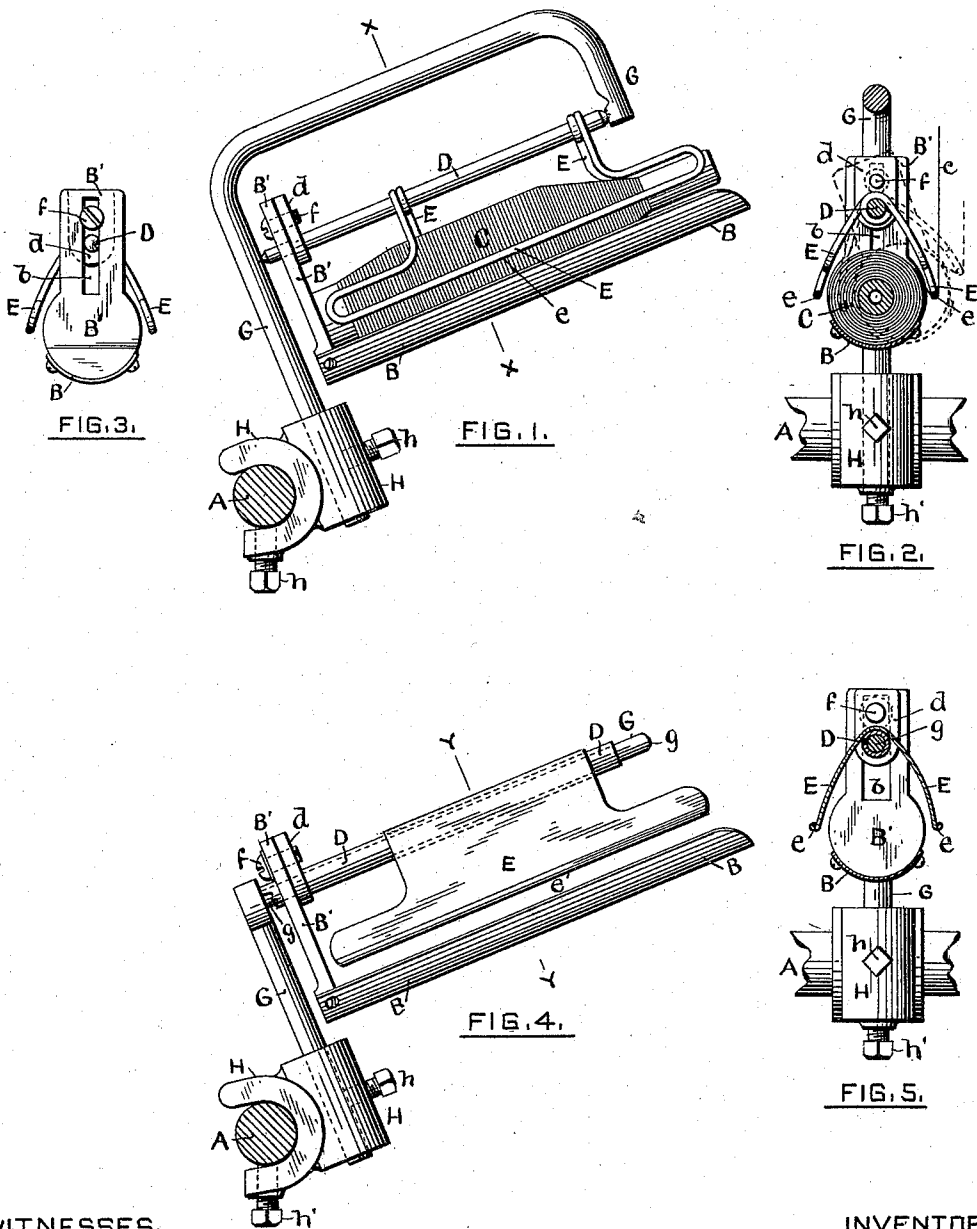


(No Model.)

N. H. EASTON.
BOBBIN HOLDER FOR SPOOLING MACHINES.

No. 470,558.

Patented Mar. 8, 1892.



WITNESSES.

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BOBBIN-HOLDER FOR SPOOLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 470,558, dated March 8, 1892.

Application filed January 11, 1892. Serial No. 417,610. (No model.)

To all whom it may concern:

Be it known that I, NICHOLAS HOWARD EASTON, of Central Falls, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Bobbin-Holders for Spooling-Machines; and I do hereby declare the following specification, taken in connection with the accompanying drawings, forming a part of the same, to be a description thereof.

