

(No Model.)

H. LAWRENCE.
SPOOLER GUIDE.

No. 578,247.

Patented Mar. 2, 1897.

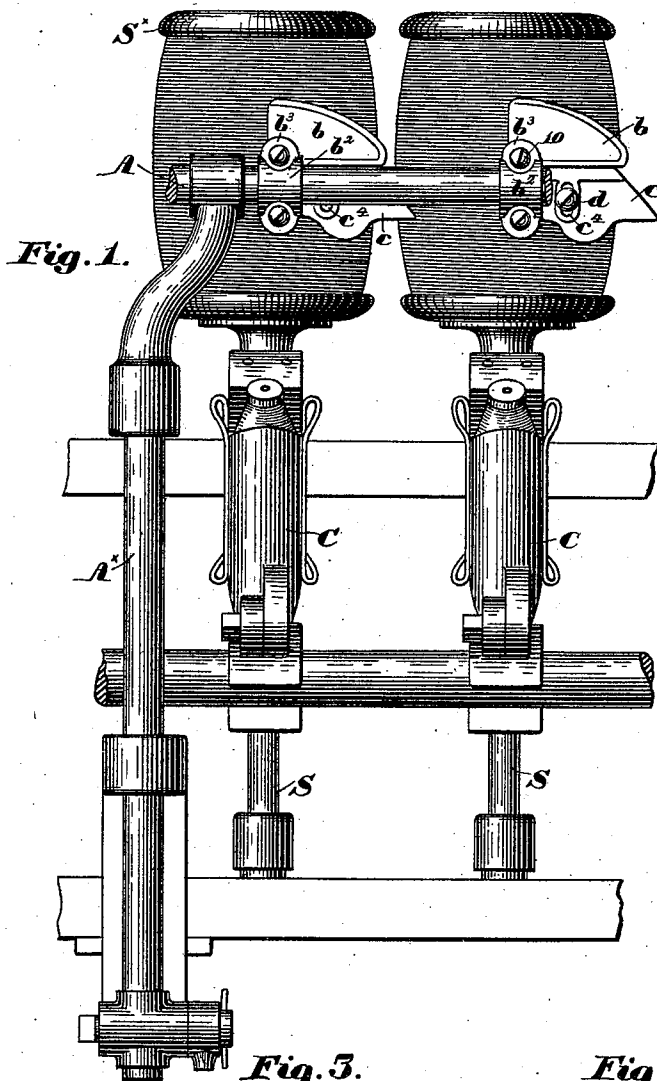


Fig. 2.

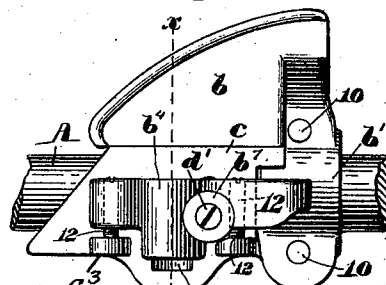
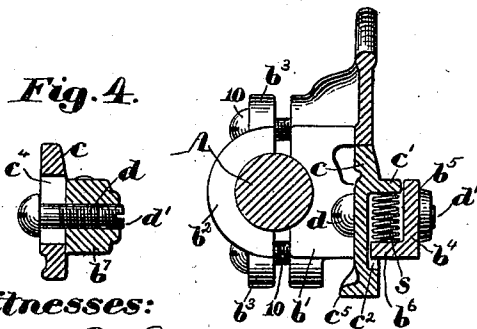


Fig. 4.



Witnesses:

Walter C. Lombard.
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UNITED STATES PATENT OFFICE.

HENRY LAWRENCE, OF MILFORD, MASSACHUSETTS, ASSIGNOR TO THE HOPE-DALE MACHINE COMPANY, OF HOPEDALE, MASSACHUSETTS.

SPOOLER-GUIDE.

SPECIFICATION forming part of Letters Patent No. 578,247, dated March 2, 1897.

Application filed September 28, 1896. Serial No. 607,168. (No model.)

To all whom it may concern:

Be it known that I, HENRY LAWRENCE, of Milford, in the county of Worcester and State of Massachusetts, have invented an Improvement in Spooler-Guides, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

10 This invention has for its object the production of an improved spooler-guide whereby the blades may be readily separated to temporarily widen the slot or space between the blades, whereby if the guide becomes clogged, 15 as frequently happens, the obstruction can be readily removed by the attendant. One of the blades is mounted to tip and is yieldingly held in normal position relatively to the other blade, and means are provided for adjusting 20 the distance between the edges of the blades. The mounting of the movable plate in such a manner that it will tip prevents the tampering with the guide in such manner as to leave the opening wide enough at all times to permit a bunch on the yarn to pass through without breakage of the yarn. If an attempt is 25 made to wedge apart the blades, the movable one will tip on its support, closing the outer end and becoming inoperative.

