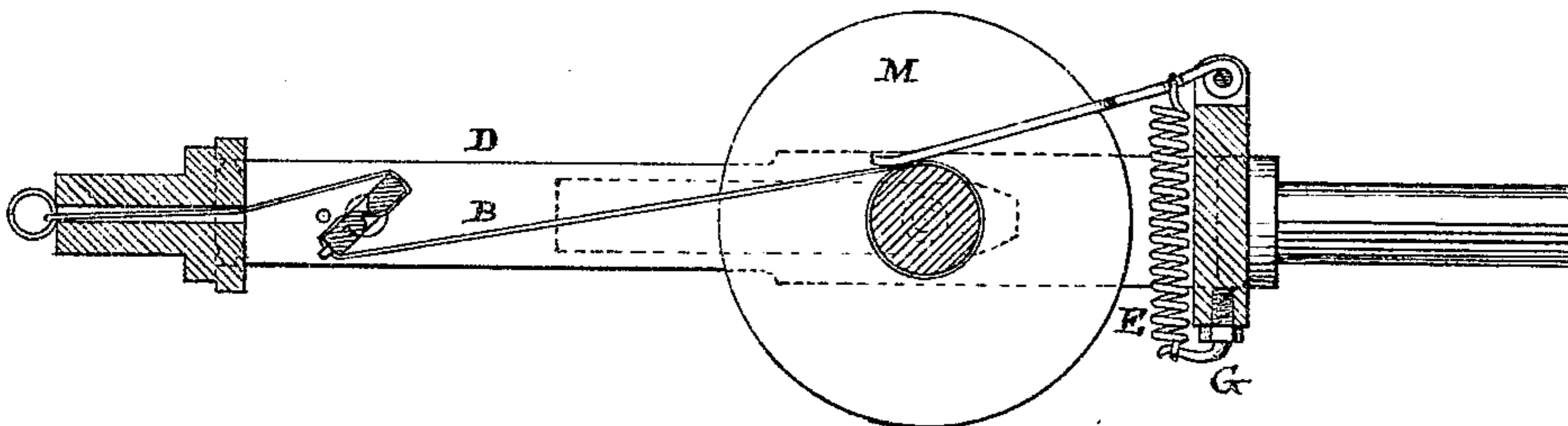
No. 126,483.

Patented May 7, 1872.

*Fig. 1.*



*Fig. 2.*



Witnesses:

T. C. Brecht.  
G. S. Coleman

H. Perkins — Inventor:  
By his Atty —  
S. S. Reigart

# UNITED STATES PATENT OFFICE.

HOWARD PERKINS, OF MANSFIELD, MASSACHUSETTS.

## IMPROVEMENT IN TENSION DEVICES FOR FLIERS OF ROPE-MACHINES.

Specification forming part of Letters Patent No. 126,483, dated May 7, 1872.

*To all whom it may concern:*

Be it known that I, HOWARD PERKINS, of Mansfield, Bristol county, State of Massachusetts, have invented new and useful "Improvements in Tension Devices for Fliers of Rope and Cordage Machines;" and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification, in which—

Figure 1 represents a top view of the flier with its improvements. Fig. 2 is a side longitudinal section of the same.

The nature of my invention consists in the pad, spiral spring, screw-adjusting hook, springs at the ends of the bobbin, gum-elastic cushion between the springs, set-screws through the flier, all as arranged, constructed, and operated. The object of my invention is to regulate the tension of the cord as it is being twisted and wound from off the bobbin.

A represents the pad, which presses upon the yarn B on the bobbin M, the pad being attached or hinged upon a slotted projection, C of the flier D. A spiral spring, E, is attached to the rear of the pad, and to a screw-

adjusting hook, G, beneath, so as to draw the pad downward and make the tension harder or softer by increasing or lessening the pressure of the pad upon the yarn as the screw-adjusting hook G is lengthened or shortened. At the ends of the bobbin M are flat steel springs H H, with a gum-elastic cushion, J, between two of the springs H, having set-screws K K passing through the flier D to regulate the tension. L is the wing, through which the cord passes out through the end of the flier D.

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

The pad A (which presses on the yarn B) with its spiral spring E and screw-adjusting hook G, to regulate the tension, as described; also, the springs H H H at the ends of the bobbin M, with the gum-elastic cushion J between them, and the set-screws K K through the flier D, to regulate the tension, when arranged, constructed, and operating as herein described.

HOWARD PERKINS.

Witnesses:

J. FRANKLIN REIGART,  
EDM. F. BROWN.