

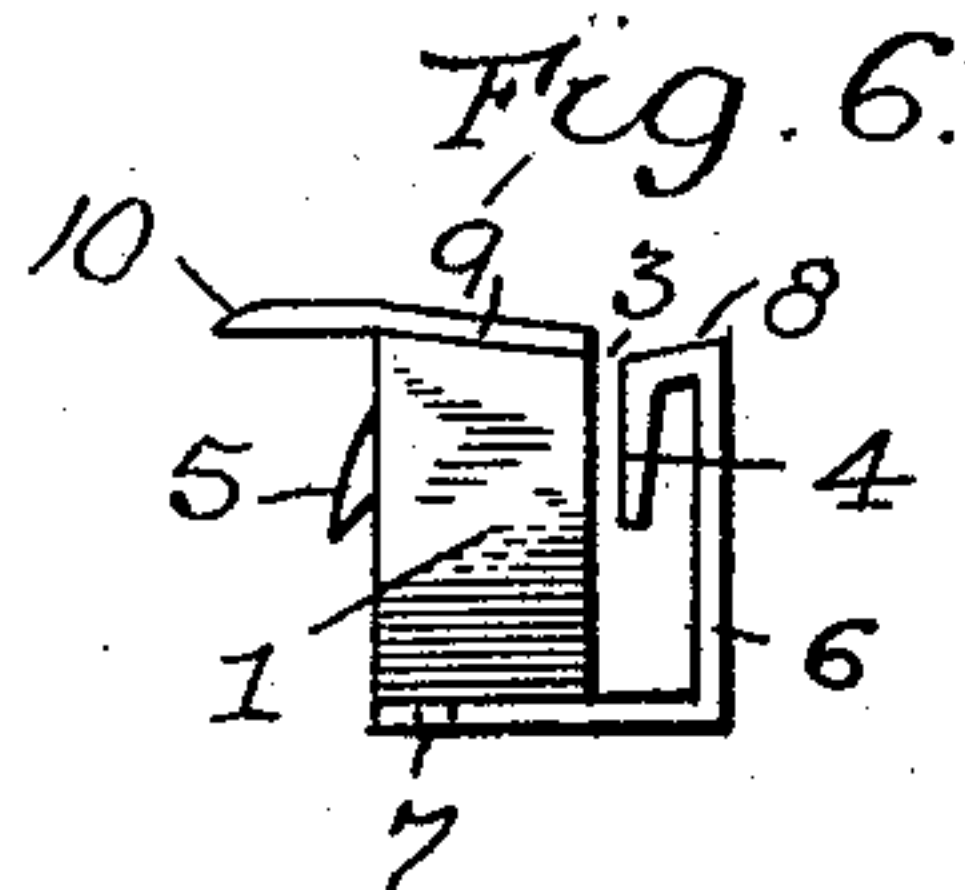
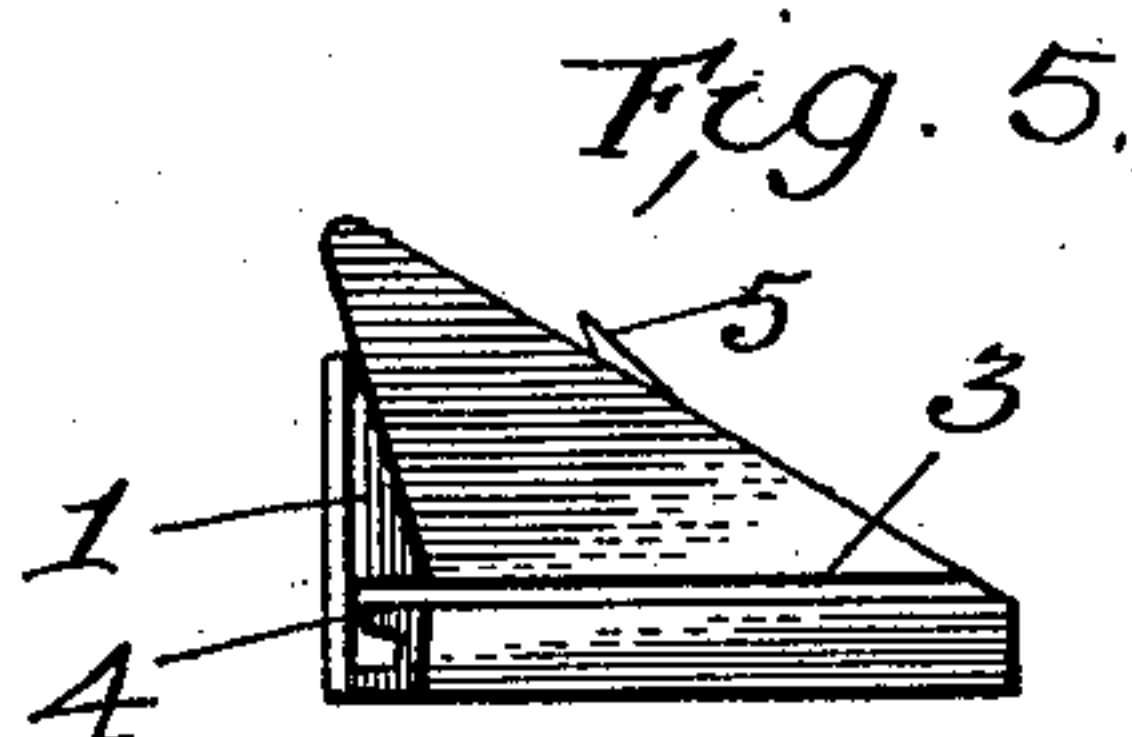
