W. H. RAPLEE.

ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED MAR. 15, 1913.

1,103,836. Patented July 14, 1914.

FIG. 1

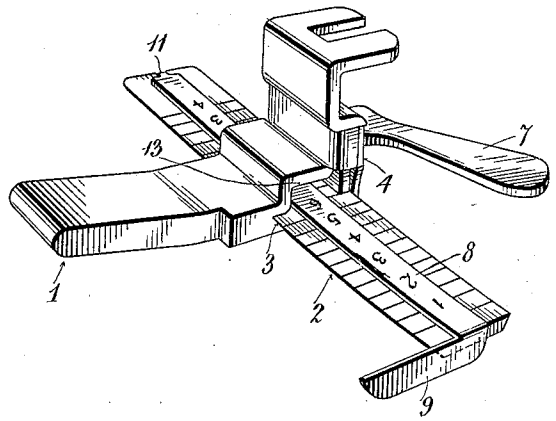


FIG. 2

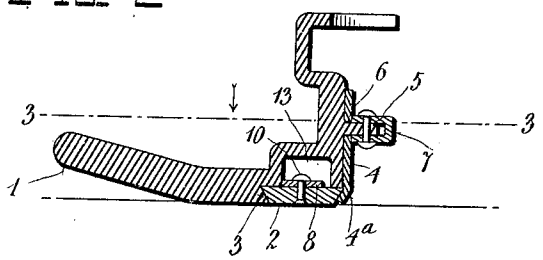


FIG. 5

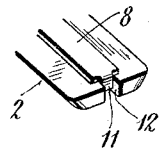


FIG. 4

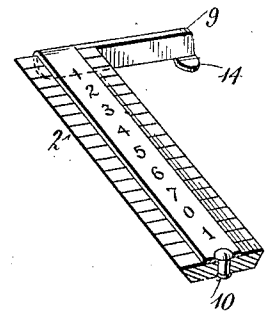
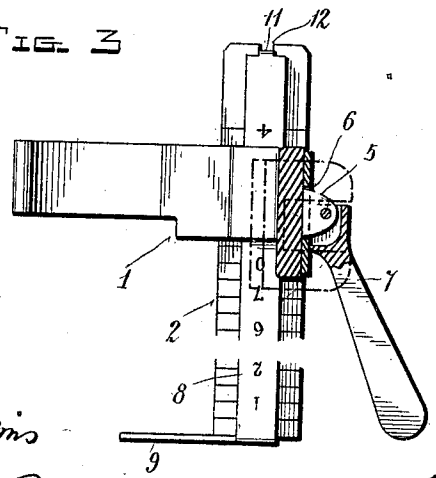


FIG. 3



Witnesses

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ATTACHMENT FOR SEWING-MACHINES.

1,103,836. Specification of Letters Patent. Patented July 14, 1914.

Application filed March 15, 1913. Serial No. 754,660.

To all whom it may concern:

Be it known that I, WILLIAM HENRY RAPLEE, a citizen of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Attachments for Sewing-Machines, of which the following is a specification.

This invention relates to improvements in presser foot and edge guide attachments for sewing machines, and it proposes a construction of the general type shown in the U. S. patent to Domenico Gattone, No. 1,021,671, of March 26, 1912, wherein the presser foot proper has combined therewith a transversely adjustable presser part, which makes the device especially adapted to the needs of tailors or garment makers in stitching "lap" seams and in work of similar character.

The object of the invention is to provide an attachment of the character stated wherein the construction and organization of the parts is materially simplified; wherein there is an improved relation between the adjustable presser part and the edge guide; wherein a more facile adjustment of the presser part and the edge guide is provided for; and wherein greater practicability and economy in manufacture are achieved.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of an attachment in which the features of the invention are incorporated; Fig. 2 is a sectional view thereof; Fig. 3 is a plan view thereof, partly in section; Fig. 4 is a detail perspective view of the adjustable presser part; Fig. 5 is a detail perspective view showing one end of the adjustable presser part.

Similar characters of reference designate corresponding parts throughout the several views.

The presser foot proper is shown at 1 and may be of any usual design. The transversely adjustable presser part is shown at 2, and is fitted against a transverse shoulder 3 on the under face of the presser foot 1, the relation being such that the under face of the part 2 is flush with the under face of the part 1, and the part 2 thereby forms, in effect, a continuation of the part 1.

The shoulder 3 is preferably beveled and, in effect, forms a member of a clamp by means of which the part 2 is held in relation to the presser foot. The other member of such clamp consists of a leaf spring 4 which is arranged against the rear face of the part 1 and has a projecting lower portion 4^a, constituting an engaging lip which confronts the shoulder 3 and is bent forwardly at an inclination corresponding to the inclination of said shoulder. The shoulder 3 and the engaging lip 4^a together define a dove-tail groove or channel in which the part 2 is fitted, and said part has a trapezoidal cross-section conforming to the outline of said groove.

