A. H. SAWTELL.

BOBBIN HOLDER.

APPLICATION FILED DEC. 1, 1917.

1,260,069. Patented Mar. 19, 1918.

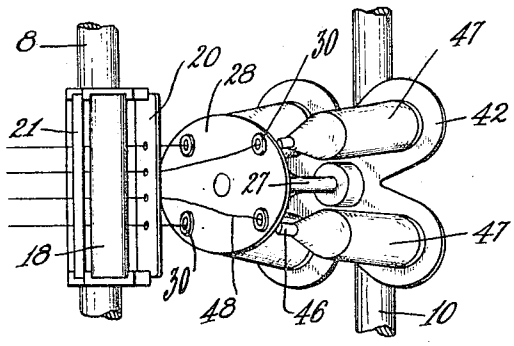


Fig. 1.

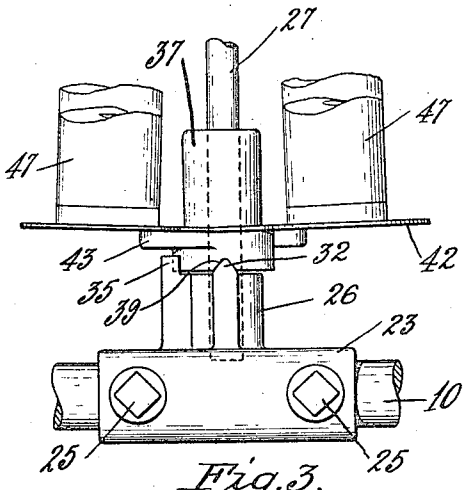


Fig. 3.

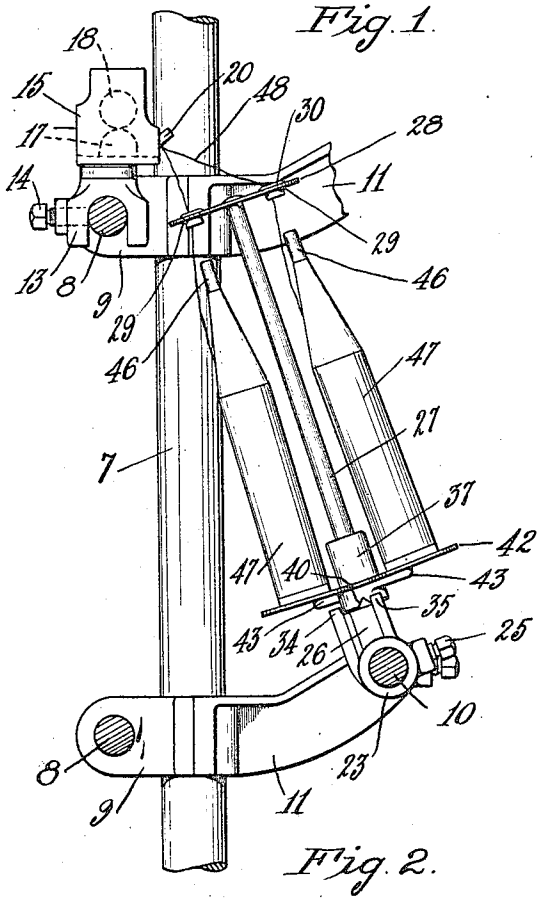


Fig. 2.

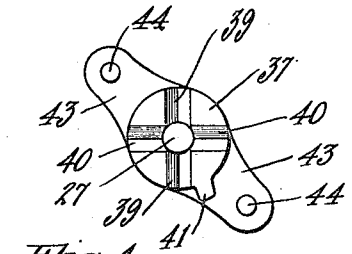


Fig. 4.

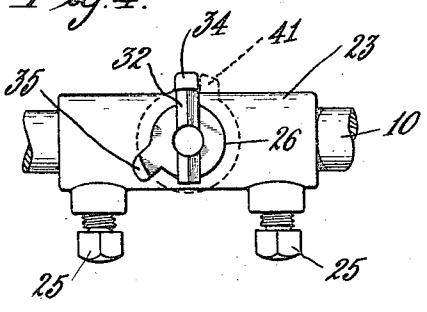


Fig. 5.

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BOBBIN-HOLDER.

1,260,069. Specification of Letters Patent. Patented Mar. 19, 1918.

Application filed December 1, 1917. Serial No. 204,942.

To all whom it may concern:

Be it known that I, ALBERT H. SAWTELL, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Bobbin-Holders, of which the following is a specification.

My invention relates to holders for bobbins, spools, cops and the like for use upon creels and similar textile frames.

The essential objects of my invention are to facilitate doffing the bobbins; to enable the bobbin carrier to be readily adjusted at predetermined points in a circular path; to prevent accidental excessive circular movement of the carrier; to direct delivery of the threads or yarn from the bobbins; and to attain these ends in an easily operable and inexpensive structure.

My invention consists essentially, therefore, in the means and mechanism for producing the results above specified substantially as hereinafter claimed.

