No. 706,223. Patented Aug. 5, 1902.

T. F. DENNISON.

HEMMING ATTACHMENT FOR SEWING MACHINES.

(Application filed June 22, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

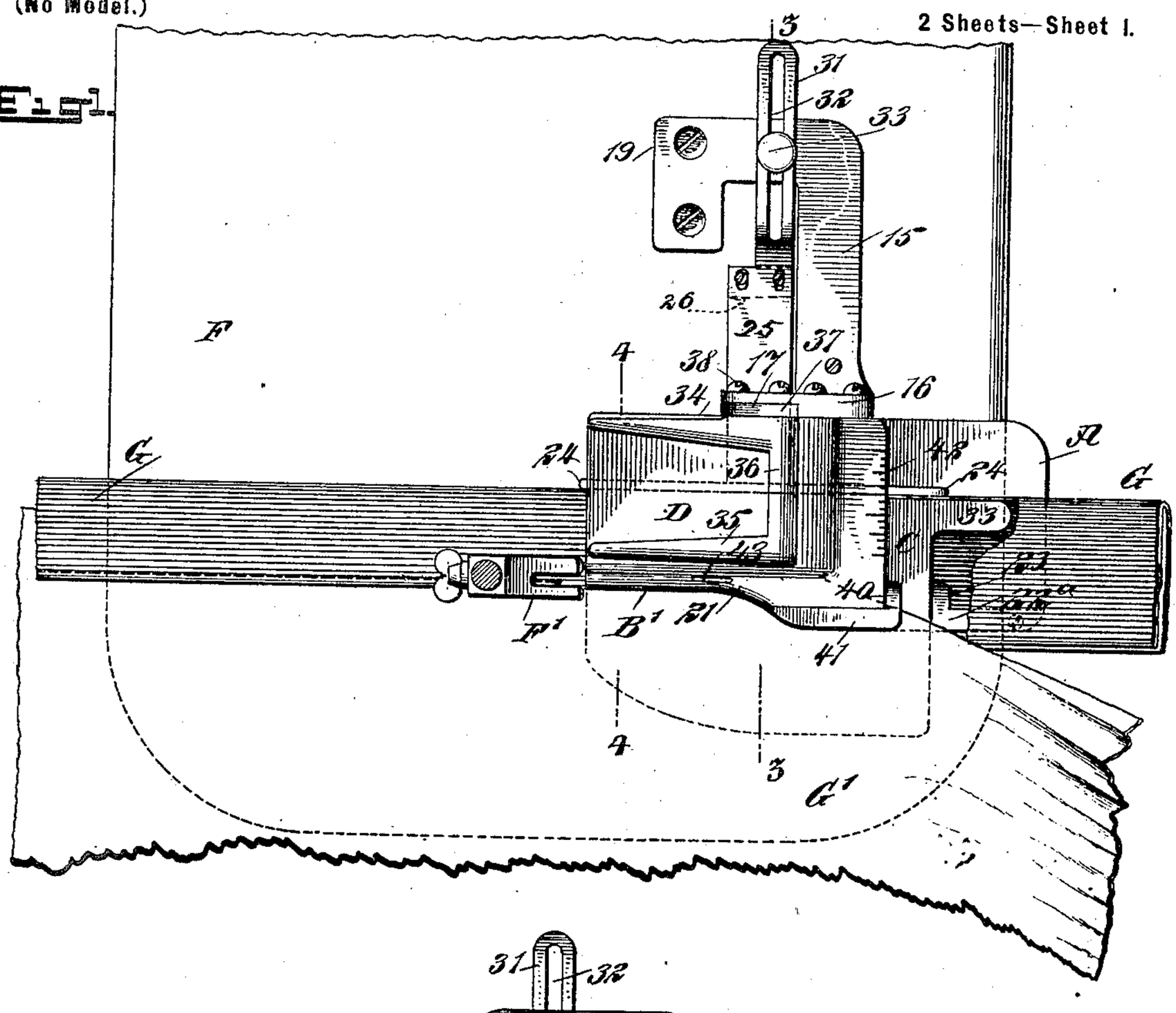

Fig. 2.

