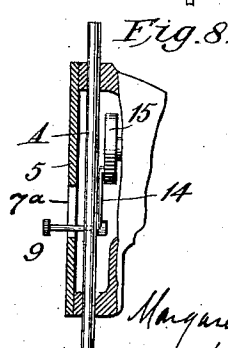
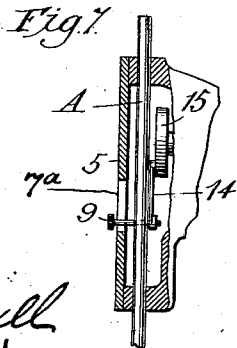
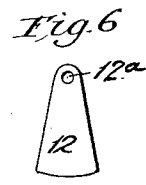
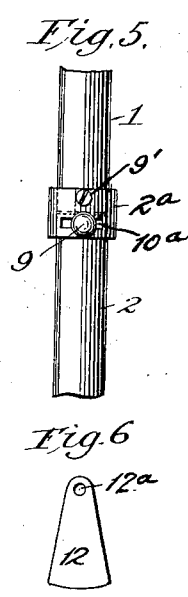
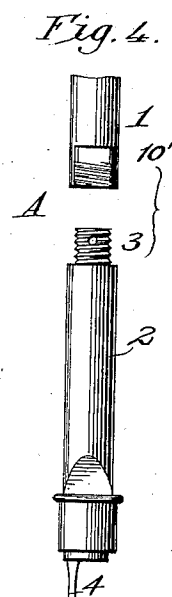
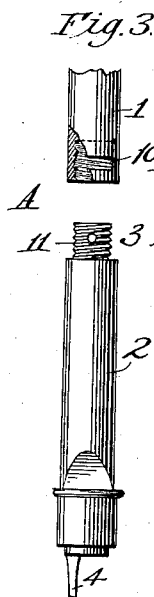
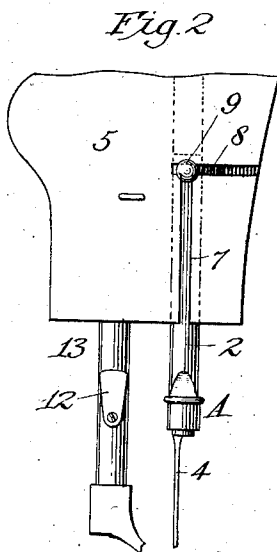
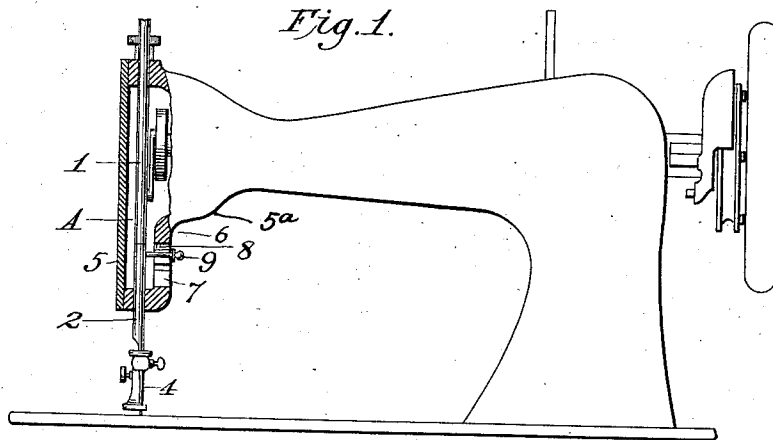


M. E. B. WILLIAMS.
 THREADING MEANS FOR SEWING MACHINES.
 APPLICATION FILED OCT. 21, 1911.

1,026,483.

Patented May 14, 1912.



Witnesses:
 C. P. Pull
 Charles Lowell Howard

Inventor:
 Margaret Elizabeth Bredt Williams
 by W. W. Thomas
 atty.

UNITED STATES PATENT OFFICE.

MARGARET ELIZABETH BEEDLE WILLIAMS, OF WESTERNPORT, MARYLAND.

THREADING MEANS FOR SEWING-MACHINES.

1,026,483.

Specification of Letters Patent.

Patented May 14, 1912.

Application filed October 21, 1911. Serial No. 656,056.

To all whom it may concern:

Be it known that I, MARGARET ELIZABETH BEEDLE WILLIAMS, citizen of the United States, residing at Westernport, in the county of Allegany and State of Maryland, have invented new and useful Improvements in Threading Means for Sewing-Machines, of which the following is a specification.

This invention relates to means whereby the threading of the needle is easily and quickly accomplished, and without that straining upon the eyes and body of the operator ordinarily found in having to twist to one side in order to effect it.

Heretofore, so far as I am aware, needle bars for late models of sewing machines have been so constructed as to permit only of the threading from left to right, but under my invention it may be effected from either side, or any angle chosen by the operator.

Generally considered, my invention consists in forming the needle bar in sections, the one of which holding the needle shall be so connected as to permit of the needle to be turned to any convenient position for threading.

Other objects and advantages of my invention, and features and combinations entering therein, are hereinafter more particularly specified.

In the accompanying drawings, Figure 1 represents my improved needle bar applied to a sewing machine and ready for use; Fig. 2 is a front detail view showing means for adjusting the needle bar to any position for threading the needle; Figs. 3 and 4 show means whereby the upper and lower sections of the bar are adjustably held together; Fig. 5 shows a modification hereinafter described; Fig. 6 shows a feature the construction and purpose of which are hereinafter described; and Figs. 7 and 8 show modifications in the needle bar and its adjuncts.

