

(No Model.)

R. S. BARNUM.
HEMMER FOR SEWING MACHINES.

No. 569,368.

Patented Oct. 13, 1896.

Fig. 1.

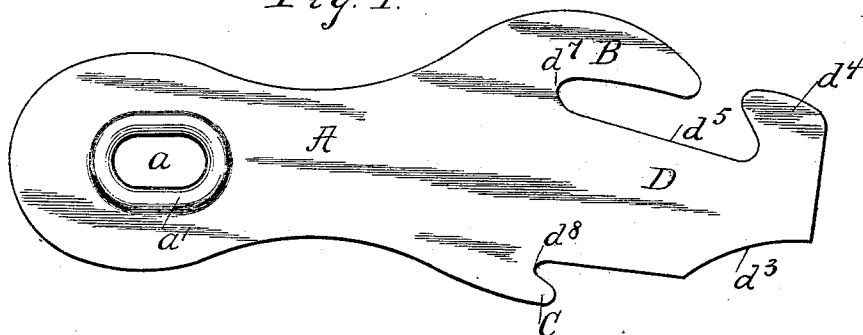


Fig. 2.

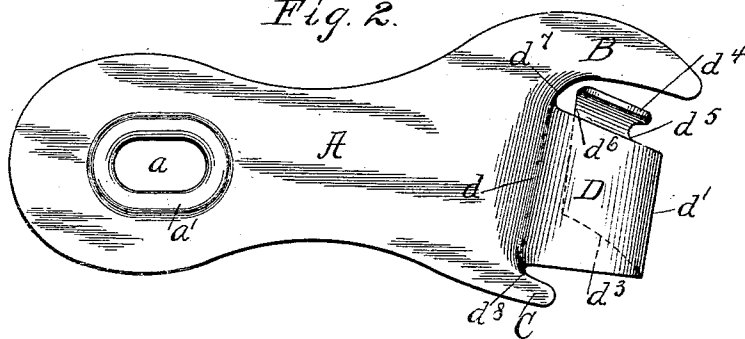


Fig. 3.

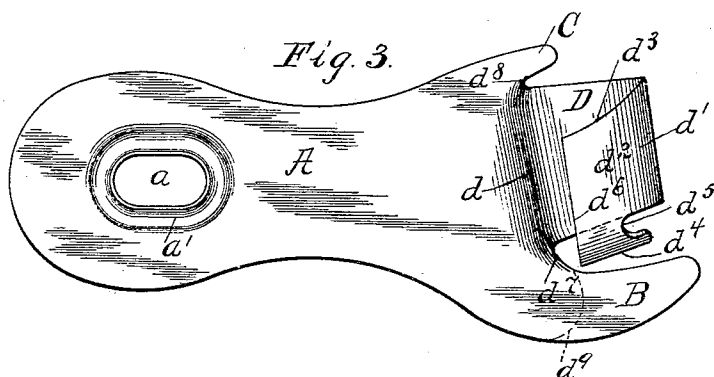
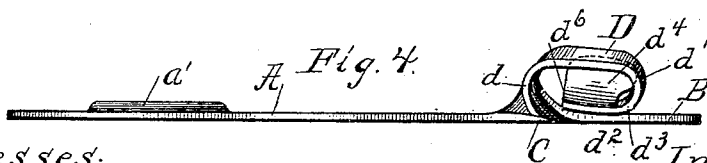


Fig. 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

RUSSELL S. BARNUM, OF CHICAGO, ILLINOIS, ASSIGNOR TO FRANK L. GOODRICH, OF SAME PLACE.

HEMMER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 569,368, dated October 13, 1896.

Application filed September 12, 1892. Serial No. 445,661. (No model.)

To all whom it may concern:

Be it known that I, RUSSELL S. BARNUM, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Hemmers for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

My invention relates to that class of sewing-machine attachments known as "hemmers," designed to turn the edges of fabrics to form the lap for the hem as the fabric is fed to the needle of a sewing-machine; and the object of my invention is to produce a hemmer out of a single piece of metal—that is to say, to produce a hemmer having its scroll and all other parts integral with the body portion or shank of the attachment, thus materially simplifying and cheapening and at the same time strengthening the construction of the hemmer.

In sewing-machine hemmers two general forms of attachment have been used, to wit: that known as the "foot" or "presser-foot" and that known as the "bed-plate." In the former the hemmer is positioned longitudinally of its length in front of the presser-foot, that is, between the presser-foot and the operator, while in the second or bed-plate form of attachment a shank extends generally at right angles to the length of the hemmer and serves as a means for uniting the hemmer to the table or bed of the sewing-machine, a screw passing through an aperture or a slot in the shank being generally used. In the bed-plate hemmers, where the scroll is raised up from the shank, that is, made integral therewith, it frequently happens that the cloth, instead of passing directly through the scroll, will enter the space beneath the forward end of the shank and the bed of the machine. To prevent this difficulty in this particular class of hemmers is one of the objects of my invention.

A further object of the invention is to so shape and construct the attachment as to enable it to be constructed of so desirable a material as steel, thus dispensing with the

employment of very thin brass and similar flimsy materials which have heretofore necessarily been used in the construction of this class of sewing-machine attachments.

To the above purposes my invention consists in the various novel features of construction and arrangement and in the novel method of construction, as hereinafter described, and more specifically stated in the appended claims.

In order that my invention may be fully understood, I will describe it with reference to the accompanying drawings, in which—

Figure 1 is a plan view of a blank from which is formed a hemmer embodying my invention. Fig. 2 is a plan view of a hemmer embodying the invention. Fig. 3 is an inverted or bottom plan view of the same. Fig. 4 is a side or edge view of the same.