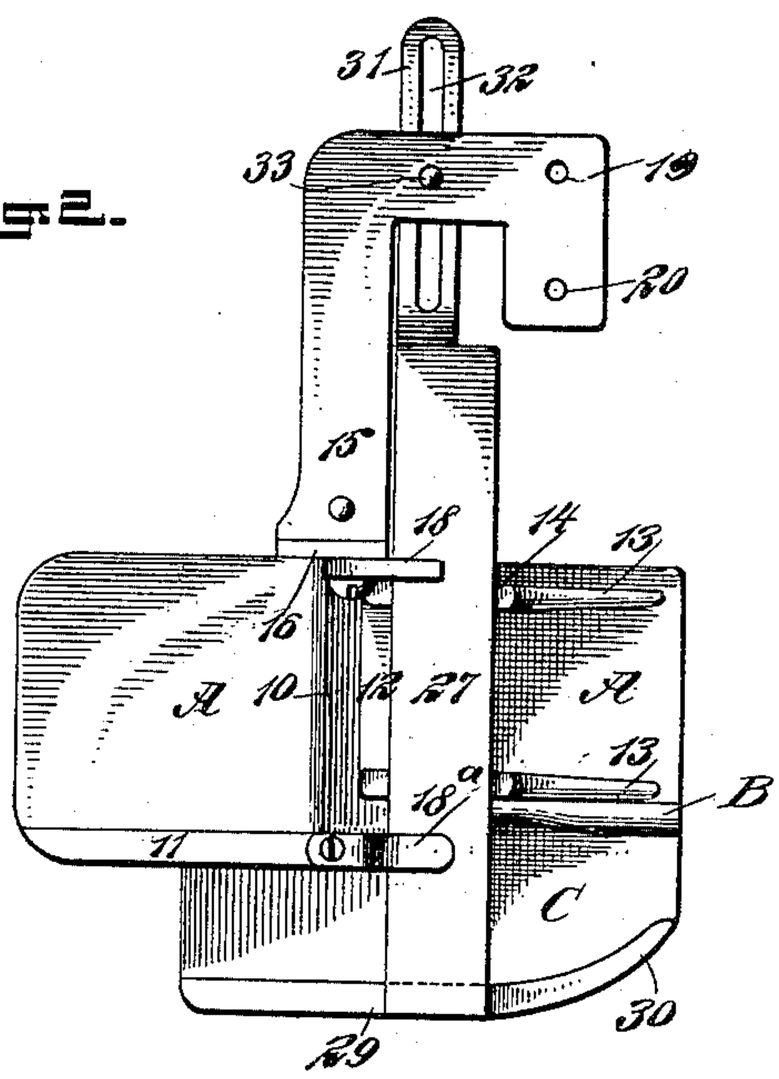

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Fig 3.

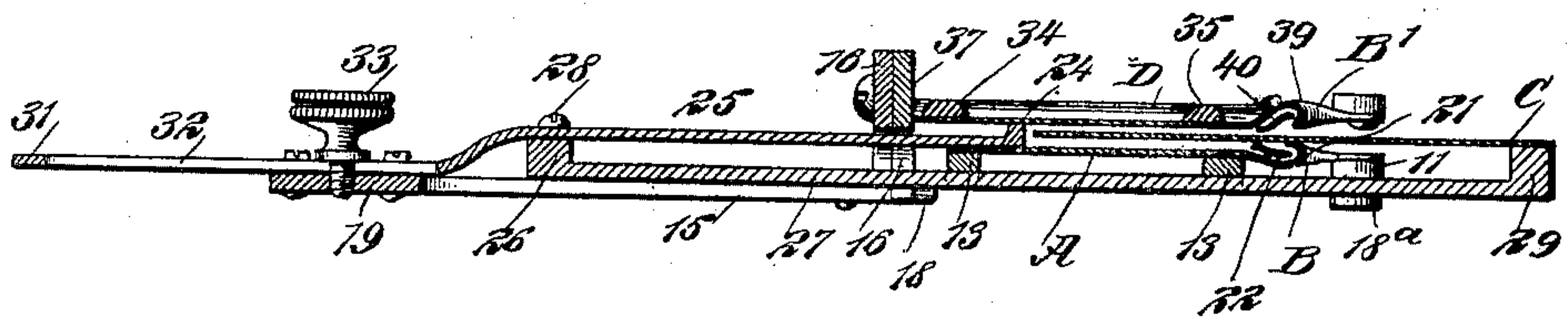


Fig 4.