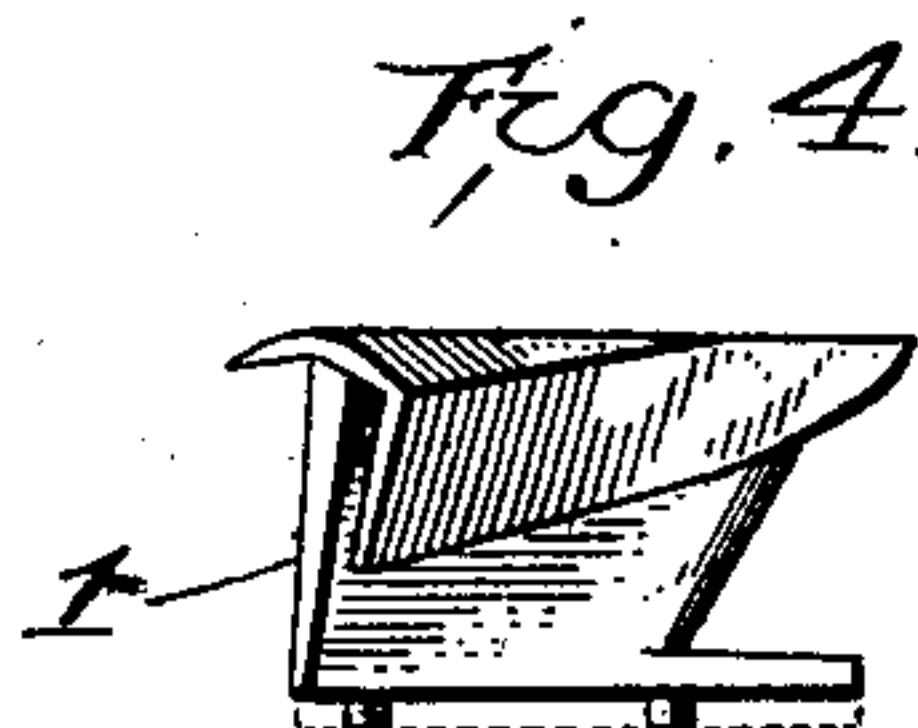