This invention relates to a holder or support for a bobbin while the yarn is being removed therefrom and rewound upon a spool in a spooling-machine; and it consists in giving the holder proper a cradle form by connecting the trough or rest that receives the bobbin to a pivotal rod, providing such rod with a depending tension wing or wings, and pivoting the rod so that the trough and wings can simultaneously rock from side to side to relieve the yarn from undue strain.

The invention further consists in mounting the trough or rest upon the pivotal rod, so that the former can be adjusted to and from the latter to give more or less space between the upper edges of the trough and lower edges of the wings, so as normally to vary the tension on the yarn according to the size being spooled.

In the accompanying drawings, Figure 1 represents a side view of a bobbin holder or support embodying the invention with the bobbin in place therein. Fig. 2 shows a transverse section of the same on line *xx* of Fig. 1. Fig. 3 represents a view of the rear end of the holder proper. Fig. 4 shows a side view of a modified form of holder embodying the invention. Fig. 5 represents a transverse section of the same on line *YY*, Fig. 4.

The bobbin holders or supports are intended to be located side by side and to be mounted upon the spooling-machine in any suitable manner, as by being attached to a rod or bar *A*, Figs. 1 and 2, which runs longitudinally of the machine, each holder being placed in front of a spool, upon which the yarn of the bobbin is to be wound by the usual mechanism, all in a well-understood way.

Referring to the drawings, *B* is a trough or rest on which the bobbin *C* is loosely placed. This trough is secured at one end to a plate

B', (or may be integral therewith,) which plate is securely connected with a rod *D*, the said rod having attached thereto and depending therefrom a pair of tension-wings *E*, the whole forming a "cradle." As shown in Figs. 1 and 2, the wings are made of wire; but, as shown in Figs. 4 and 5, they may be made of sheet metal. The lower edges *e* of these wings are normally located at such a distance from the upper edges of the trough *B* as to give a proper tension to the yarn *c*, running from the bobbin, which yarn passes over the edge of one of said wings on its way to the spool. As the yarn can pass over but one of the wings at a time, either may be dispensed with, though both are preferably used, so that the yarn may be led out on either side of the trough *B*. As shown in Fig. 1, the ends of the rod *D* are pivoted in a frame *G*, so that the cradle can swing or rock in the frame, and said frame may be secured to the spooling-machine in any suitable manner, as such attachment forms no essential feature of the invention. In Figs. 1 and 2, however, the lower end of the frame is shown as adjustably secured to a block *H* by a set-screw *h*, and the block is attached to the machine by being secured by a set-screw *h'* to the rod *A*, which extends longitudinally of the machine.

From the foregoing it will be readily understood that as the rod *D* is pivoted upon the frame *G* the trough and tension-wings can rock simultaneously, so that any tendency to an undue strain upon the yarn will be relieved by an upward swinging of the parts, as shown by dotted lines in Fig. 2, and a breakage of the yarn be thereby prevented.

As fine yarns require less tension than coarse sizes, I prefer to mount the trough or rest *B* on the rod *D*, so that the former can be adjusted to and from the latter, (and consequently to and from the wings *E*), and this may be done by furnishing the rod with a rigid finger *d*, providing the plate *B'* with a slot *b*, Fig. 3, and securing the plate to the finger by a screw *f*, passing through the slot and threaded into the finger, though the finger may also have a slot and the screw be threaded into the plate, as will be readily understood. By such an adjustment not only can the normal tension of the yarn be desir-

ably varied, but the parallelism of the lower edges of the wings and upper edges of the trough can always be preserved.

In place of making the rod D solid and pivoting its ends on the frame G, as hereinbefore described, the construction shown in Figs. 4 and 5 may be employed, where the rod D is made hollow or tubular and is slid upon the arm *g* of the frame G, the holder proper or cradle being retained in proper position by gravity.

In practice I have found my improved bobbin-holder to give better results than that form in which the bobbin trough or rest is stationary and the tension-wings are pivoted to swing with relation thereto.

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

1. In a bobbin holder or support, the combination of the pivotal rod furnished with a

depending tension wing or wings E, the trough or rest B, mounted upon said rod for receiving the bobbin, a frame in which said rod is pivoted to allow the trough and wings to rock, and means for securing the frame to the machine, substantially as set forth.

2. The combination of the pivotal rod furnished with a depending tension wing or wings E, the trough or rest B, adjustably mounted on said rod, whereby the trough can be fixed at different distances from the rod to vary the normal tension on the yarn, a frame on which said rod is pivoted to allow the trough and tension-wings to rock, and means for securing the frame to the machine, substantially as set forth.

NICHOLAS HOWARD EASTON.

Witnesses:

EDSON SALISBURY JONES,
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