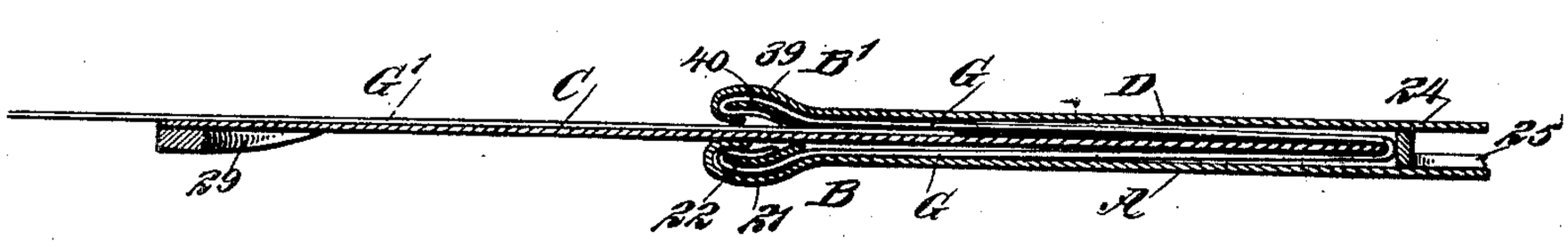


Fig. 5.

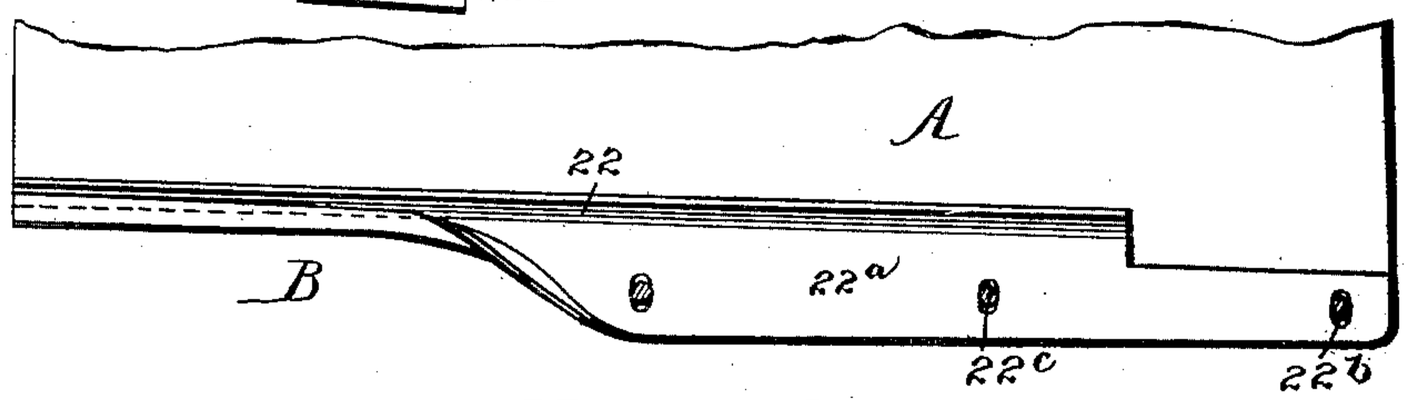
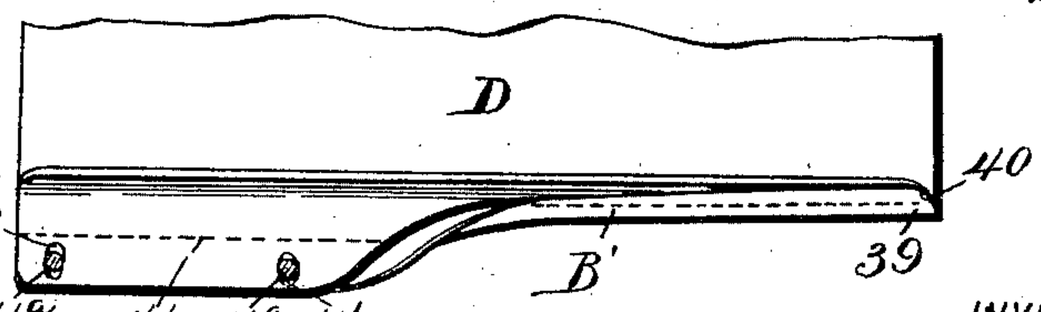


Fig. 6.



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UNITED STATES PATENT OFFICE.

THOMAS F. DENNISON, OF BROOKLYN, NEW YORK.

HEMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 706,223, dated August 5, 1902.

Application filed June 22, 1901. Serial No. 65,630. (No model.)