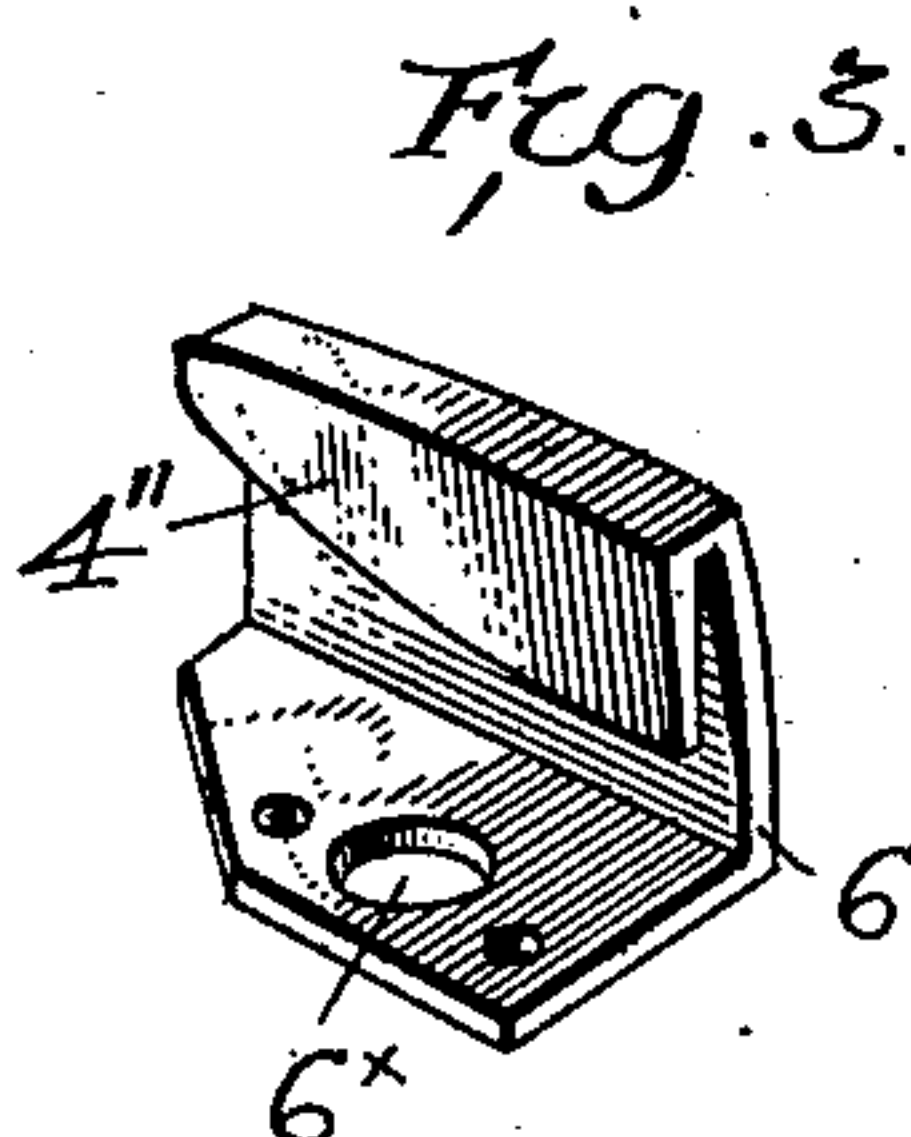
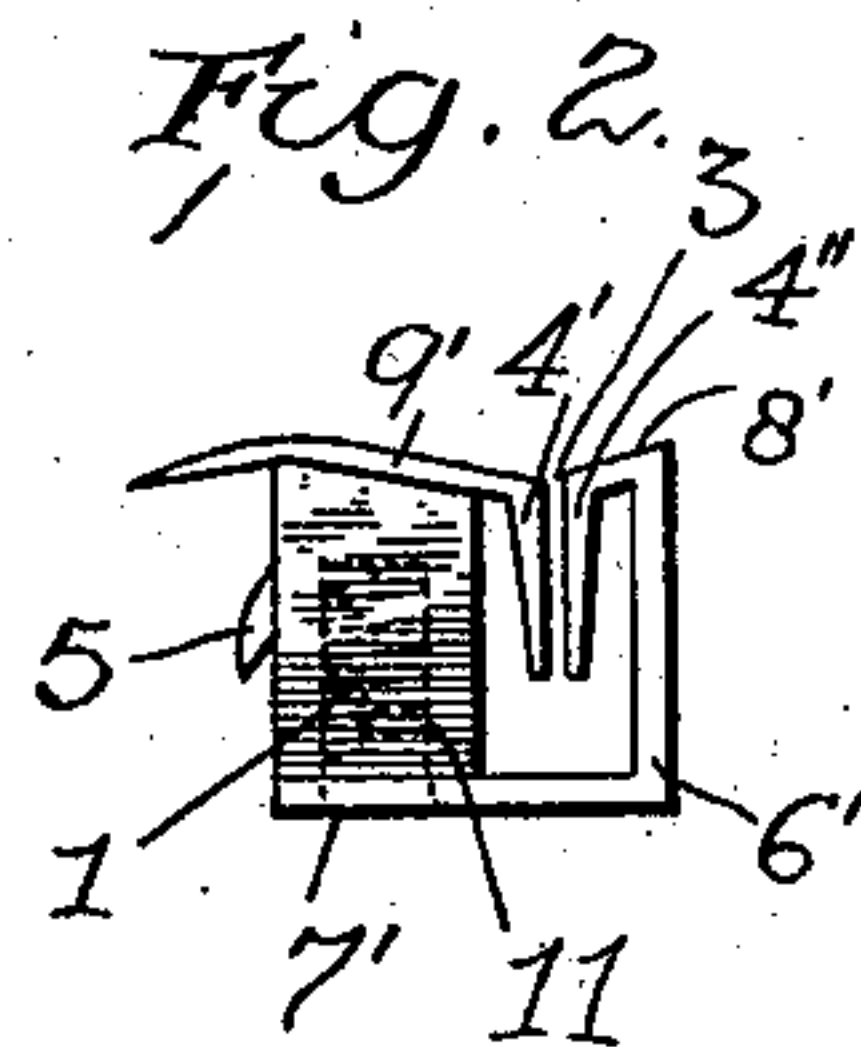
