

June 9, 1931.

M. M. SCHRAGO

1,809,148

SEWING MACHINE

Filed March 27, 1928

2 Sheets-Sheet 1

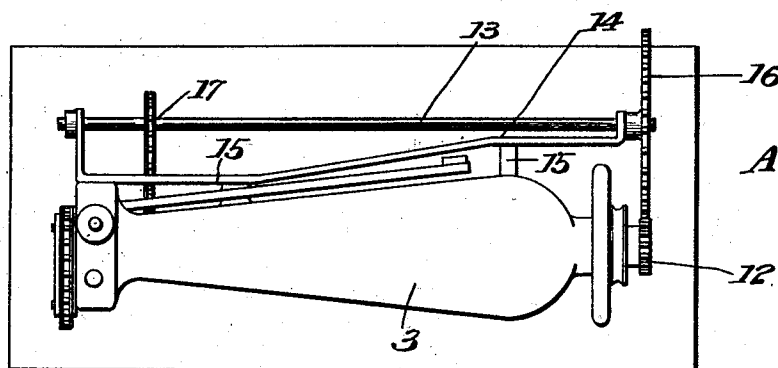


Fig. 1.

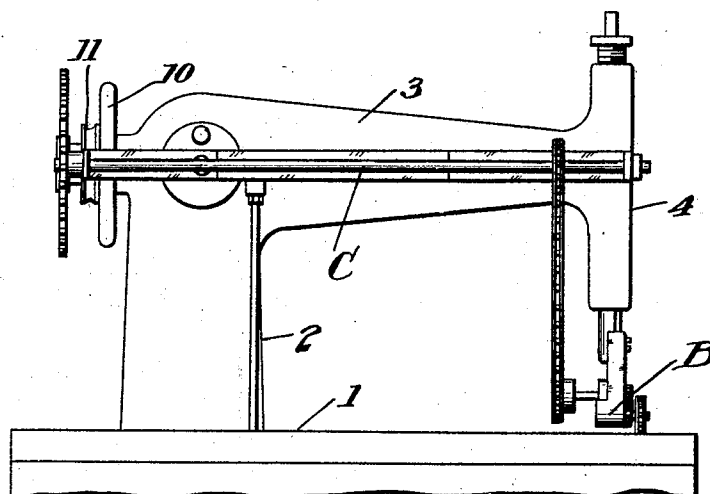


Fig. 2.

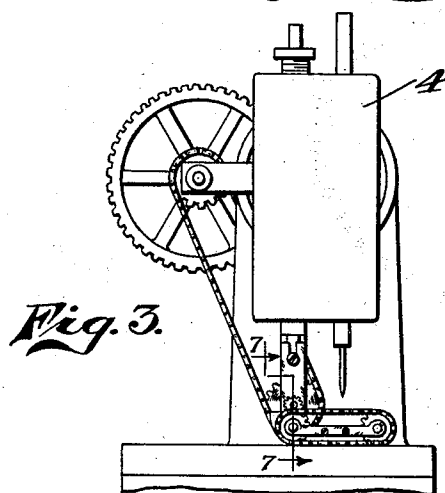


Fig. 3.