To all whom it may concern:

Be it known that I, THOMAS F. DENNISON, a subject of the King of Great Britain, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Hemming Attachment for Sewing-Machines, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide an attachment for sewing-machines adapted for making a hem on linen, silk, or cotton goods, handkerchiefs, garments, and the like and to provide means for adjusting the device so that the hem may be of different widths, ranging from about an eighth of an inch upward.

A further purpose of the invention is to so construct the scroll that it may be readily and quickly adjusted to goods of different thickness and to construct the attachment in a simple yet durable manner and of a size convenient to operate and to apply to a machine.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of the attachment. Fig. 2 is a bottom plan view drawn upon a smaller scale. Fig. 3 is a section taken practically on the line 3 3 of Fig. 1. Fig. 4 is a section taken substantially on the line 4 4 of Fig. 1. Fig. 5 is a detail view of a portion of the upper surface of the base-plate, showing the scroll and curved tongue and means for adjustably securing the shank of the tongue to the base-plate; and Fig. 6 is a detail view of a portion of the under surface of the upper plate, showing the scroll and curved tongue and means for adjustably connecting the tongue to the upper plate.

A represents a base-plate, which is preferably made of thin steel, and this base-plate A is wider at one end portion than at the other, as is best shown in Fig. 2. At or near the center of the base-plate a transverse depression is formed in the under face of the narrower portion, so that at the top of the base-plate the narrower section thereof is elevated above the wider section. This elevation is approached by an inclined plane 10. A cross-bar 12 is located at the point where one surface of the base-plate rises above the other, and this cross-bar 12 is secured to the under face of the base-plate and is provided with longitudinal connecting-bars 13, which extend longitudinally of the under face of the narrower portion of said base-plate, as is shown in Fig. 2. These longitudinal bars 13 are provided with recesses 14 at their inner end portions to constitute slideways for a bar to be hereinafter described. A tongue 15 is connected with the base-plate through the medium of a longitudinal bearing-plate 16, attached to the inner end of the cross-bar 12 at the inner longitudinal edge of the base-plate A. This bearing-plate extends slightly below the base-plate and some distance above the upper surface of the said base-plate, and the upper portion of the bearing-plate 16, as shown in Fig. 1, is provided at its outer face with a recess 17, forming thereby a reduced section, as is shown in Fig. 1. A button 18 is adjustably secured to the lower projecting portion of the bearing-plate 16 to hold a bar, to be hereinafter described, in position in the recesses or slideways 14 in the longitudinal brace-bars 13 at the bottom of the base-plate A.

At the outer longitudinal edge of the wider portion of the base-plate A a reinforcing-strip 11 is secured, and on this reinforcing-strip a second button 18^a is located, adapted for the same purpose as the button 18, just referred to. The tongue 15 is provided with an L extension 19 at its inner end, and this extension is provided with apertures 20, through which set-screws are passed to hold the attachment to the bed-plate of a sewing-machine.

At the outer edge of the narrower portion of the base-plate A a scroll B is formed. This scroll is constructed by downwardly depressing the metal at the outer edge of the narrower portion of the base-plate and then curving the metal at the extreme outer edge of said plate upward and inward, forming thereby the lower section 21 of the scroll, which lower section is outwardly flared to a greater or less extent in the usual manner where the said section connects with the outer edge of the wider portion of the said base-plate. The

upper member 22 of this scroll consists of a transversely-curved tongue, which is adjustably fitted in the depressed lower portion 21 of the scroll, and this upper member is provided with a shank-section 22^a, adjustably attached to the wider portion of the said base-plate by screws 22^b, passing through elongated openings 22^c in the shank-section of the tongue and engaging the base-plate, as shown in Fig. 5, and in this shank 22^a a shoulder 23 is formed, as shown in Fig. 1. The inner edge of the upper section is inclined upwardly from the shoulder to the opposite end portion of the tongue.

A guide-bar 24 is held to travel upon the upper face of the base-plate, conforming thereto, and this guide 24 is provided with a shank 25, which extends inward longitudinally of the tongue 15 of the base-plate and is adjustably attached, through the medium of suitable screws 28, passing through elongated slots, to the cross-bar 26, located at the inner end of a supporting-bar 27 for the gage-plate, which bar slides in the recesses 14 of the longitudinal bars 13 of the base-plate and beneath the buttons 18 and 18^a, as is shown in Figs. 2 and 3.