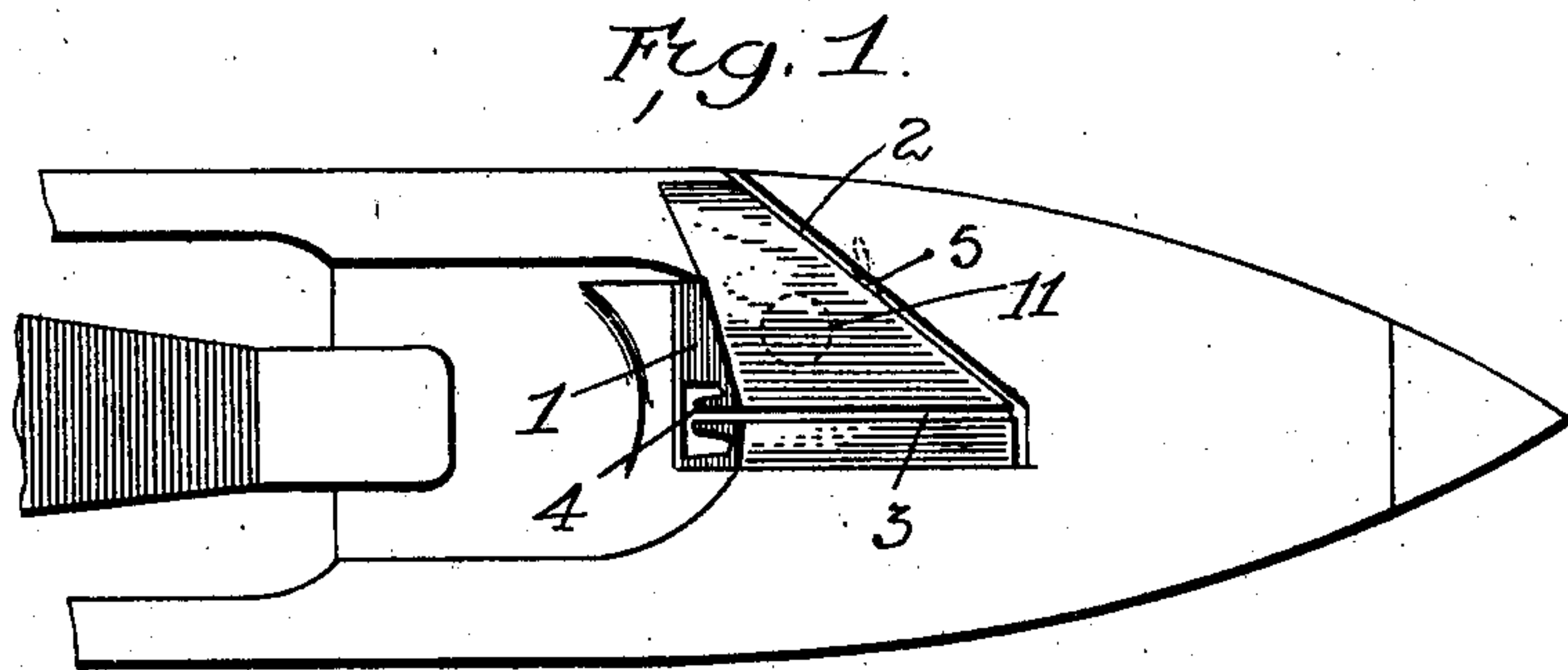
No. 762,887.

