No. 793,217. PATENTED JUNE 27, 1905.

H. A. NUSBAUM.

DOUBLE PRESSER FOOT ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED MAR. 3, 1904.

Fig. 1.

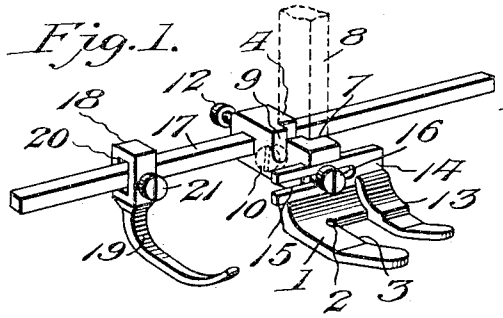


Fig. 2.

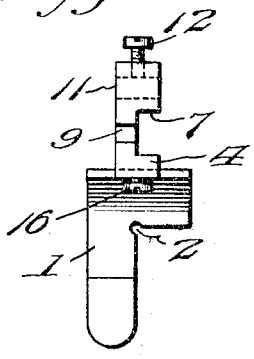


Fig. 3.

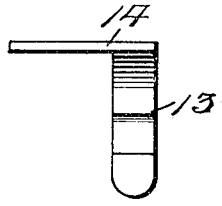


Fig. 4.

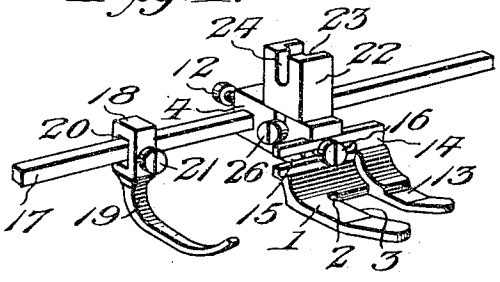


Fig. 5.

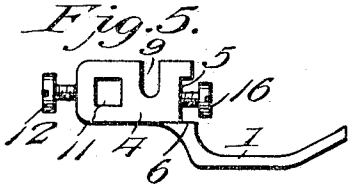


Fig. 6.

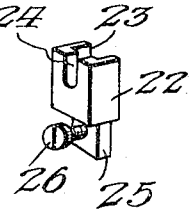


Fig. 7.

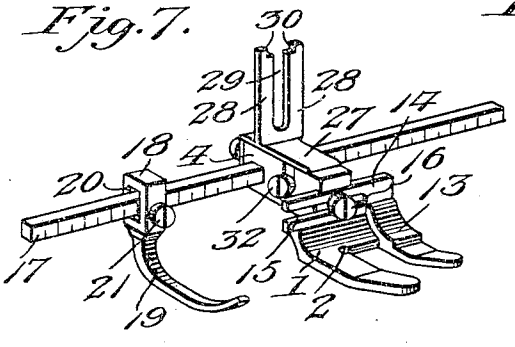
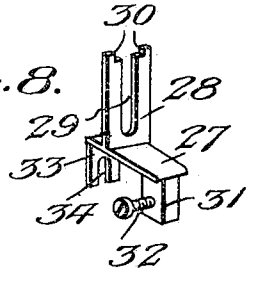


Fig. 8.



Witnesses

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UNITED STATES PATENT OFFICE.

HARMON A. NUSBAUM, OF ROCHESTER, NEW YORK, ASSIGNOR TO NUSBAUM SPECIALTY COMPANY, OF ROCHESTER, NEW YORK.

DOUBLE PRESSER-FOOT ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 793,217, dated June 27, 1905.

Application filed March 3, 1904. Serial No. 196,379.

To all whom it may concern:

Be it known that I, HARMON A. NUSBAUM, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented new and useful Improvements in Double Presser-Foot Attachments for Sewing-Machines, of which the following is a specification.

This invention relates to a double presser-foot and gage-foot attachment for sewing-machines.

The object of the invention is to facilitate the stitching of cord, welt, and lapped seams.

With the foregoing and other minor objects in view, which will appear as the description proceeds, the invention resides in the novel combination and arrangement of parts and the details of construction hereinafter described and claimed as a practical embodiment of the invention.