A gage-plate C is attached at the central portion of its outer edge to the outer end of the supporting-bar 27. The gage-plate C is provided with a reinforcing-strip at this central point, and preferably one outer end portion of the gage-plate C is more or less rounded—namely, that portion which is adjacent to the lower scroll B. The gage-plate C extends over the top of the base-plate, and the guide-bar 24 is brought as close as may be necessary to the inner longitudinal edge of the gage-plate, as when the hem is formed the material is passed over the gage-plate at the inner longitudinal edge thereof and is carried up between such edge and the guide 24. It will be observed the guide and gage-plate slide together on the base-plate to and from the lower scroll B and an upper scroll B′, to be hereinafter described. By moving the gage-plate and guide on the base-plate the width of the hem may be regulated—that is to say, an exceedingly narrow hem may be formed or a very wide hem.

The shank 25 of the hem-guide 24 is provided with an extension 31, and this extension has a longitudinal slot 32 made therein, through which slot a thumb-screw 33 is passed into a suitable opening in the L extension 19 of the tongue extending from the base-plate. Under this arrangement it is obvious that the combined guide and gage-plate after they have been adjusted on the base-plate may be effectually held in their adjusted position.

In connection with the base-plate and the guide-plate an upper plate D is employed. This upper plate corresponds in shape to the base-plate, but is of less length and extends over the guide 24. The top plate D is stationary and is provided with longitudinal reinforcing-ribs 34 and 35, connected by a transverse reinforcing-rib 36, and the frame thus produced carries an upward extension 37, which is adjustably attached to the recessed portion 17, extending upward from the point where the tongue 15 connects with the inner edge of the base-plate, as is best shown in Fig. 1. A scroll B′, heretofore referred to, is formed at the outer longitudinal edge of the top plate, the upper section 39 of the scroll being curved from the bottom of the plate, and the outer longitudinal edge of this portion is carried inward beneath its body, as shown in Fig. 4. The curvature or trough thus formed by the upper member 39 of the upper scroll receives a downwardly-arched tongue 40, adjustable in the upper member of the said upper scroll. This tongue is usually attached to the under face of a reinforcing-strip 41 at the wider or front end of the top plate, since that portion of the plate is wider than the rear end or the end where the completed hem passes from the attachment, and the tongue is adjustably connected with said reinforcing-strip by screws 41^a, passing through elongated slots or openings 41^b in the tongue and engaging the reinforcing-strip, as shown in Fig. 6. The said tongue extends outward beyond the forward edge of the top plate and is slightly downwardly curved at its inner longitudinal edge. The two scrolls B and B′ are one above the other and are separated by a gage-plate C, which has transverse movement between them. Preferably a slot 43 is made in the upper member of the upper scroll B′, into which slot a pin, needle, awl, or other sharp instrument may be introduced to assist the entering of flimsy goods between the members of the scroll. The members of the scroll are made adjustable relative to each other in order that the attachment may be used with equally good effect upon thin or upon thick material.

A scale 42 is produced at the forward end of the top plate D in order that the width of the hem may be readily determined. As heretofore stated, the width of the hem is regulated by the movement of the gage-plate C and guide 24. The closer the guide is brought to the scrolls the narrower will be the hem; but when the guide is carried inward or away from the scrolls the width of the hem is increased.

In operation the material from which the hem G is to be formed is passed around the inner longitudinal edge of the gage-plate C and over the top and bottom of the said plate, and the longitudinal edges of the material are made to enter the scrolls. The gage-plate is provided with an extension or finger 33 at its forward end portion to serve as an extra guide for the material to be formed into a hem. After the material to be formed into a hem has been passed through the scrolls the body material G′ or material to which the hem is to be attached is passed between the top of the gage-plate and the forward longitudinal edge of the top plate, so that the edge

of said body material will be between the two inturned portions of the formed hem as it leaves the attachment. Thus the body material and formed hem will be stitched together by the needle, the usual presser-foot F′ being used, as shown in Fig. 1, and the attachment is secured to the usual bed-plate F of the machine.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A sewing-machine attachment, comprising a base-plate, adapted for attachment to a sewing-machine and having transverse guideways formed in its under face, an upper plate carried by the support for the base-plate, each plate being provided with a folding-scroll, a gage-plate adapted to be adjusted between the scroll-carrying plates to regulate the width of a hem, an adjusting supporting-bar for the gage-plate and movable in the guideways on the under face of the base-plate, means for holding the supporting-bar in position in the guideways and a hem guide-bar mounted to travel on the upper face of the base-plate, and connected with the supporting-bar for the gage-plate, as set forth.