PATENTED JUNE 21, 1904.

R. L. CUMNOCK.
AUTOMATIC THREADING DEVICE.

APPLICATION FILED SEPT. 28, 1903.

NO MODEL.



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UNITED STATES PATENT OFFICE.

ROBERT L. CUMNOCK, OF ANDERSON, SOUTH CAROLINA.

AUTOMATIC THREADING DEVICE.

SPECIFICATION forming part of Letters Patent No. 762,887, dated June 21, 1904.

Application filed September 28, 1903. Serial No. 174,903. (No model.)

To all whom it may concern:

Be it known that I, ROBERT L. CUMNOCK, a citizen of the United States, residing at Anderson, South Carolina, have invented certain new and useful Improvements in Automatic Threading Devices, of which the following is a specification.

My invention relates to the form of automatic threading devices disclosed in Letters Patent of the United States granted to me August 18, 1903, No. 736,500, my present invention being a development of that shown in the said patent and adapted also to work with bobbins wound in an opposite direction from the bobbins with which the patented device is adapted to operate.

The invention consists of the features and combination and arrangement of parts hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a portion of a loom-shuttle embodying my invention. Fig. 2 is an elevation of the invention separate from the shuttle and looking from the left of Fig. 1. Fig. 3 shows one of the sections of my improved automatic threading device, and Fig. 4 illustrates the other section. Fig. 5 is a plan view of another form of my invention; and Fig. 6 is a view of Fig. 5 looking from the left thereof.

In my present invention I employ a block 1 of substantially wedge shape and of approximately the same form as that disclosed in the patent referred to. This block is arranged in a recess near the end of the shuttle and adjacent an inclined slot 2, leading to the thread-eye. A slot 3 extends longitudinally of the shuttle and at or near the axial line thereof, and this slot receives a thread from the bobbin, which thread is whipped under a depending flange on one side of the block, and thence the thread passes around the front edge of the block and along the inclined slot 2 to the thread-eye, said thread encountering in the inclined slot a spur 5, projecting across the said slot and serving to prevent backward movement or loss of the thread from the thread-eye through the said slot. I retain in my present construction the flange described

in my patent as extending longitudinally on one side of the block opposite to that side upon which the spur is located; and in the simplest form of my invention, (shown in Figs. 5 and 6,) the said flange is marked 4, and instead of being carried directly by the main portion of the block, as in the patent referred to, the said flange is carried by an extension 6, formed with or, as in the present instance, connected to the block by a dowel pin or pins 7. This extension is in the form of a right-angular plate in the present embodiment of my invention, said plate having an upwardly-extending portion with an inclined top part 8, ending in the depending flange 4, before described, which flange extends downwardly parallel with the side face of the main portion of the block 1, leaving the slot 3 between the said flange and the face of the block. The main portion of the block 1 is provided with an inclined top 9, which, as in the present instance, may consist of a plate secured to the top in any suitable manner, as by brazing or soldering, the said plate having an overhanging portion 10 to fit against the upper surface of the shuttle. The flange 4 has its lower edge inclined from the inner end of the device toward the point of the shuttle, and a flange similar to that being described is illustrated in Fig. 3 at 4".