In the drawings, Figure 1 is a perspective view of the complete attachment embodying the features of the invention and showing a portion of the presser-bar in dotted lines. Fig. 2 is a top plan view of the main presser-foot. Fig. 3 is a top plan view of the presser-foot which forms a double foot with that shown by Fig. 2. Fig. 4 is a view similar to Fig. 1 with a slight modification in the construction and arrangement of the parts. Fig. 5 is a side elevation of the main presser-foot and shank or simplified form of socket-piece formed therewith. Fig. 6 is a detail perspective view of an auxiliary socket adapted to be applied to the shank of the socket-piece of the main presser-foot. Fig. 7 is a view similar to Figs. 1 and 4, showing a further modification in the attaching means to engage the presser-bar. Fig. 8 is a detail perspective view of the modified presser-bar-attaching means shown by Fig. 7.

Similar numerals of reference are employed to indicate corresponding parts in the several views.

The numeral 1 designates a presser-foot having a needle-eye 2 extending therethrough at a proper point and being bent, as shown at 3, to facilitate the introduction and passage of material beneath the presser-foot. The foot 1, preferably, is formed integral with a simplified form of head 4, which is adapted to be applied to a machine having a low presser-foot construction. The head 4 has a front longitudinally-extending slot or seat 5 formed therein, the upper rear terminal of the presser-foot 1 providing the lower wall or base shoulder 6 for said slot or seat 5. In the inner side of the head 4 a vertical slot 7 is formed to receive the lower end of a presser-bar 8, and in the outer portion of the head is formed an upwardly-opening screw-seat 9, extending only partially downwardly through the head and communicating with the slot 7. The seat 9 opens through the upper side of the head 4 and is adapted to receive a set-screw 10, carried by the presser-bar 8, and by having said seat 9 open through the upper side of the head the latter and the foot 1 may be quickly applied to or removed from the presser-bar. When the head 4 is applied to the presser-bar, the screw 10 is in loose condition and is afterward tightened to firmly secure the assembled parts in operative relation. Extending horizontally through the rear extremity of the head 4 is an angular opening 11 and coöperating therewith is a rear set-screw 12.

An auxiliary presser-foot 13, of less width than the foot 1 and devoid of a needle-eye, is removably applied in adjustable relation to the presser-foot 1 by means of an elongated tongue 14, extending outwardly from the upturned rear end thereof and slidably engaging the slot 5, said tongue 14 being formed with a longitudinal slot 15, opening through its outer end and adapted to be engaged by a set-screw 16, which enters the slot 5 in the head 4. It will be seen that this auxiliary presser-foot 13 may be easily applied to or removed from head of the presser-foot 1 without disturbing the latter to provide a double form of presser-foot for the purpose of stitching cord, welt, and overlapped seams of different widths, and when the auxiliary foot is removed the main foot 1 may be employed, as in ordinary sewing-machines for usual sewing operations.

A bar 17, angular in cross-section, is slidably mounted in the opening 11 and is held in adjusted position in relation to the single foot 1 or the double-foot organization by the set-

screw 12. On the outer portion of this bar a head 18 of a gage-foot 19 is longitudinally adjustable, said head having a slot 20 of such vertical extent as to permit the foot 19 to be raised or lowered to accommodate different thicknesses of material, and the vertical and longitudinal adjustment thereof is maintained through the use of a set-screw 21, extending through the inner side of the head 18 and engaging the bar 17. The vertical adjustment of the gage-foot 19 will be in proportion to the similar adjustment of the head 4 in relation to the presser-bar of the sewing-machine, and it will be understood that the bar 17 may be supplied with scale-marks, as shown by Fig. 7, so as to accurately determine the distance of any adjustment that may be desired. This adjustable gage-foot serves as a seam-gage for stitching cord, welt, and lapped seams in an even and positive manner and cooperates with the presser-foot construction heretofore set forth to render stitching the seams stated with accuracy.

