April 19, 1932. J. G. GRIESER 1,854,989

SELF THREADING SHUTTLE

Filed Oct. 6, 1931

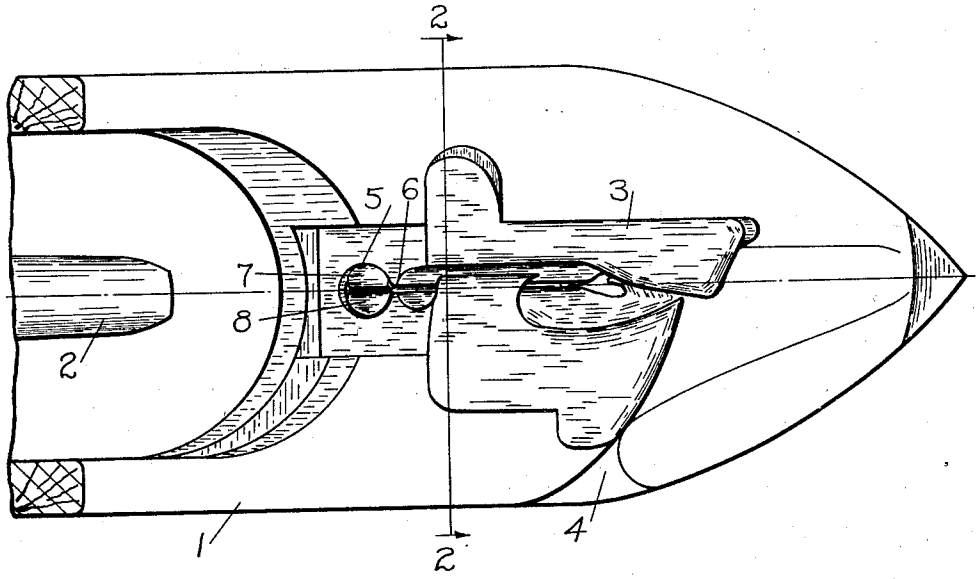

FIG. 1.

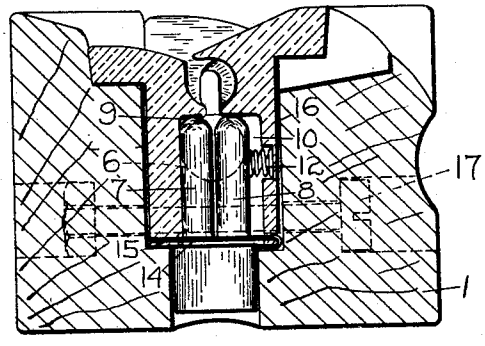

FIG. 2.

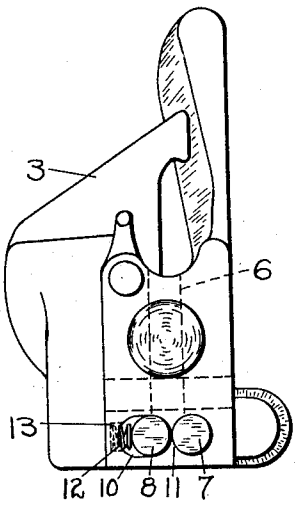

FIG. 3.

WITNESS
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UNITED STATES PATENT OFFICE

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SELF THREADING SHUTTLE

Application filed October 6, 1931. Serial No. 567,221.

This invention relates to shuttles for looms, and more particularly to a self contained tension means in the threading block of an automatically threading shuttle for properly tensioning the filling as it passes from the supply through the eye of the shuttle.

The object of my invention is to provide a simple and efficient filling tension as more particularly pointed out hereinafter and as defined in the claims.

In the drawings:

Fig. 1 is a perspective view of the eye end of an automatically threaded shuttle embodying my invention.

Fig. 2 is a cross sectional view taken substantially on line 2—2 of Fig. 1, and

Fig. 3 is a bottom plan view of the threading block showing the arrangement of the tension device therein.

A shuttle 1 of suitable conventional form is provided with any usual means, such as bobbin 2, for holding a supply of filling. The filling passes from the bobbin through a threading block 3 and out through a side eye 4. The threading block may be provided with any usual form of slot and ledges to permit the filling to be automatically drawn into the proper passage, and out through the side eye, when the shuttle is picked across the loom.

In shuttles of this type it is necessary to provide some means for applying a uniform tension of the proper degree to the filling before it passes through the side eye. The novel tension herein illustrated is positioned at the mouth 5 of the longitudinally extending thread conducting slot 6 in order that the tension may be applied before the filling enters the more or less tortuous path that it follows through the threading block. The tension device consists essentially of a pair of vertically positioned, laterally opposed tension members herein shown as being comprised of cylindrical posts 7 and 8 located in apertures 9 and 10, which extend crosswise of the threading slot from the bottom of the block and terminating just above the tops of the posts. The aperture 9, it will be noted, is substantially cylindrical in form, while the aperture 10 is elongated transversely of its axis, and the two apertures are connected as at 11 below the threading slot by a restricted opening. This restricted opening permits contact of the posts throughout their length but prevents their becoming laterally displaced. A coil spring 12 is positioned in a recess 13 in the wall of the threading block on the same side as the post 8. This coil spring extends from the recess to the post 8 and serves to yieldingly retain the posts in contact with each other.

It is to be understood that considering my invention from its broader aspects, the exact mode of retaining the coil spring in the block is not of particular importance, the essential feature being that the spring is entirely supported by the block so that the block and tension become a unit.

Suitable releasable means, herein shown as a wire pin 14, is provided for retaining the posts in their respective apertures. This pin extends through openings 15 in the opposite walls of the threading block and across the apertures 9 and 10 below the bottom of the tension posts 7 and 8. When the threading block is positioned in its recess 16 in the wood of the shuttle, the pin 14 cannot drop out of the block. However, when the block is removed from the shuttle by removing the usual bolt 17, the pin 14 can readily be released to permit removal of the posts 7 and 8 for replacement of the posts or the spring.

It will thus be seen that I have provided a simple and efficient tension which may be readily assembled into a unit with the threading block.

It is to be understood that the embodiment of my invention herein illustrated and described is for purposes of illustration only, and not of limitation, as the construction disclosed may be departed from in many respects without departing from the spirit of the invention.

I claim:

1. A shuttle including a threading block having a longitudinally extending thread conducting slot and a spring clamp tension comprised of a pair of laterally opposed posts vertically mounted in apertures extending upwardly from the bottom of the threading block one at each side of the slot, said aper-

tures terminating just above the tops of said posts and communicating laterally with the slot, and below the slot with each other, a spring positioned behind at least one of the posts for yieldingly urging the posts together, and a releasable retaining pin for the posts extending transversely of the lower ends of the apertures below the posts.

2. A shuttle including a threading block having a longitudinally extending thread conducting slot and a spring clamp tension positioned at the mouth of the slot and comprised of a pair of laterally opposed cylindrical posts vertically mounted in apertures extending upwardly from the bottom of the threading block and communicating laterally with the slot, there being a restricted opening between the apertures below the slot to permit contact of the posts, a spring extending from a recess in one wall of the threading block to one of the posts to yieldingly urge the posts together and a pin extending across the lower end of the apertures below the posts.

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