It will be noticed from above that the threading device has a spur on one side and a flange on the other side, under which the thread from the bobbin will be whipped; but in the present instance the flange instead of being carried or directly attached to the side of the device is separated therefrom by the slot 3, and the flange is adapted to catch the thread from a bobbin wound in the opposite direction from that shown in the patented device.

In Figs. 1 to 4 I show a threading device provided with flanges adapted to work with a bobbin wound in either one or the other direction. In this instance the block 1 supports one of the flanges 4' directly thereon, said flange preferably forming an extension of the top plate 9'. The second flange 4'', which is arranged parallel with the first and at a slight distance therefrom, leaving a slot 3' between them, is carried by an extension from the

block, which extension is in the form already described, consisting of a right-angular plate 6', attached to the block by dowels 7' or in any other suitable way, the said angular plate having one portion extending vertically and provided with an inwardly and inclined extending top 8', ending in the depending flange 4". Both of these flanges are on the opposite side of the device from that upon which the spur 5 is located, and both of them have their lower edges inclining from the inner end of the device toward the point of the shuttle, said incline being in an upward direction. It will be seen that in this form of the invention the thread will be caught by either one or the other of the flanges 4' 4", and thus the device is adapted to work with bobbins wound in either one direction or the other. The two parts of the device are held in place by the same screw, which passes through the shuttle through a hole 6^x in the angular extension of the block and into a threaded hole 11 in the main part of the block. By this construction the angular extension carrying the outer flange is clamped between the main part of the block and the bottom of the recess in the shuttle.

I claim as my invention—

1. An automatic threading device for loom-shuttles comprising a block, a flange on one side of the block extending longitudinally and inclining upwardly toward the point of the shuttle, said flange being separated from the block by a longitudinal slot open at the top and a spur on the opposite side of the block from that upon which the flange is located to obstruct the inclined slot leading to the thread-eye, substantially as described.

2. An automatic threading device comprising a block having a spur on one side and a depending flange on the other and a right-angular extension from the said block carrying the flange, substantially as described.

3. An automatic threading device consisting of a block having a spur on one side and a flange on the other and a right-angular extension carrying the said flange and formed separate from and attached to the block, substantially as described.

4. An automatic threading device for loom-shuttles comprising a spur arranged to extend across the inclined slot leading to the thread-eye of the shuttle and a pair of flanges arranged to border a slot extending longitudinally of the shuttle, each of said flanges inclining upwardly toward the point of the shuttle and overhanging a space or groove to receive the thread, substantially as described.

5. An automatic threading device for loom-

shuttles having a flange on one side thereof extending longitudinally and from the inner end to the extreme point of the device, said flange inclining upwardly and overhanging a channel for the thread while it is separated from the main part of the device by a slot, substantially as described.

6. An automatic threading device for loom-shuttles having a flange inclining upwardly on its lower edge, the said device having its front end inclining downwardly and inwardly and a second flange separated from the first flange by a slot unobstructed vertically throughout its extent, substantially as described.

7. An automatic threading device for loom-shuttles comprising a pair of flanges separated from each other by a slot extending longitudinally on the shuttle and unobstructed vertically, one of the said flanges depending to a lesser extent near the point or outer end of the device than at the inner end and the slot between the flanges communicating with a slot at the outer end of the device, substantially as described.

8. In combination with an automatic threading device for loom-shuttles a pair of flanges inclining upwardly on their lower edges and extending continuously from the inner end of the device to the extreme outer point thereof and overhanging thread-channels, the said device having its front end inclining downwardly and inwardly and the slot between the flange communicating with a slot inclining laterally, the point of junction between the slots being unobstructed, substantially as described.

9. An automatic threading device for loom-shuttles comprising a block having a spur on one side thereof and a flange upon the other side, separated therefrom by a longitudinal slot open at the top, the said flange being carried by an extension from the block and overhanging a groove or space to receive the thread, substantially as described.

10. An automatic threading device consisting of a block having a flange overhanging a thread-channel and separated from the block by a slot extending longitudinally of the shuttle and independent of the thread-channel, the said flange being carried by a laterally and an upwardly arranged extension from the said block, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT L. CUMNOCK.

Witnesses:

ROBT. E. LIGON,
R. S. McCULLY.