The modified structure shown by Figs. 4, 6, 7, and 8 is to adapt the attachment having the essential features, as heretofore described, to types of machines having high presser-foot constructions and are in the nature of extensions, the remaining parts of the attachment being similar in construction to that just described and having like reference-numerals applied to corresponding parts thereof. The first modification or additional feature used with the attachment is clearly shown in detail by Fig. 6 and consists of a supplemental head 22, having a slot 23 in the inner side thereof and a screw-seat 24 opening through the opposite side and the upper end and communicating with the said slot 23. Depending from the lower end of the supplemental head 22, adjacent to the inner side of the latter, is an angular stem 25, having a set-screw 26 mounted therein. The stem 25 is fitted in the slot 7 of the head 4 and held in immovable relation to the latter by the set-screw 26, the end of the presser-bar being fitted in the slot 23 and the set-screw thereof engaging the seat 24. It will be observed that this modified feature is virtually a lengthening device for a presser-bar. Figs. 7 and 8 show a further-modified feature for adapting the attachment to be applied to presser-bars ordinarily having a high presser-foot secured thereto, as in certain types of sewing-machines, and in this instance the lengthening device consists of a horizontal plate or member 27, which has an upright 28 rising therefrom near the rear end and formed with a vertical slot 29 opening out through the upper terminal thereof, the latter being shouldered, as at 30, at opposite sides of the outlet of said slot to adapt it to fit against a presser-bar constructed with corresponding offsets or projections, the slot 29 having the set-screw of the presser-bar adjustably projected therethrough. Depending from the under side of the plate or member 27 near the inner edge is a rectangular projection or lug 31, having a set-screw 32 extending outwardly therefrom and adapted to fit in the slot 7 of the head 4, the set-screw under such conditions being located in the seat 9. Extending downwardly from the rear end of the plate or member 27 and disposed in a plane at right angles to the lug or projection 31 is a keeper 33, having a vertical slot 34 opening out through the bottom thereof, the said keeper being applied to the rear end of the head 4 and the slot 34 engaged by the set-screw 12.

The supplemental devices for adapting the application of the attachment to presser-bars of different lengths, as shown by Figs. 4, 6, 7, and 8, have been described as modifications; but it will be understood that said devices will form a part of the complement of the attachment to adapt the latter for application to any form of sewing-machine presser-foot. In other words, the attachment is equipped with means for rendering its application practical with respect to certain types of sewing-machine now commonly employed, and when the supplemental head or lengthening device shown by Fig. 6 and the lengthening device illustrated by Fig. 8 are applied to the head 4 of the presser-foot 1 the lower end of the supplemental head 22, between the outer side of the stem 25 and the outer side of said supplemental head, bears on the upper side of the head 4, and the under portion of the plate 27, between the outer side of the lug projection or stem 31 and the outer edge of said plate, likewise engages the upper side of the said head 4. By this means the two lengthening devices will be held against depression beyond a determined point when they are applied to the head 4.

The improved attachment in its complete form and embodying the lengthening devices which are applied to the head 4 will be found exceptionally useful and will replace a number of independent devices requiring separate application now ordinarily employed for the same purpose. It will also be understood that a suitable metal will be used in the construction of the attachment, and the parts may be plated or otherwise ornamented, as desired.

Changes in the proportions and dimensions may be resorted to without in the least departing from the spirit of the invention.

As will be understood by those skilled in the art to which this invention relates, the improved double presser-foot and gage-foot attachment which has been described is particularly adapted for use in forming cord, welt, and lapped seams. In using the device the seam proper passes beneath the presser-foot 1, and the auxiliary presser-foot 13 is located upon one side of said seam, while the gage-foot 19 is located upon the opposite side thereof. In stitching seams where the mate-

rial is lapped over upon itself adjacent to the seam the gage-foot 19 is adjusted close against the edge of the lapped portion, and thus serves to guide the seam properly with respect to the gage-foot 1.

Having thus fully described the invention, what is claimed as new is—

1. A double presser-foot and gage-foot attachment for sewing-machines comprising a head formed with a groove and an angular opening, a presser-foot upon the head, an auxiliary presser-foot having a tongue slidably fitted into the groove, a bar angular in cross-section removably fitted into the angular opening in the head, a gage-foot having a head formed with an elongated slot to receive the bar, and means for adjusting the head of the gage-foot vertically upon the bar.

2. A double presser-foot and gage-foot attachment for sewing-machines, comprising a head formed with a groove and an angular opening, lengthening means removably connected with the head, a presser-foot upon the head, an auxiliary presser-foot having a tongue formed with an open-ended longitudinal slot, said tongue being slidably fitted into the groove in the head, a set-screw extending through the slotted tongue into the head, a bar angular in cross-section removably fitted into the angular opening in the head, a gage-foot having a head formed with an elongated slot to receive the bar, and a set-screw for adjusting the head of the gage-foot vertically upon the bar.

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

HARMON A. NUSBAUM.

Witnesses:

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GEORGE M. SCHMITT.