In the accompanying drawings illustrating the principle of this invention and the best mode now known to me of applying that principle,

Figures 1 and 2 are a top plan view and side elevation of my holder applied to the creel showing parts of the latter broken away,

Fig. 3, a rear elevation of the lower portion of the holder,

Fig. 4, a bottom plan view of the bearing face of the carrier, and

Fig. 5, a plan view of the support upon which the carrier rests, showing in broken lines a relative position of the carrier sleeve thereon.

Like reference characters indicate like parts throughout the views.

In the construction illustrated, 7 represents a portion of the uprights of a creel or similar textile frame, 8 the guide bars carried by the forwardly directed arms or brackets 9; and 10 bars for supporting the bobbin holders, carried by the rearwardly directed upturned arms or brackets 11. It will be understood that the horizontal bars 8 are, as usual, arranged in a vertical series, and the same is true of the bars 10. Upon the guide bars 8 are located the thread controllers, if such devices are desired to be employed. One of these is herein shown and may be of any usual or desired construction. In detail it comprises a base 13 clamped to the bar by a screw 14. The body or frame 15 supported on the base carries a roll or abutment 17 upon which rests the roller 18, between which members the threads pass. 20 and 21 are the thread guide plates through whose perforations the threads travel.

Referring now to the bobbin holders arranged at intervals on the creel, a sleeve 23, loose on the bar 10, is engaged therewith by clamping screws 25 in the sleeve engaging the bar, and is thus axially adjustable. Integral with an intermediate portion of this sleeve is an upwardly directed sleeve or tubular post 26, loosely journaled in which is a rod 27, having rigid with its top a thin metallic disk 28 with an annular series of marginal perforations 29 in which are seated porcelain anti friction eyelets 30. The latter while not essential are advantageous as anti friction elements for threads passing therethrough.

The top end face of the post 26 is provided with a diametrically disposed rib 32, V-shaped in cross section. Integral with the post, extending laterally therefrom, and projecting to a plane above the horizontal plane of the rib 32, are two stop projections 34 and 35 respectively. The projection 34 is located in alinement with the rib and at the front of the post; while the projection 35 is located near the rear of the post and at one side of the rib.

Coöperating with the post and resting thereon is the carrier member comprising a sleeve 37 fast to the rod 27 having radially or diametrically disposed grooves 39 and 40 arranged in its lower end face. They have a V shaped cross sectional form to correspond with the cross sectional contour of the rib 32 with which they normally register respectively when the parts are at rest. A lateral stop lug 41 on the lower end of the sleeve is adapted to coöperate with the projections 34 and 35. Attached to the sleeve is a plate 42. This rests on lateral lugs 43 upon an intermediate portion of the sleeve 37 and is made fast by attaching pins, screws or rivets 44 in the lugs. The lugs may be integral with the plate 42. Fastened to or integral with the carrier plate 42 are an annular series of spindles 46 in the present instance four, with their upper ends below and in alinement with the several perforations 29 of the disk 28. Loose on the spindles are shown bobbins 47,

supplying the threads 48 which pass through the controller, or upon the guide rod 8 when a controller is absent. It will be understood that these threads are drawn by the beam, spindle, or other winding agent to which they lead.

The operation of the device is as follows. When the supply upon a bobbin is exhausted or for any reason it is desired to doff a front bobbin the carrier is manually given a quarter turn which causes the groove 39 to be evacuated by the rib 32, and the slot 40 to receive the rib. The inclined faces of the rib and grooves assist in inducing the engagement and disengagement of these members as the carrier is turned. The described fractional rotation of the carrier places a bobbin in a more accessible position. The operation may be repeated, and the rotation may be in either direction. It is not desirable that the carrier be rotated a complete revolution in either direction, lest the threads 48 become crossed between the disk 28 and the controller. This excessive rotation is prevented by the contact of the stop lug 41 with either the projection 34 or 35.

I claim:—

1. In a bobbin-holder, the combination with the support of a revoluble carrier pivotally seated upon the support and movable to and from the same, means upon the support coöperating with the carrier for reseating the carrier during its rotary movement, and means whereby but partial rotation of the carrier relatively to the support is permitted.

2. In a bobbin-holder, the combination of a support, a rib on the support, and a revoluble carrier mounted upon the support provided with radial channels in its under face adapted to successively receive the rib and means whereby but partial rotation of the carrier relatively to the support is permitted.

3. In a bobbin-holder, the combination with a support, of a rib upon the support, a rod journaled in the support, a sleeve fast to the rod resting on the support and provided with radial channels in its under face adapted to receive the rib, and a carrier plate on the sleeve, and means whereby but partial rotation of the carrier relatively to the support is permitted.

4. In a bobbin-holder, the combination of a support, a rib on the support, a revoluble carrier upon the support provided with radial channels in its under face adapted to receive the rib and means upon the support coöperating with the carrier for locking the carrier against a complete rotation.

5. In a bobbin-holder, the combination of a support, a rib on the support, a revoluble carrier upon the support provided with radial channels for the rib, a lug upon the carrier, and projections on the support in the path of the lug, whereby but partial rotation of the carrier relative to the support is permitted.

In testimony whereof I have affixed my signature.

ALBERT H. SAWTELL.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."