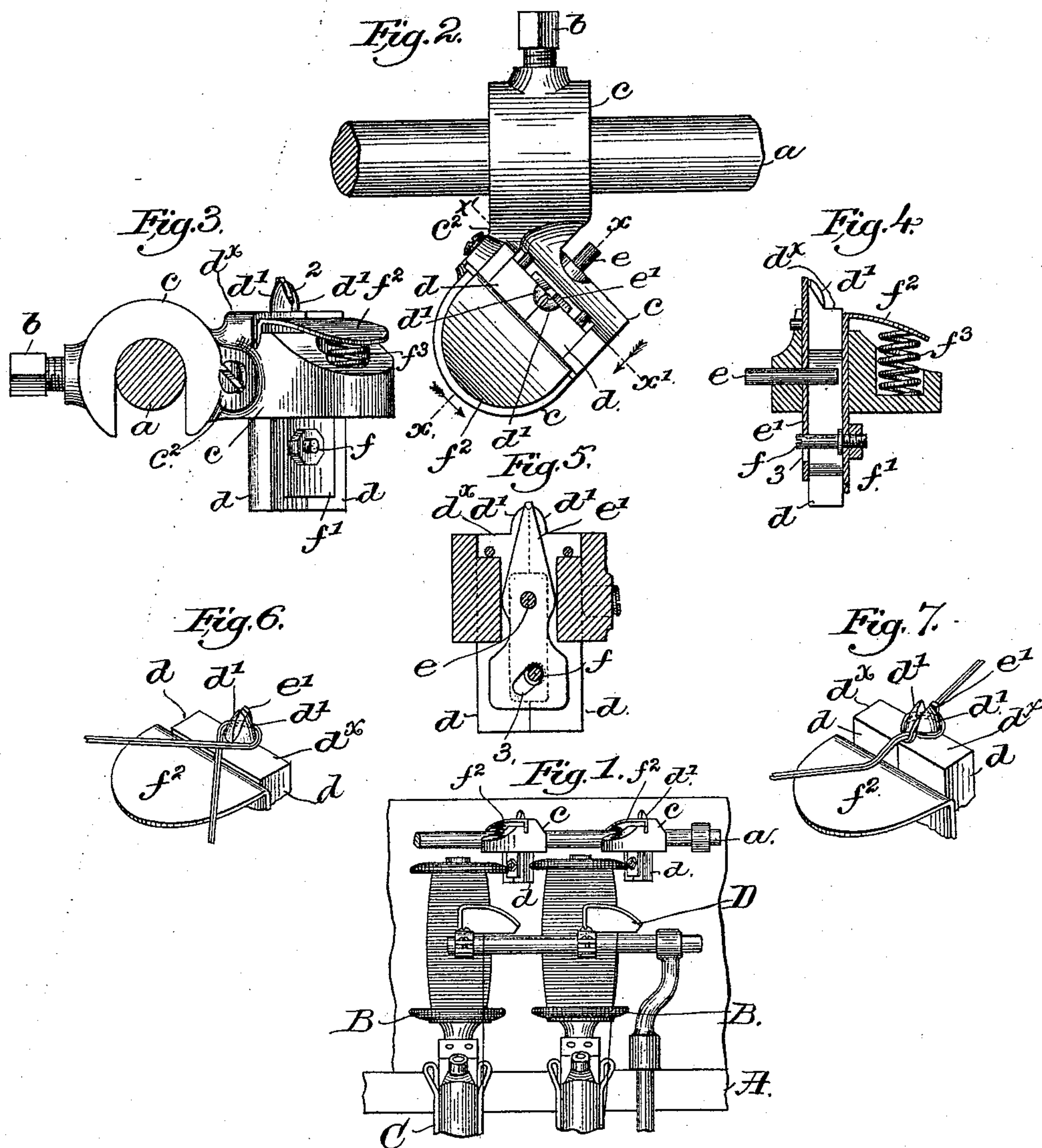


(No Model.)

T. McVEIGH.
KNOT TYING DEVICE.

No. 498,185.

Patented May 23, 1893.



Witnesses,
Louis N. Howell
Marion H. Ewing

Inventor,
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UNITED STATES PATENT OFFICE.