Referring now to the drawings, A designates the shank or body portion of the hemmer, which shank is in the form of a flat plate suitably elongated and preferably of greater width at its ends than at its middle. What may be termed the "rear" end of the shank, as distinguished from that end which is formed with the folding loop or scroll and guard-arms and which is presented toward the sewing-machine needle when in position for use, is formed midway of its length with an elongated opening or slot *a*, which extends longitudinally of the shank and which is raised upward marginally, as shown at *a'*. This elongated opening or slot *a* is designed to receive the usual clamping-screw (not shown) which is carried by the bed-plate of a sewing-machine and which passes through the opening or slot *a* and clamps the hemmer in proper position relative to the sewing-machine needle.

At one side of the opposite or front end of the shank A is formed the front guard-arm B, which is wholly integral with the said shank and which projects forward from the front thereof contiguous to the front margin of the shank, the outer or front margin of this guard-arm swelling outward in segmental form. A much shorter or rudimentary projection C constitutes the rear guard-arm of the hemmer, this rear guard-arm being also formed wholly integral with the shank A of the hem-

mer and extending forwardly therefrom contiguous to the rear margin thereof. While I prefer to use both the arms B and C, this is not necessary, and in some cases I may dispense with the arm C. Intermediately of these front and rear guard-arms B and C is placed the folding loop or scroll D of the hemmer, all of the parts of scroll being integral with each other. The scroll is united integrally to the front end of the shank A, as shown, and extends longitudinally outward from the front end of and above the plane of said shank, as shown.

In the particular construction of scroll shown, at the point where its rear or inner end merges into the outer or front end of the body portion or shank A, said scroll rises upwardly and outwardly from the shank, as shown at d . Thence the upper or body portion of the scroll extends outward and slightly downward in an approximately straight line and gradually decreasing in width to a slight extent, as shown. The outer end of the upper or body portion of the scroll is then bent abruptly downward and inward, as at d' , and is then turned horizontally inward beneath the upper or body portion to form the lip d^2 . This lip d^2 is straight or flat, and its rear margin preferably extends obliquely inward and forward quite acutely, thus forming a curved margin d^3 , as shown. The opposite or front side of this lower portion or lip d^2 is formed with a laterally-enlarged extension d^4 , which projects obliquely upward and forward, so as to protrude somewhat in front of the inclined front margin d^5 of the body portion of the scroll. The inner margin d^6 of the loop is substantially parallel with a line drawn at d transversely of the shank of the hemmer.

At the point of juncture d of the front margin of the scroll D with the shank A is formed an upwardly-extended segmental curve or swell d^7 , while at the point of juncture of the rear margin of the scroll with the shank A is formed a second but shorter segmental curve or swell d^8 , these curves or swells serving to carry the material into and out of the scroll and also, in conjunction with the guard-arms B and C, to prevent the fabric from passing beneath the shank A of the hemmer.

I do not propose to be limited to the precise details of construction herein illustrated and described, although the hemmer shown is offered as a desirable and preferable form in all its details.

When the hemmer thus constructed is properly clamped upon the bed-plate of a sewing-machine, the edge or margin of the material is fed into the scroll or loop over the front guard-arm B and out of said loop over the rear guard-arm C, the segmental curves or swells d^7 carrying the edge of the fabric in properly-lapped position, so as to surround the extension d^4 . The guard-arms B and C

lie flat upon the bed-plate of the sewing-machine and render it impossible for the fabric to work between the bed-plate and the shank.

It will be seen that I have produced a hemmer all of the parts of which are integral with the shank and which is of rigid material, so as to prevent distortion of the parts and to insure perfect uniformity of shape and operation.

While the guard-arm B is desirable and is preferred, still it may be dispensed with in some instances. For example, the shank may be terminated substantially as shown in dotted lines at d^9 , in which event the swell d^7 serves very well to guide the fabric into the scroll D and to prevent the fabric from slipping under the shank. The swell d^7 , by reason of its peculiar plow shape, is found in practice to be very desirable in starting the cloth through the hemmer and in guiding it on its way, while a similar swell d^8 serves as a guide to assist the easy exit of the cloth and thus prevent it wedging or dragging.

I claim as my invention—

1. A bed-plate hemmer for sewing-machines consisting of a single piece of sheet metal, and comprising a shank, a scroll extending across one end thereof, the same being formed by bending the end portion of the metal upwardly into an offset plane and then downwardly and inwardly with its extremity directed toward the shank and in a plane above the level of the shank, whereby no part of the shank extends beneath the scroll and a space is left between the latter and the bed-plate for the passage of the fabric, and a guard-arm formed in prolongation of and in the same plane with a shank, said arm being arranged to extend transversely of the scroll and at a distance therefrom.

2. A bed-plate hemmer for sewing-machines consisting of a single piece of sheet metal and comprising a shank, a scroll extending across one end thereof, said scroll being formed by bending the end portion of the metal upwardly into an offset plane and then downwardly and inwardly with its extremity directed toward the shank and into a plane above the level of the shank, whereby no part of the shank extends beneath said scroll and a space is left between the latter and the bed-plate for the passage of the fabric, and two guard-arms formed in prolongation of and in the same plane with the shank, said arms being arranged to extend at opposite ends of the scroll transversely to the latter and at a distance therefrom.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

RUSSELL S. BARNUM.

Witnesses:

TAYLOR E. BROWN,
GEORGE W. HIGGINS, Jr.