(No Model.)

S. M. HAMBLIN & W. H. GOLDSMITH.

SPOOL HOLDER FOR SPOOLING MACHINES.

No. 421,399. Patented Feb. 18, 1890.

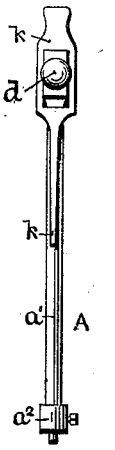

FIG. 1.

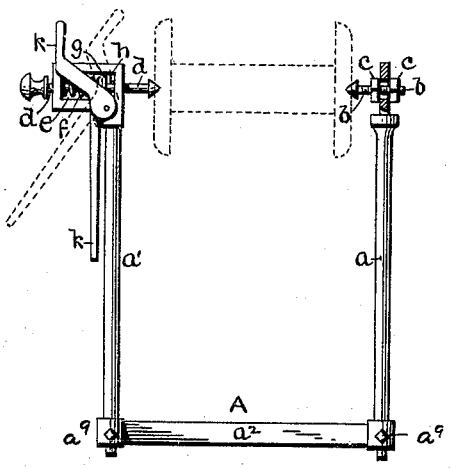

FIG. 2.

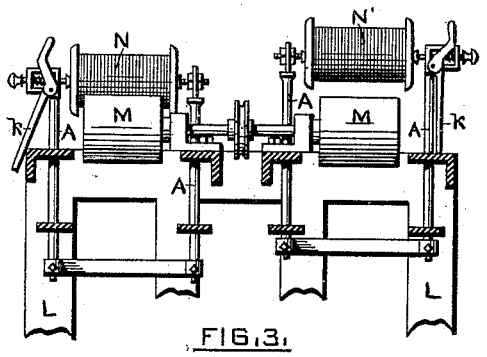

FIG. 3.

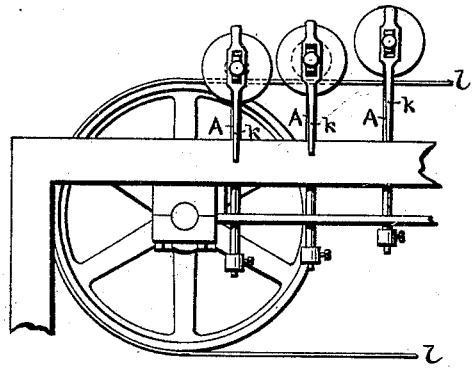

FIG 4.

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SPOOL-HOLDER FOR SPOOLING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 421,399, dated February 18, 1890.

Application filed May 24, 1889. Serial No. 311,928. (No model.)

To all whom it may concern:

Be it known that we, STEPHEN M. HAMBLIN, of New Bedford, in the county of Bristol and State of Massachusetts, and WILLIAM H. GOLDSMITH, of Fall River, in the county of Bristol and State of Massachusetts, have jointly invented a new and useful Improvement in Spool-Holders for Spooling-Machines; and we 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 device for holding a spool or bobbin while being wound by a "spooling-machine;" and it consists in certain features of construction and arrangement hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents an end view of the spool-holder. Fig. 2 shows a side view of the same. Fig. 3 represents in transverse section a portion of the frame of a spooling-machine in which "drums" are employed to wind the spools, with the spool-holder combined therewith. Fig. 4 shows a side view of a portion of the frame of a spooling-machine, in which an endless band is employed to wind the spools, with the spool-holder combined therewith.