THOMAS McVEIGH, OF GROSVENOR DALE, CONNECTICUT, ASSIGNOR OF ONE-HALF TO GEORGE DRAPER & SONS, OF HOPE DALE, MASSACHUSETTS.

KNOT-TYING DEVICE.

SPECIFICATION forming part of Letters Patent No. 498,185, dated May 23, 1893.

Application filed October 24, 1892. Serial No. 449,832. (No model.)

To all whom it may concern:

Be it known that I, THOMAS McVEIGH, of Grosvenor Dale, county of Windham, State of Connecticut, have invented an Improvement in Knot-Tying Devices, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object the production of a simple, easily operated, and efficient knot tyer, it being especially applicable for use with spooling machines.

Figure 1, shows a portion of a spooling machine with my improved knot tyer in place. Fig. 2, on a larger scale shows one of my knot tyers in plan view, the rod supporting it being broken off; Fig. 3, a side elevation thereof; Fig. 4, a section in the line $x-x$, Fig. 2; Fig. 5, a section in the line $x'-x'$, Fig. 2; and Figs. 6 and 7, details of the different positions of the thread during the operation of tying a knot.

The frame A; spools B; bobbin holders C; and guides D; are and may be all as common in spooling machines, I having chosen herein to illustrate my invention as applied to a machine of that kind. The rod a , has adjustably connected to it by a suitable set screw b the body or frame c of the knot tyer. This frame is slotted for the reception of the shanks d of the knot-forming nibs d' having a thread receiving space 2, into which the operator may draw one part of the thread, the nibs holding the thread between them sufficiently hard to enable the looped part of the knot to be drawn up off the nibs, leaving the thread held by the nibs in the coil and making a hard knot. The shanks are provided with shoulders d^x sufficiently abrupt to form steps to determine the position of the thread to be tied and then coiled about the nibs as in Fig. 6.

At the rear side of the parts d , d' , I have pivoted at e a thread-cutter e' , its upper end working close to the rear sides of the nibs, so as to cut off very close to them the thread pinched and held between the contiguous

faces of the nibs. The shank of the cutter is slotted diagonally at 3 to receive a stud f extended from the shank f' of the cutter actuator f^2 , shown as an L-shaped plate, normally supported by a spring f^3 , so that the cutter normally closes the spaces at the rear of the nibs. The operator engaging the threads to be tied together, will, with one hand or finger hold said threads on the thread support f^2 and will press down on the support sufficiently to move the cutter away from the rear side of the opening between the nibs; and this done, the operator with his other hand will wrap the two threads about the nibs and cutter, and bring the threads so wrapped about the nibs, across the part of said threads lying on the support f^2 , and then the undermost portions of the said threads, the support being yet depressed, are lifted from the support and drawn snugly into the space between the nibs, when the operator will release the support, let the cutter cut off the free ends of the threads beyond the nibs, after which the operator, by lifting or pulling upwardly on the threads will cause the parts thereof previously wrapped about the nibs to be drawn up off the free ends of the nibs, and in so doing the nibs will hold between them the ends of the threads next to where the threads were cut off, as stated, and a hard knot will be tied, the knot being so close to the free ends of the thread as to scarcely show any free ends. For the greatest convenience, I have offset the frame c as at c^2 , so as to bring the support f^2 and the nibs and cutter into the most convenient position for the operator standing in front of the machine, the operator while tying the knot holding the spool by pressure thereon of his left hand.

I am aware that many different forms of knot tyers have been devised, but none, so far as I am aware, have ever been put into practical use on spooling machines.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a knot tyer, the stationary nibs hav-

ing a thread receiving space between them,
and a cutter arranged close to said nibs and
adapted to cross the said space, combined
with a cutter actuator having a finger rest,
5 substantially as described.

2. In a knot-tyer, the frame, the shanks
supported therein and provided with shoul-
ders having nibs, and a cutter arranged close
to said nibs, combined with a movable cutter-

actuator and spring to operate the actuator to
in one direction, substantially as described.

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

THOMAS McVEIGH.

Witnesses:

FRANK S. RICHMOND,
MARCUS A. COVELL.