Oct. 14, 1924. 1,511,356

R. A. MORSE

THREAD GUIDE

Filed March 14, 1924

Fig. 1.

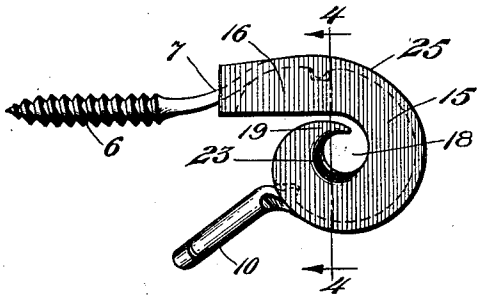



Fig. 3.

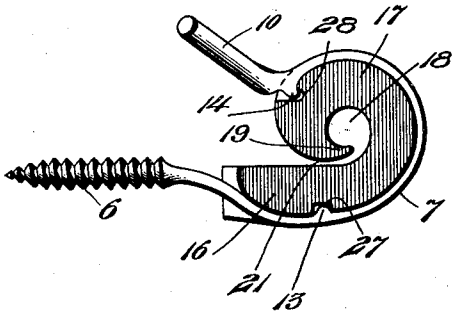



Fig. 2.

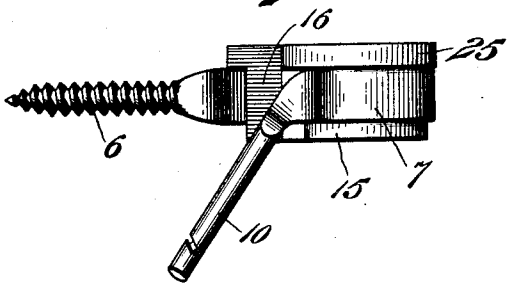
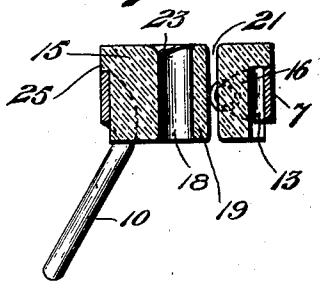



Fig. 4.




Inventor
Reginald A. Morse
By Horatio E. Bellows
Attorney

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# UNITED STATES PATENT OFFICE.

REGINALD A. MORSE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO MORSE PATENTS COMPANY, OF PROVIDENCE, RHODE ISLAND, A CORPORATION OF RHODE ISLAND.

## THREAD GUIDE.

Application filed March 14, 1924. Serial No. 699,182.

*To all whom it may concern:*

Be it known that I, REGINALD A. MORSE, 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 Thread Guides, of which the following is a specification.

My invention relates to such thread guiding devices for use upon spinning frames, twister frames and analogous textile frames as have a relatively hard thread bearing element carried by a support.

The essential objects of my invention are to resist penetration or wear of the guide by the thread; to facilitate the induction of the filament into the eye and its free movement therethrough; to prevent the accidental escape of the thread therefrom; to protect the filament from abrasion or other injury; to prevent movement of the bearing element relatively to its support and the accumulation of secretions therebetween; and to attain these results in a simple and inexpensive structure. Further objects of my invention will appear from an examination of the following description.

To the above ends primarily my invention consists in such parts and in such combinations of parts as fall within the scope of the appended claims.

In the accompanying drawings forming a part of this specification, and 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 a side elevation respectively of my thread guide.

Figure 3, a reverse plan view of the same, and

Figure 4, a section on line 4—4 of Figure 1.

Like reference characters indicate like parts throughout the views.

In the construction of my guide the metallic shank or attaching rod 6 may be of any usual or preferred construction. In this instance the rod is threaded for engagement in the finger board or other adjacent portion of a textile frame. Integral with the forward end of the rod is a thin preferably resilient hook shaped strap or band 7 lying in a horizontal plane, depending from the free end of which is an inclined finger or kink catcher 10. In an intermediate portion of the strap and at its free end are transversely disposed internal ribs 13 and 14 respectively.

Detachably fitted in the strap 7 is a thread bearing block 15 of porcelain or other vitreous material comprising a shank 16, a laterally extending coil 17 upon its outer end forming a circular central eye 18, and a tapering curved, inwardly and forwardly directed, terminal point 19 adjacent the forward inner face of the shank, and forming therewith a noninclined thread passage 21 extending to the eye and tangential thereto. The shank, the coil and the point are substantially rectangular in cross section, and the upper margin of the eye, as at 23, is somewhat rounded transversely. The passage 21 is in substantial alignment with the rod 6. The strap 7 embraces the exterior face of the shank 16 and the coil 17, and terminates adjacent the point 19. A peripheral flange 25 continuous with the top face of the block 15 overlaps the upper edge of the strap preventing access of dirt or lint. Vertically disposed grooves 27 and 28 in the shank and coil form seats for the ribs 13 and 14 respectively, whereby any movement of the thread bearing block 15 relatively to the strap 7 is prevented. The thread is inducted without obstruction through the passage 21 into the circular eye 18 through which it runs without danger of escape in a vertical or inclined position. The rounded margin 23 of the eye prevents any wear upon the passing inclined filament. The character of the strap or band is such as to not only protect and locate the thread bearing block to particular advantage but cooperates with the latter to permit a renewal or substitution in case of breakage, and contributes to the facile and inexpensive construction of the device.

I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:—

1. In a thread guide, a bearing block of vitreous material comprising a shank, a laterally extending terminal coil upon the outer end of the shank forming a circular central eye, and a tapering curved forwardly directed point terminating adjacent the shank and forming therewith a thread passage extending to the eye, a resilient strap sur-

rounding both the shank and coil, and an attaching rod integral with one end of the strap in substantial alignment with the thread passage.

2. In a thread guide, a vitreous bearing block comprising a shank provided with a transverse groove, a laterally extending coil upon the shank provided with a transverse groove, and a tapering curved point, the shank, coil and point constituting an eye and a passage tangent thereto, a strap embracing the shank and coil, ribs on the strap registering in the groove, and an attaching rod integral with one end of the strap.

3. In a thread guide, a bearing block comprising a shank, a laterally directed coil and a curved terminal point forming together an enclosed circular eye, and a passage communicating with the eye, a strap embracing the shank and coil, a lateral flange upon the shank and coil overlapping the strap, an attaching rod upon one end of the strap adjacent the inner end of the shank, and an inclined depending finger upon the other end of the strap adjacent the coil.

4. In a thread guide, a bearing block comprising a shank, a coil, and a terminal point, all transversely rectangular and forming a central circular eye and a passage communicating therewith, the mouth of said eye being transversely rounded, a strap embracing the shank and coil, and an attaching rod upon the strap.

In testimony whereof I have affixed my signature.

REGINALD A. MORSE.