A. E. RHOADES.

BOBBIN HOLDER.

APPLICATION FILED JULY 12, 1911.

1,026,603. Patented May 14, 1912.

Fig. 1.

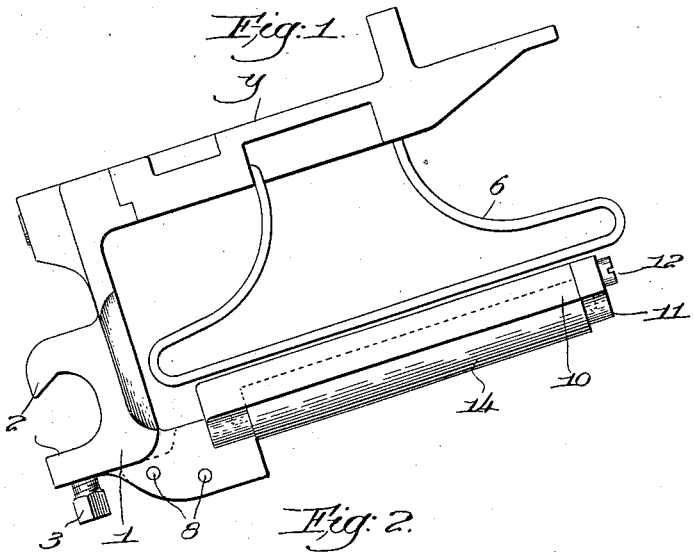


Fig. 2.

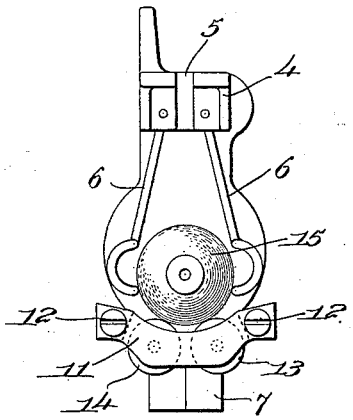
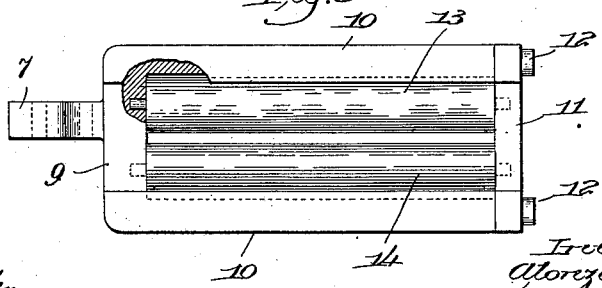


Fig. 3.



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UNITED STATES PATENT OFFICE.

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BOBBIN-HOLDER.

1,026,603. Specification of Letters Patent. Patented May 14, 1912.

Application filed July 12, 1911. Serial No. 638,079.

To all whom it may concern:

Be it known that I, ALONZO E. RHOADES, a citizen of the United States, residing at Hopedale, county of Worcester, State of Massachusetts, have invented an Improvement in Bobbin-Holders, of which the following description, in connection with the accompanying drawing, is a specification, like characters on the drawing representing like parts.

This invention relates to the bobbin holder of spooling machines of the general type illustrated; for example, in U. S. Patent No. 953,294, granted March 29, 1910, wherein the bobbins are sustained in bobbin holders arranged in rows, the thread or yarn leading upward from each bobbin to a reciprocating thread guide which lays the thread upon the spool. In such an apparatus the bobbin lies upon the rest of the holder, retained thereon by swinging side guards which depend from an overhanging arm, and for side lead the thread is carried from the bobbin under a guard and then upward, imparting the desired tension to the thread, but if the thread is fine and requires a minimum tension the so-called top lead is adopted; that is, the thread is led directly upward through a longitudinal slot to an overhanging arm of the bobbin holder. The bobbin lying upon the rest of the bobbin holder, or as it is sometimes termed in the pan of the holder, there is a considerable friction between the yarn periphery of the bobbin and the rest as the bobbin revolves upon the drawing off of the thread or yarn. This friction varies according to the amount of yarn on the bobbin, and consequently varies as the yarn is drawn off from the bobbin. This friction, both because of its amount and its variable character, has been found to interfere with the desired operation of the spooler, especially in connection with fine and delicate yarn.

The present invention has for its object the production of novel and effective means for remedying this defect, and provides a rest for the bobbin which presents a traveling or movable surface as a roll periphery to support the bobbin to move in engagement and simultaneously with the arm periphery of the bobbin.

The novel features of the invention will be described in the subjoined specification, and particularly pointed out in following claim.

The drawings present a preferred form of device embodying the invention.

In the drawings Figure 1 is a side elevation of a bobbin holder embodying this invention. Fig. 2 is a front elevation of the bobbin holder. Fig. 3 is a top plan view of the rest with the other parts of the bobbin holder disconnected therefrom.

The bobbin holder comprises a bracket 1 having a jaw 2 to embrace the supporting rod in the spooler upon which the bobbin holder is mounted and to which it is secured in place by the set screw 3. The bracket 1 presents an upwardly projecting and overhanging arm 4 having a slot or guideway 5. In the overhanging arm swinging side guards 6 are pivotally mounted. The rest, which is shown separately in Fig. 3, has a tail 7, by means of which it is bolted or fastened to the bracket at 8. The body of the rest is of U shape, comprising the throat 9 and the limbs 10. The limbs are connected at their free ends by the cross bar 11 held in place by screws 12. Alined bearings are formed in the throat and cross bar and in the bearings are journaled the movable supports for the bobbin. Preferably this support takes the form of a pair of rolls 13 and 14 as illustrated. The peripheries project above the surface of the body of the rest, so that when the bobbin is in the holder as illustrated at 15 in Fig. 2, it will be supported entirely upon the roll peripheries.

It will be seen that, as the bobbin rotates with the yarn either led directly up through the slot 5 or under one of the guards 6, resting upon the roll peripheries, it will cause the rotation of the rolls and consequently the periphery of the roll in engagement with the yarn periphery of the bobbin will move simultaneously therewith with a minimum of friction and allow the finest and most delicate of yarns to be spooled without difficulty.

The invention having been described, what is claimed as new and desired to be secured by Letters Patent, is:

In a bobbin holder, a rest comprising a U-shaped body, a cross bar connecting the ends of the limbs thereof, the throat of the body and the cross bar having alined bear-

ings therein, and a pair of rolls parallel with and between said limbs and projecting above the surface thereof to support the bobbin and rotate therewith, said rolls being journaled at their ends in the bearings and freely rotatable therein.

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

ALONZO E. RHOADES.

Witnesses:
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