A is the spool or bobbin holder, which is in the form of a U-shaped frame having two upright arms a a' and a cross-bar a^2, forming a part of the arms or secured thereto in any preferred manner. The arm a of the holder is provided at its upper end with a rod or stud b, which is preferably made adjustable on the arm both horizontally and vertically, although it may be immovably fixed in position thereon. As shown, the rear portion of the rod is screw-threaded, is passed through a vertical slot in the arm, and is secured in position by two nuts c; but if only a horizontal adjustment is to be provided for the rod may be threaded through the arm and one nut be employed to hold it in place, as will be readily understood. The arm a' is furnished at its upper end with a rod or spindle d, which is loosely mounted in the arm so it can move in and out. Located within a slot e in said arm and surrounding the rod d is a spring f, which bears at one end against the arm and at the other against a collar g, which may be secured to the spindle or may bear against a pin h, passing through the same. These rods b d receive the spool and form the bearings upon which it turns, and the inner ends of the rods are preferably made conical, so as accurately to center the spool. The spring f presses the rod d into contact with the spool, and said rod may be prevented from turning in any preferred manner, as by the ends of the pin h coming in contact with the arm a'. By pulling back the rod d the spool can be quickly and conveniently placed in or be removed from the frame or holder.

A trip-latch k is pivoted to one of the arms, as a', of the frame or holder, so that when swung inwardly into a position to rest upon the frame of the machine it will retain the frame or holder in an elevated position where the spool will be out of contact with the winding mechanism, and where the spool can be more conveniently inserted into and removed from the holder.

In Fig. 3 the spool-holder is shown as applied to a spooling-machine of the variety in which the winding mechanism is in the form of revolving drums, into contact with which the spools are brought. L is a portion of the frame of the machine, and M are the drums. The spool-holder is arranged with its arms a a' laterally outlying the ends of the drums, and the holder is intended to slide vertically in the frame of the machine, being directed by any suitable means of guiding, as by passing the arms a a' through holes or slots in the rails of the frame. In order that the holder may be the more conveniently applied to the frame, the cross-bar a^2 is preferably detachably secured to the arms, as by set-screws a^9. This arrangement also enables the arms to be adjusted vertically with relation to each other, if desired. The holder shown at the left hand in the figure is near its lowest position, the spool N therein being only partially wound, while the holder shown at the right hand is supported in an elevated position by the latch k, the lower end of which

rests upon the top rail of the machine, so as to enable the full spool N′ to be conveniently removed and a new spool to be inserted. When a new spool has been introduced into the holder, the latch *k* is tripped, thereby allowing the holder and its spool to descend, so that the latter may come into contact with the drums.

In Fig. 4 the spool-holder is shown as applied to a spooling-machine in which a traveling endless band *l* is the winding mechanism.

No claim is herein made to the drum-winding or the band-winding mechanism, as such mechanisms form the subjects of other applications for patents, serially numbered 311,927 and 311,929, respectively.

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

1. A spool or bobbin holder composed of two connected arms *a a′*, one of which is provided with a rod or stud *b*, and the other of which is furnished with an oppositely-located sliding rod or spindle *d*, for supporting in the holder a spool or bobbin to be wound, and a trip-latch attached to the holder, substantially as set forth.

2. A spool or bobbin holder composed of two connected arms *a a′*, one of which is provided with a rod or stud *b*, having a conical end, and the other of which is furnished with an oppositely-located sliding rod or spindle *d*, having a conical end for supporting in the holder a spool or bobbin to be wound, and a trip-latch attached to the holder, substantially as set forth.

3. A spool or bobbin holder composed of two connected arms *a a′*, one of which is provided with an adjustable rod or stud *b*, and the other of which is furnished with a sliding rod or spindle *d*, and a spring for pressing the sliding rod toward its fellow, and a trip-latch attached to the holder, substantially as and for the purposes specified.

4. A spool or bobbin holder composed of two connected arms *a a′*, the former provided with a stud *b*, and the latter with a non-revoluble sliding rod or spindle *d*, and a spring for pressing the sliding rod toward its fellow, and a trip-latch attached to the holder, substantially as set forth.

5. A spool or bobbin holder composed of two arms *a a′*, connected by a detachable cross-bar a^2 and furnished with oppositely-located spool-holding rods *b d*, and a trip-latch attached to the holder, substantially as set forth.

6. The combination, with a frame of a spool-winding machine, of a spool-holder composed of two connected arms *a a′*, mounted in the frame to slide to and from the winding mechanism and having the oppositely-located spool-supporting rods *b d*, and a trip-latch for holding the frame in an elevated position, substantially as set forth.

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