

(No Model.)

W. A. WHEELER.  
THROAT PLATE FOR SEWING MACHINES.

No. 452,819.

Patented May 26, 1891.

Fig. 2.

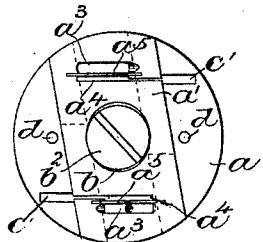


Fig. 3.

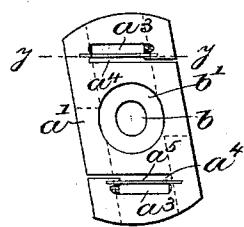


Fig. 9.

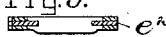


Fig. 2.

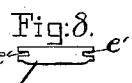
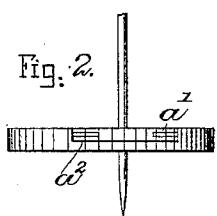


Fig. 4.

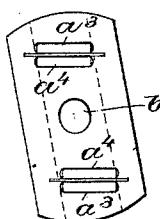


Fig. 5.

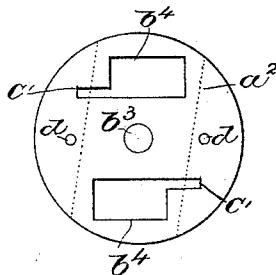


Fig. 7.

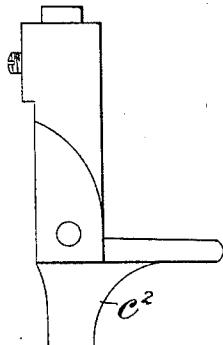
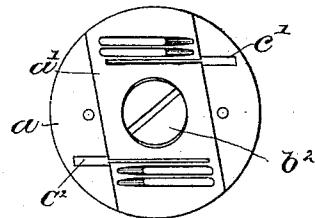


Fig. 6.



Witnesses

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# UNITED STATES PATENT OFFICE.

WILLIS A. WHEELER, OF MARLBOROUGH, MASSACHUSETTS.

## THROAT-PLATE FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 452,819, dated May 26, 1891.

Application filed December 16, 1890. Serial No. 374,856. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIS A. WHEELER, of Marlborough, county of Middlesex, State of Massachusetts, have invented an Improvement in Throat-Plates, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention relates to the class of throat-plates employed on wax-thread sewing and on sewing and trimming machines. These throat-plates having one or more slots for the needle and awl, and sometimes an additional slot for 15 a trimming knife or blade, have commonly been attached to the post of the machine by a screw; but in practice it frequently happens when applying a new throat-plate to a machine in place of a worn throat-plate that 20 these slots fail to come in just the proper position with relation to the needle and awl of the machine or to the knife. To obviate this trouble I have made a compound throat-plate, it consisting, essentially, of a main plate 25 and an independent slotted auxiliary plate applied thereto, and with this novel compound throat-plate the slots by suitable adjustments may be made to come exactly in proper position with relation to the parts to work 30 through them, thus obviating all possible chance of the needle or awl or of the knife striking the plate at the side of the slot.

My invention is also especially desirable in that class of wax-thread machines wherein 35 two needles are used to sew parallel seams close together.

I have chosen to illustrate my invention in a throat-plate having two sets of slots, so that on one or more slots of one set being worn 40 the plate may be turned end for end to bring the extra unused slots into working position.

My invention therefore consists in a compound throat-plate composed of two members provided with slots, one of said members being 45 movable with relation to the other, and means to secure the said members together, substantially as will be described.

Figure 1 is a top or plan view of a throat-plate adapted to be used on a sewing-machine and embodying my invention; Fig. 2, a 50 side elevation of the throat-plate shown in

Fig. 1, a needle being represented in elevation; Fig. 3, a top or plan view of the auxiliary plate shown separately; Fig. 4, an under side view of a modified form of auxiliary throat-plate; Fig. 5, an under side view of the main plate shown in Fig. 1; Fig. 6, a top or plan view of another form of throat-plate adapted to be used with two needles, and Fig. 7 a side elevation of a form of knife and its support 55 adapted to be used in connection with the throat-plate shown in Fig. 1. Fig. 8 shows a bridge removed, and Fig. 9 is a section in the line *y*-*y*, Fig. 3.