30 Figure 1, in front elevation, represents a sufficient portion of a spooler to be understood with my invention applied thereto. Fig. 2 is an enlarged rear side view of a spooler-guide embodying my invention. Fig. 3 is a vertical section thereof on the line $x x$, Fig. 2, 35 looking toward the right; and Fig. 4 is a sectional detail of the pivotal sliding connection between the blades.

40 The bobbin or cop holders C, the rotatable spindles S, upon which the spools S^x are mounted, the guide support or shaft A, upon which the guides are secured, and the standards A^x , only one of which is shown in Fig. 1, are and may be of usual and well-known 45 construction.

50 The guide comprises, essentially, two blades $b c$, the upper blade b , as herein shown, having a lateral offset portion or base b' , in which is a recess to partially embrace the supporting shaft or rod A and forming one member of a clamp, the other member of the clamp

consisting of a plate b^2 , recessed to embrace the shaft A and having ears b^3 , through which clamp-screws 10 are extended into threaded holes in the member b' .

By tightening or loosening the screws the guide as a whole is firmly adjusted or moved upon the supporting-shaft.

The blade b has a foot b^4 , extended from the base b' below and behind the blade, provided on its inner side with a socket b^5 , open at its top and inner side, as shown in Fig. 3, the foot having a threaded hole at each side of the socket to receive adjusting-screws 12, the lower ends of which project more or less below the foot, as shown in Fig. 2.

The blade c has on its rear face and about midway between its ends a lug c' to enter loosely the socket b^5 and bear upon a spring s therein, Fig. 3, said spring resting on the bottom b^6 of the socket, the said bottom projecting into a vertical groove or depression c^2 in the face of the blade c . Ears c^3 extend from the said blade and are held against the adjusting-screws 12 by the expansive force of the spring s , the position of the screws thus determining the distance between the edges of the two blades b and c .

The blade c is vertically slotted at c^4 to receive the shank of a screw d , (see Fig. 4,) which is firmly screwed into a boss b^7 on the foot b^4 , thereby connecting the two blades, yet permitting bodily movement of the blade c toward and away from the blade b , and also movement of blade c on d as a pivot, a separate screw d' in the boss acting as a check to prevent loosening of screw d by jarring.

A lip c^x on the blade c engages the foot b^4 and limits the downward movement of the movable blade, which latter on its front side near its lower edge is provided with a finger-piece c^5 .

If the guide becomes clogged, as it frequently does, the attendant grasps the finger-piece c^5 and draws the blade c down, compressing the spring s and separating the blade edges, so that with the free hand the attendant can remove the obstruction from between the blades.

When the finger-piece is released, the spring expands and automatically returns the movable blade to operative position, controlled

by the adjustment of the screws 12, without any further attention. If a wedge be inserted between the blades at their inner ends, so as to be unnoticed, the movable blade will tip on its yielding support, closing its outer end, so that the guide will be inoperative, and such tipping of the movable blade prevents tampering with the guide in the manner described.

My invention is not restricted to the precise construction and arrangement shown, as the same may be varied without departing from the spirit and scope of my invention.

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

1. A spooler-guide, comprising a fixed blade having a laterally-extended foot substantially parallel thereto, a movable blade yieldingly mounted thereon substantially midway between the ends thereof and adapted to tip, and independent adjustable means to act upon the movable blade near its ends and normally maintain the blades a predetermined distance apart, substantially as described.

2. A spooler-guide, comprising a fixed blade having a laterally-extended foot, a movable blade yieldingly mounted thereon at a point substantially midway between the ends of the blade, and a slot-and-pin connection between said movable blade and the foot, substantially as described.

3. A spooler-guide, comprising a fixed blade having a base to form a clamp member, a cooperating adjustable clamp member, a mov-

able blade connected with the fixed blade, and a spring to act upon the movable blade at a point substantially midway between the ends thereof and to normally move it toward the fixed blade, whereby the movable blade may tip about its yielding support, substantially as described.

4. A spooler-guide, comprising a fixed blade, an attaching-clamp therefor, said blade having a laterally-extended foot provided with a vertical socket, a movable blade mounted on said foot and having a projection between its ends to enter said socket, a spring in the socket to act upon the projection and normally raise the movable blade, permitting the latter to tip, and adjustable stops carried by one blade to cooperate with lugs on the other blade, to regulate the normal distance between the blades, substantially as described.

5. A spooler-guide, comprising a blade having a laterally-extended foot, a tipping, spring-controlled blade mounted between its ends on the foot, and movable toward and from its fellow blade, said spring-controlled blade and foot being connected by a headed screw on one and extended through a slot in the other, and means adjacent both ends of and to regulate the normal distance between the blades, substantially as described.

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

HENRY LAWRENCE.

Witnesses:

GEORGE OTIS DRAPER,
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