2. In a sewing-machine attachment a stationary lower or base plate having means for attachment to a sewing-machine, one end portion of said base-plate being elevated above the other, guideways formed on the under face of the elevated portion of the base-plate, an upper stationary plate carried by the support for the base-plate, folding-scrolls carried by the upper plate and base-plate, the two scrolls having position one above the other, a gage-plate for a hem adjustable transversely between the upper and lower plates, a hem guide-bar mounted on the base-plate, a supporting-bar to which the gage-plate is secured, the said supporting-bar being adjustable in the guideways on the under face of the base-plate, and means for holding the supporting-bar in position in the guideways, the hem guide-bar being adjustably connected with the said supporting-bar, as described.

3. In a sewing-machine attachment, the combination with a stationary lower or base plate having guideways formed on its under face, a bearing-plate connected with the inner longitudinal edge of the base-plate and extending above the same, an upper stationary plate having an upward extension secured to the bearing-plate, and corresponding turning-scrolls carried by the base-plate and the upper plate, of a gage-plate adjustable to and from the scrolls to form a wide or a narrow hem, a supporting-bar for the gage-plate adjustable in the guideways on the under face of the base-plate, and buttons secured respectively to the base-plate and the lower projecting portion of the bearing-plate and arranged to hold the supporting-bar in position in the said guideways, as set forth.

4. A sewing-machine attachment, comprising an upper plate and a lower or base plate each provided with a folding-scroll, one end portion of the base-plate being elevated above the other, longitudinal brace-bars on the under face of the elevated portion of the base-plate and provided with recesses forming guideways, a gage-plate adjustable between the scroll-carrying plates, a supporting-bar for the gage-plate adjustable in the said guideways transversely of the base-plate, and buttons for holding the said bar in position in the guideways, as set forth.

5. A sewing-machine attachment comprising two plates each provided with a scroll having a plate curved transversely and forming a portion of the scroll, the curved plate extending longitudinally of the scrolls and adjustable transversely, and a gage-plate having movement between the scroll-carrying plates and adapted to regulate the width of a hem, as described.

6. In a sewing-machine attachment, a lower or base plate, a scroll carried by said base-plate, a transversely-curved plate fitted longitudinally in the scroll and adjustable transversely of the same, an upper plate provided with a similar scroll and adjustable curved plate, oppositely arranged, a gage-plate adjustable between the scroll-carrying plates to regulate the width of a hem, and means for adjusting the gage-plate, substantially as described.

7. A sewing-machine attachment, comprising a lower or base plate having a guideway in its under face, a tongue connected with the base-plate and having an L extension at its inner end provided with apertures for securing the attachment to the sewing-machine, a turning-scroll on said base-plate, an upper stationary plate having a scale at its forward end, a turning-scroll forming a portion of said upper plate, a gage-plate mounted to slide between the upper and lower plates, a supporting-bar secured to the outer edge of the gage-plate and adjustable in the guideway in the under face of the lower or base plate, and a hem guide-bar mounted on the base-plate and provided with a shank extending longitudinally of the tongue of the base-plate, the said shank being attached to the inner end of the supporting-bar secured to the gage-plate, and having an extension arranged for adjustable connection with the L extension of the tongue of the base-plate, as set forth.

8. A sewing-machine attachment, comprising a lower or base plate wider at one end portion than the other, the outer edge of the narrow portion of the base-plate being downwardly depressed and then curved upward and inward at the extreme outer edge forming a scroll, a transversely-curved plate adjustably fitted in the depressed portion of the scroll, an upper plate provided with a similar scroll and adjustable curved plate oppositely arranged, and a gage-plate adjustable between the scroll-carrying plates and adapted to regulate the width of a hem, as described.

9. In a sewing-machine attachment a lower

or base plate provided with a scroll having a fixed member and a member adjustable relative to the fixed member and comprising a transversely-curved plate fitted in the fixed member and having a shank for adjustable connection with the base-plate, and an upper plate provided with a similar scroll having its movable member adjustably connected with said upper plate, as set forth.

10. A sewing-machine attachment comprising an upper stationary plate having a scale formed at its forward end, a stationary lower or base plate, folding-scrolls carried by said plates and arranged one above the other, a gage-plate adjustable between the scrolls and provided with an extension or finger at its forward end portion to serve as an extra guide for the material to be formed into a hem, means for guiding the movement of the gage-plate and securing the same in adjusted position, and a guide-bar for the hem adjustable toward and from the inner longitudinal edge of the gage-plate, and movable with said gage-plate, substantially as described.

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

THOMAS F. DENNISON.

Witnesses:
J. FRED. ACKER,
JNO. M. RITTER.