The spring 4 is held in relation to the presser foot 1 by a lug 5 which projects from the rear face of said presser foot through a slot 6 in said spring, and by a cam lever 7 which is pivoted on said lug and is preferably mounted for horizontal movement. When the lever 7 is turned to project laterally from the presser foot, as shown in Fig. 3, its engaging end causes the spring 4 to act with clamping pressure upon the presser part 2 and to thereby securely hold said presser part in any position, relative to the presser foot, at which it may be set. On the other hand, when the lever 7 is turned to project rearwardly from the presser foot, the pressure with which the spring 4 engages the presser part 2 is relieved and said presser part is then freely movable in the groove or channel defined by the shoulder 3, and the engaging lip 4^a, and may thereupon be adjusted to any position required, or, if desired, may be wholly dissociated from the presser foot 1, whereby the latter may be used alone and as an ordinary presser foot. The presser part 2 is removed from the part 1 by a movement longitudinally of the groove or channel defined by the shoulder 3 and the lip 4^a. It will be understood that when the lever 7 is operated to enable the spring 4 to disengage the presser part 2, the pressure of said spring on said presser part is merely relieved, but the spring does not release the presser part sufficiently for it to drop from the groove or channel defined by the shoulder 3 and the engaging lip 4^a. Consequently, the presser part, so long as it is in use, will always remain in said groove or channel, being loose therein when an adjustment is to be made, and being relatively fast therein when an adjustment has been made.

An important feature of the invention is the improved relation of the presser part and the edge guide. The edge guide preferably consists of a leaf spring 8 having a guide finger 9 at one end thereof. The spring 8 is arranged on the upper surface of the presser part 2, extending longitudinally of said presser part, and its guide finger 9 is disposed closely adjacent one end of the presser part and projects forwardly therefrom. The spring 8 is held in position by a rivet or equivalent device 10, located at a suitable distance from the finger 9 to enable the spring to have the necessary play, and by a tang 11 engaging in a notch 12 in the adjacent end of the part 2.

The presser foot 1 is provided at a point inwardly of the shoulder 3 with a recess 13 which communicates with the groove defined by said shoulder and the engaging lip 4^a, and which provides a clearance for the upward movement of the spring 8.

The improved edge guide is adaptable with equal facility to either thin or heavy fabric, and the finger 9 is of considerably greater depth than the thickness of the part 2. In this way, when the spring 8 lies against the upper face of the part 2, the lower edge of the finger 9 will be in a plane below the under face of the part 2, and yet, the spring may yield whereby the lower edge of the finger 9 is in a plane coincident with the plane of the under face of the part 2. The edge guide has the further advantage of being inconspicuous and of involving no mechanical parts which add to the weight of the device, or which are liable to become entangled with the fabric and thus interfere with the operation of the machine. In order that the part 2 may be adjusted with a measurable degree of accuracy to satisfy existing conditions, said part is preferably calibrated with suitable linear divisions, and the spring 8, as a matter of convenience, carries numerals corresponding to the aggregate units of measurement into which the upper surface of the part 2 is divided.

In Fig. 4 a slight modification of the edge guide construction is shown, consisting in the addition of an inturned lug 14 at the forward end of the finger 9, and at the lower edge thereof. This lug is useful in hemming and similar operations where it is desirable to engage the lug under the edge portion of the goods, in order to prevent the material from working under the finger 9.

The presser part 2 is preferably slightly curved between its ends, in order to allow of the ready feed of the cloth, irrespective of the position in which said part may be set. The curvature of the presser part 2, for the purpose stated, does not, *per se*, form a feature of the invention.

Having fully described my invention, I claim:

1. A presser foot having its under face formed to provide a presser surface and having a transverse shoulder in said under face, a presser part fitted against said shoulder for adjustment transversely of said presser foot, the presser part having its underface flush with the underface of said foot to form a substantially uninterrupted inward continuation of said presser surface in any position of said presser part, a leaf spring arranged against the rear face of the presser foot and having its lower edge portion formed as an engaging lip which coacts with the shoulder to define a groove or channel in which the presser part is fitted, the leaf spring having a slot, a lug projecting rearwardly from the presser foot through said slot and a cam lever pivoted at its engaging end to said lug and arranged to act on said leaf spring to cause the latter to engage the presser part with clamping pressure.

2. A presser foot having its under face formed to provide a presser surface and having a transverse shoulder in said under face, a presser part fitted against said shoulder for adjustment transversely of said presser foot, the presser part having its under face flush with the under face of said foot to form a substantially uninterrupted inward continuation of said presser surface in any position of said presser part, means in co-action with the shoulder to clamp the presser part to the presser foot and a spring pressed edge guide mounted directly on the presser part and including a yieldable finger arranged closely adjacent an end of said presser part.

3. A presser foot having its underface formed to provide a presser surface and having a transverse shoulder in said under face, a presser part fitted against the shoulder for adjustment transversely of the presser foot, the presser part having its under face flush with the under face of said foot to form a substantially uninterrupted inward continuation of said presser surface in any position of said presser part, means in co-action with the shoulder to clamp the presser part to the presser foot, the latter having a recess opening to its under face inwardly of the shoulder and above said presser part, and an edge guide comprising a leaf spring fixed on the upper face of the presser part and disposed longitudinally thereof in line with the recess in the presser foot and a guide finger arranged at the free end of said spring beyond and adjacent said end of said presser part.

4. A presser foot having its underface formed to provide a presser surface and having a transverse shoulder in said under face, a presser part fitted against the

shoulder for adjustment transversely of the presser foot, the presser part having its under face flush with the underface of said foot to form a substantially uninterrupted inward continuation of said presser surface in any position of said presser part, means in co-action with the shoulder to clamp the presser part to the presser foot, a leaf spring fixed on the upper face of the presser part and disposed longitudinally thereof, and a guide finger arranged at the free end of the leaf spring beyond and adjacent an end of said presser part.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

WILLIAM HENRY RAPLEE.

Witnesses:
A. G. TREFRY,
A. F. CONWAY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."