My improved threading means for sewing machines consists in its preferred form in a needle bar A composed of an upper section 1 and a lower section 2 adjustably joined by screw threads at 3, the latter section carrying a needle 4. This needle bar is housed in the needle head 5^a of the machine so as to work up and down in the usual manner. The lower portion 6 of the needle head 5^a is provided with a perpendicular groove 7 and a horizontal groove 8, the purposes of which

grooves, and of other features hereinafter described, will be pointed out.

Now an operator wishing to thread the needle held by my improved needle bar, and finding the eye of the needle accessible only from left to right, as is the case when the needle is in proper position for use, grips the pin or knob 9 which is held in the lower section of the bar, and turns said pin or knob in the horizontal groove 8 to the right, thus causing the lower section of the bar to turn with it exhibiting the eye of the needle directly in front of her. It will be observed that the operator may now thread the needle quickly and without twisting to one side, thus avoiding injury to the eyes and body.

Further illustrations of the means for permitting of the turning of the lower section of the needle bar independently of the upper section when it is desired to thread the needle are shown in enlarged Figs. 3 and 4. In Fig. 3 the upper tubular interiorly-threaded section 1 is furnished with a slot 10 and the lower cylindrical exteriorly-threaded section 2 with a screw-hole 11. The two sections having been screwed together for subsequent axial adjustment, the screw pin or knob 9 is fitted in the hole 11 and when the lower section 2 carrying the needle is to be axially moved with respect to the upper section 1, this is effected by means of the pin or knob 9, the movement of which is limited by the length of the slot 10, in which it works. In Fig. 4 a similar arrangement is employed, the difference being that, instead of the slot 10, a part of one side of the tubular upper section 1 is removed to the bottom thereof as at 10', affording a stop to the movement of the pin or knob 9, the latter being inserted after the two sections have been screwed together for axial adjustment, as explained. In Fig. 5 similar results are obtained by a modified construction. The upper section 1 and the lower section 2 of the needle bar are connected by means of a sleeve 2^a having internal threads engaging the exterior threads of the upper and lower sections. The latter has a pin or knob 9 which coacts with the opening 10^a formed in the sleeve, performing the function hereinbefore described. In order to tighten the sleeve 2^a upon the upper section, after the lower section carrying the needle has been properly adjusted and screwed home in the sleeve, a set screw 9' may be used for the purpose.

A similar set screw may be employed, though not thought to be necessary, in forms of the device shown in other figures.

As a further aid to the threading of the 5 needle, I show in Fig. 6 a metal plate 12 adapted to be fastened to the lower front part of the presser bar 13 by a screw entering the hole 12^a, which plate may be turned up out of the way when not in use. When 10 employed, the plate is let down and so secured and being painted a dull white or neutral color, serves as a background to aid in the threading of the needle. The throat plate and slide are also similarly painted or 15 coated, the effect being to lessen the strain in the eyes due to the bright nickel finish usually found at or near the threading point, and which reflects light into the eyes of the operator, adding to the difficulty ordinarily 20 found in threading the needle.

It will be readily seen that the danger of operating the machine when the needle is not in correct position is averted inasmuch as it would be impossible to work the needle 25 bar up and down in the longitudinal groove 7 were the pin or knob 9 too much to the right. The needle is only in position for sewing when the knob 9 is in exact alinement with the perpendicular groove 7.

In some makes of machines it may be advisable to make the needle bar in one piece, as seen in Fig. 7. Here the single part needle bar A is provided with a pin or knob 9, 30 slidable in slot 7^a of the face plate 5, shown inserted in the connection-link 14, the latter being pivoted to the wheel 15. Therefore, in the position in which the pin or knob 9 is shown in Fig. 7, the needle bar is connected up for action. In Fig. 8 the pin or knob 9 40 is represented as withdrawn from the connection-link so that the single part needle bar A may be given axial adjustment, as hereinbefore described, to permit of the convenient threading of the needle.

I do not limit myself to the position of the 45 cut-away part or cavity 6 in the needle head,

it being obvious that this cavity may be in the face plate of the needle head as shown, with grooves similar to those shown in Fig. 2. Nor do I limit myself to the point at 50 which the upper and lower sections 1 and 2, respectively, of the needle bar are adjustably joined. The needle itself may also be integral with the lower section 2 of the needle bar. 55

In some forms of machines, the knob or pin 9 may conveniently come out under the arm of the machine, as where the tensions and other fixtures are put in front of the face plate. Such deviations from the preferred arrangements herein shown are considered immaterial and covered by my 60 claims.

I claim:

1. In threading means for sewing machines, the combination with a perpendicu- 65 larly and horizontally slotted needle head of a needle bar in sections, one of which carries the needle, said sections being secured together but capable of relative axial adjustment, and means for effecting and limiting 70 such adjustment and for securing said sections when adjusted, substantially as set forth.

2. In threading means for sewing machines, the combination of a face plate, a 75 needle bar capable of axial adjustment therein, a presser bar, and an adjustable plate on said presser bar serving as a background for the needle eye, substantially as set forth. 80

3. In threading means for sewing machines, the combination with a perpendicu- 85 larly and horizontally slotted face plate, of a needle bar capable of axial adjustment, and means for effecting and limiting such adjustment, substantially as set forth.

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

MARGARET ELIZABETH BEEDLE WILLIAMS.

Witnesses:

ANDREW DE SALES LAUGHLIN,
PATRICK FRANCIS LAUGHLIN.