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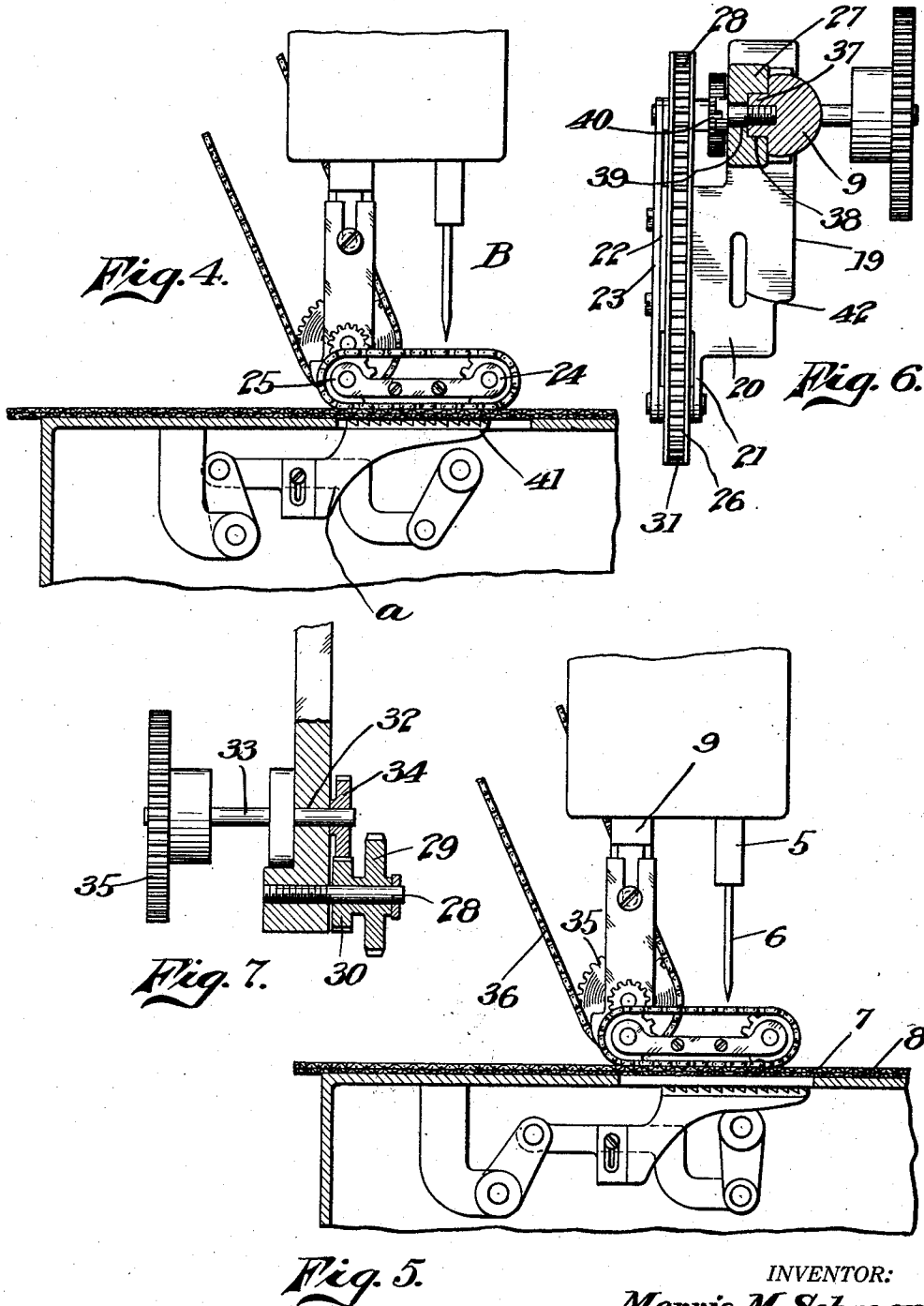
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UNITED STATES PATENT OFFICE

MORRIS M. SCHRAGO, OF LOS ANGELES, CALIFORNIA

SEWING MACHINE

Application filed March 27, 1928. Serial No. 265,088.

This invention relates to improvements in sewing machines, and particularly to the presser foot therefor.

The invention has for an object the provision in a sewing machine of a presser foot which will allow sewing wherever fullness is necessary. The particular device is so arranged and constructed that it may operate on any chain stitch sewing machine which performs a basting operation. At the present time, it is customary to baste coat sleeves, under-collars, facing on coats, edges, bottoms, linings, etc., in position by hand. With my device, however, this basting may be done on a machine. The device is adaptable for many uses other than that stated and the said presser foot may operate in the usual manner, if desired. The device is simple of construction, easy to handle, and is generally superior to presser feet of the ordinary fixed type.

With the above mentioned and other objects in view, the invention consists in the novel and useful provision, formation, construction, association, and relative arrangements of parts, members, and features, all as shown in a certain embodiment in the accompanying drawings, described generally, and more particularly pointed out in the claims.

In the drawings:

Figure 1 is a plan view of a sewing machine incorporating the improved invention,

Figure 2 is a side elevation of the sewing machine of Figure 1,

Figure 3 is an end elevation of the sewing machine,

Figure 4 is a fragmental side elevation, partly in section, of a sewing machine embodying the invention,

Figure 5 is a view similar to Figure 4, certain of the actuating mechanism being in a changed relation,

Figure 6 is a plan view partly in section of the improved presser foot and associated mechanism, and

Figure 7 is a cross sectional view on the line 7-7 of Figure 3.

Corresponding parts in the several figures are designated by the same reference characters.

