

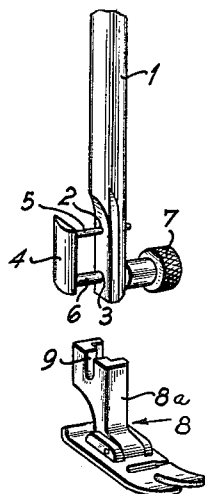
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PRESSER FOOT SUPPORT FOR SEWING MACHINES

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1

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PRESSER FOOT SUPPORT FOR SEWING MACHINES

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2 Claims. (Cl. 112-240)

The present invention relates to presser feet for sewing machines and is particularly concerned with support means for such devices.

In known presser foot supporting means the foot is tightly held against the presser bar by means of a threaded pin which extends through a bore in the presser bar and a knurled nut. The upper shank end of this known presser foot is in the form of a disk. This disk is provided with a slot having an enlarged portion at the upper end thereof. The enlarged portion serves for passing through the head of a threaded pin which extends into a bore in the presser bar, the shaft of which is partly encompassed by the slot. Upon tightening the knurled nut which is disposed on the opposite side of the presser bar, the head of the threaded pin presses against that part of the plate of the foot which it covers. In order to obtain sufficient support for the foot, it is therefore necessary to draw the knurled nut very tight which, on the end hand, is inconvenient for the seamstress and, on the other hand, leads to friction and wear on the fastening part of the foot. Furthermore, the threaded pin must also be secured against rotation or turning, which involves complications.

Another embodiment is known where the flat head of the threaded pin is enlarged to the diameter of the leg of the presser foot and can thus be considered as a round wedging disk. The effective pressure surface between head and presser foot is only slightly increased as compared to the first mentioned embodiment.

In the fastening means for conventional presser feet that have been used in practice, the conditions as far as use of energy and wear are concerned are similar. Here a recess in the upper part of the leg of the foot corresponds to the cross-section of the lower end of the presser bar and is slidably received over it. In this connection an open slot in the leg encompasses a fastening screw which is threaded into the material presser bar and which is provided with a bead which presses against the leg of the foot.

It is therefore an object of the invention to provide a presser foot support means that meets the requirements of mass production in a particularly simple manner and this for feet of the conventional form, that has a large pressure surface area between the threaded rod and the presser foot, and which, accordingly can be drawn up or tightened with very little effort and which, in addition, is secured against rotational displacement at relatively little expense.

In accordance with the invention this object is achieved by a guide pin disposed parallel to the threaded pin and above the same in a rectangular clamping plate that extends in the direction of the presser bar and which projects into a bore provided in the presser bar.

The drawing shows an embodiment of the new presser foot supporting means.

2

The presser bar 1 is provided with two bores 2 and 3. A guide pin 5 and a threaded pin 6 are fastened to a clamping plate 4 which has a flat rectangular surface area and are received in bores 2 and 3, respectively. Pins 5 and 6 extend perpendicularly to said clamping plate and parallel to each other. A knurled nut 7 serves for tightening the threaded pin 6 and thus the clamping plate 4 against the presser bar. The presser foot 8 is slidably received on the presser bar 1 in a manner that a slot 9 in the form of a recess extending downwardly from the top of the shank 8a encompasses the threaded pin 6 and presses the clamping plate 4 against the shank or leg 8a of the presser foot.

Having now described my invention with reference to the embodiment illustrated in the drawing, I do not wish to be limited thereto but what I desire to protect by Letters Patent of the United States of America is set forth in the appended claims.

I claim:

1. Supporting means for the presser foot of a sewing machine comprising a presser foot having a shank, a slot defined in the upper portion of said shank and extending downwardly from the top of said shank, a presser bar having a lower lateral portion slidably receiving corresponding sides of said slot, a pair of transverse bores in said presser bar, a clamping plate extending longitudinally of said presser bar, a threaded pin on said plate extending into one of said bores, a guide pin on said plate extending into the other of said bores, and a nut threadably received on said threaded pin, said slot extending around said threaded pin intermediate said plate and said presser bar.

2. Supporting means for the presser foot of a sewing machine comprising a presser foot having a shank, a slot defined in the upper portion of said shank and extending downwardly from the top of said shank, a presser bar having a lower lateral portion slidably receiving corresponding sides of said slot, a pair of transverse bores in said presser bar, a clamping plate extending longitudinally of said presser bar, a threaded pin on said plate extending into one of said bores, a guide pin on said plate extending into the other of said bores, and a nut threadably received on said threaded pin, said slot extending around said threaded pin intermediate said plate and said presser bar, said guide pin being disposed above and parallel to said threaded pin and extending perpendicularly to said plate and said plate having a rectangular surface area for engagement with one side of said shank.

References Cited in the file of this patent

UNITED STATES PATENTS

579,277	Lord et al. _____	Mar. 23, 1897
734,257	Diehl _____	July 21, 1903
747,163	Greist _____	Dec. 15, 1903

OTHER REFERENCES

Publication of the Lock Nut Company, date of publication—unknown. Received in the United States Patent Office September 23, 1932. Top sheet showing nuts and bolts only entitled "Various Railroad and Electrical Pole Line Hardware to be Equipped With the Arenz Lock Nut."