My improved throat-plate, made of metal or other suitable material, is composed of two parts or members *a* *a'*, the member *a*, called the "main plate," being provided with a slot or channel *a*<sup>2</sup>, in which is fitted the member *a'*, called the "auxiliary plate," the latter being made of such thickness as to have its upper face substantially flush with the upper face of the member *a*. The member *a'*, as shown in Fig. 1, is provided on opposite sides of its center with a needle-slot *a*<sup>3</sup> and a trimmer-slot *a*<sup>4</sup>, separated by a bridge-piece *a*<sup>5</sup>, and between the two sets of slots the movable member *a'* at its center is provided with an opening *b*, preferably having beveled sides or edges *b*<sup>6</sup>, and through such opening is inserted 60 a screw *b*<sup>2</sup>, which in practice is extended through an opening *b*<sup>3</sup> in the member *a* and into the usual post or bed-plate or framework of the machine to thus firmly secure the throat-plate to the machine. The member *a* on diametrically-opposite sides may be 65 and is provided preferably with like enlarged slots or openings *b*<sup>4</sup>, which register with the slots *a*<sup>3</sup> *a*<sup>4</sup> in the member *a'*. As represented in Fig. 5, the slots *b*<sup>4</sup> are made substantially 70 wider than both slots *a*<sup>3</sup> *a*<sup>4</sup>, so that the member *a'* may be moved or adjusted and yet have the slots *a*<sup>3</sup> *a*<sup>4</sup> in line with the opening or slot *b*<sup>4</sup>, the hole *b* being larger than the diameter of the screw *b*<sup>2</sup>.

The throat-plate shown in Fig. 1 is designed to be used on a wax-thread sewing-machine adapted to trim the material parallel to the seam; but a throat-plate embodying my invention may be used on a wax-thread 80 sewing-machine having two or more needles, and in such event the plates will be made as

in Figs. 4 and 6, the slots  $c'$  shown in Fig. 6 being used only in connection with a cutting or trimming knife.

In the throat-plate shown in Fig. 1 the 5 slots  $a^4$  open at the edge of the plate  $a'$ , and the plate  $a$  opposite said open-ended slot  $a^4$  is notched or slotted, as at  $c'$ . The slots  $a^4$  and  $c'$  are adapted to receive the cutting or trimming knife  $c^2$ , (see Fig. 7,) which may be 10 of any usual or well-known construction.

In operation the main plate  $a$  may be positioned in the machine in any usual manner, as by studs or pins (not shown) extended up 15 into the holes  $d$  in the said main plate  $a$ , and the throat-plate is then firmly secured by means of the screw  $b^2$ . If the slots  $a^3$   $a^4$  in the member  $a'$  are not in correct position to permit the machine to work properly, then the member  $a'$  may be adjusted by loosening 20 the screw  $b^2$  and moving the member  $a'$  until the needle can pass freely through the slot, and when thus adjusted said screw is again tightened to firmly secure the member  $a'$  to the member  $a$ , and both to the machine.

25 Another feature of my invention is represented in the drawings, viz: I have made the bridge-pieces  $a^5$ , dividing the slots  $a^4$   $a^3$ , detachable. Fig. 8 shows one of these bridge-pieces detached, and it will be seen that it is 30 so shaped at its ends as to be keyed into the auxiliary plate, the means herein depended upon to effect the keying being slots  $e'$  in the ends of the bridge, which are centered by keys  $e^2$ , made as thin metallic blocks held in longi-

tudinal slots in the edges of the auxiliary 35 plate, as best shown in the section, Fig. 9.

I claim—

1. The herein-described throat-plate, it consisting of a main or supporting plate  $a$ , provided with a channel and a slot  $b^4$ , an auxiliary plate  $a'$ , fitted into and reversible in said channel and having independent needle-slots  $a^3$  near each end, and means to secure the plates together, substantially as described. 40

2. The herein-described throat-plate, consisting of a supporting-plate  $a$ , provided with a channel and an opening  $b^4$ , and a knife-slot  $c'$ , an auxiliary plate  $a'$ , fitted into and reversible in the said channel and having needle-slots  $a^3$  and knife-slots, the latter coinciding with the knife-slots in the said supporting-plate, and means to secure the plates together, substantially as described. 45

3. The combination, with the supporting-plate  $a$ , provided with a channel and a slot  $b^4$ , 50 and a slotted auxiliary plate  $a'$ , fitted into said channel, of a removable bridge to separate or divide the slot of the auxiliary plate, and means to lock or retain the said bridge in position, substantially as described. 55

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

WILLIS A. WHEELER.

Witnesses:

GEO. W. GREGORY,  
EMMA J. BENNETT.