Referring now with particularity to the

drawings, the improved sewing machine as an entirety is designated by A and which machine includes a presser foot B and actuating means C therefor. The sewing machine proper may be of any standard form and in the present instance includes the usual base member 1 to which is attached or secured a standard 2 which carries the overhanging arm 3, and which overhanging arm in turn is joined with the head 4. The head 4 has within the same and in part projecting therefrom a needle bar 5 which is adapted for vertical reciprocation whereby any needle, such as 6, carried thereby may when said needle is threaded perform a stitching operation on fabric, such as shown at 7 and 8. The head likewise carries and has depending therefrom a presser bar 9. A main shaft within the overhanging arm is adapted to cause reciprocation of the needle bar 5, and this main shaft is provided at one end with a hand wheel 10 and likewise with a pulley wheel 11, it being intended that suitable means should be passed about said pulley wheel for the purpose of rotating the pulley wheel and the said shaft with which it is connected. In the present instance, the main shaft carries a gear 12. A jack shaft 13 is suitably journaled in a bracket member 14, which bracket member in turn is supported by suitable means 15 joined with the overhanging arm 3, and said jack shaft carries at one end a gear 16 adapted to mesh with the teeth of the gear 12. A sprocket 17 is also carried by the jack shaft. It is intended that this sprocket should drive the improved presser foot B in a manner to be presently described.

The improved presser foot B is detailed in Figures 4, 5, 6, and 7, and the same includes a foot member 19, the toe portion 20 of which is provided with an arm 21. Secured along one side 22 of the foot is an arm 23 formed with bearing ends 24 and 25. A sprocket wheel 26 is journaled between the arm 21 and the end 24. A shank 27 is secured to the foot at the heel portion thereof. A shaft 28 is adapted to carry a sprocket wheel 29 and a gear 30 as between the end 25 of the arm 23 and the shank, as shown in Figure 7. A continuous chain 31 is adapted to be carried be-

tween the sprocket wheels 26 and 29. The shank is provided with a bearing portion 32 adapted to receive a shaft 33 carrying a gear 34, the teeth of which are in mesh with the gear 30 and said shaft likewise carries a sprocket wheel 35. In the present instance, a continuous chain 36 is in mesh with the teeth of sprocket wheels 17 and 35. It will be noted that the presser bar 9 is formed with a flange 37 and that the presser foot shank is grooved at 38 for reception of said flange 37. The shank is likewise slotted at 39 and a lock screw 40 is adapted to be passed through said slot and secured to the presser bar for holding the presser foot to said presser bar.

The sewing machine likewise is provided with the usual feed dog mechanism designated generally as *a*. The dog is shown at 41 and this dog is actuated or reciprocated vertically and horizontally in the usual manner to cause a feeding in a given direction of the fabric or other material 8 to be sewed. As the feed dog mechanism is of ordinary construction, it will not be described in detail.

The operation of the device is as follows: After the presser foot is in position and the needle threaded, two layers of fabric 7 and 8 can be brought in position between the feed dog and the presser foot, the presser foot being elevated with the usual mechanism for lifting the presser bar to permit this to be done. The presser foot is, of course, provided with either a bifurcated toe or a slot, such as shown at 42, so that the needle may pass therethrough to perform the stitching operation. The top fabric 7 can then be pushed forward so as to puff the same and the chain 31 will feed this cloth in such puffed condition with the cloth 8 so that a sewing operation between the puffed cloth and the stitched cloth is accomplished. It will be evident that I have provided a presser foot having a caterpillar tread and which is adapted to be operated or moved by suitable mechanism. It is also obvious that under certain conditions, the caterpillar tread which would constitute the presser foot chain would not always have to be power driven as the cloth could be pushed ahead and frictional engagement of the top cloth with the bottom cloth would carry the top cloth forward and likewise cause movement of the tread.

I do not wish to be limited to the precise manner of driving the tread of the presser foot as many other methods could be readily adopted. In fact, the drive could be effected directly within the head 4, utilizing a drive from the main shaft. In fact, this latter method would be preferable in actual use and service, as external obstructions and danger of contacting with the driving chain 36 would be eliminated.

It is obvious that various changes and modifications and variations may be made in

practicing the invention in departure from the particular showing in the drawings without departing from the true spirit of the invention.

Having thus disclosed my invention, what I claim and desire to secure by Letters Patent is:

1. As a new article of manufacture, a presser foot having a foot portion and heel and toe portions, said foot being formed with a needle receiving opening, a presser bar receiving shank secured to the heel portion, sprocket wheels secured to the shank and toe portions, and a continuous chain extending between said sprocket wheels.

2. In a device as disclosed, a presser foot having a foot portion and heel and toe portions, a presser bar receiving shank secured to the heel portion, sprocket wheels secured to the shank and toe portions, a continuous chain between said sprocket wheels, and means for driving one of said sprocket wheels.

3. As a new article of manufacture, a presser foot including a foot portion and heel and toe portions, said toe portion being provided with an extended arm, an elongated arm secured to the foot portion, a sprocket wheel journaled between the two arms at the toe portion, a sprocket wheel journaled between the elongated arm and the heel, and a continuous chain extending between said sprocket wheels.

In testimony whereof, I have signed my name to this specification at Los Angeles, Calif. this 8th day of March, 1928.

MORRIS M. SCHRAGO.

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