(No Model.)

J. M. GREIST.

ATTACHMENT HOLDER FOR SEWING MACHINES.

No. 504,876. Patented Sept. 12, 1893.

Fig. 1.

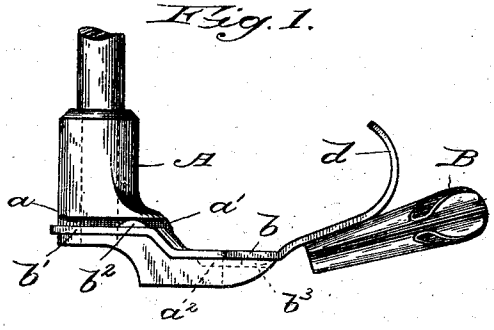


Fig. 2.

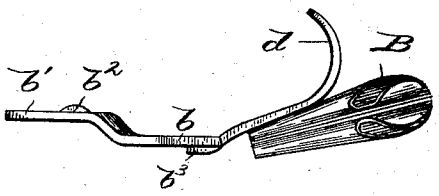


Fig. 3.

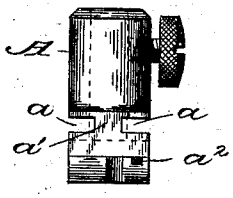
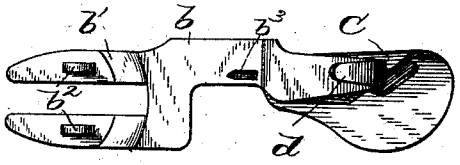


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOHN M. GREIST, OF NEW HAVEN, CONNECTICUT.

ATTACHMENT-HOLDER FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 504,876, dated September 12, 1893.

Application filed December 14, 1892. Serial No. 455,184. (No model.)

To all whom it may concern:

Be it known that I, JOHN M. GREIST, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Attachment-Holders for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

In connecting the various kinds of attachments to sewing machines a very convenient way of attaching the same in operative positions relative to the needles of the machines is by securing the same to the presser feet of the machines. This has heretofore been done in various ways, but one of the most convenient and reliable modes of attachment is to provide the presser foot or the shank thereof with grooves on opposite sides of the foot or shank portion and between which grooves is a neck of metal, said neck being embraced by a bifurcated bracket formed on the holding portion or shank of the attachment, the arms of said bifurcated bracket fitting in the grooves of the presser foot or its shank. There has, however, heretofore existed a certain objection to this mode of securing attachments to the presser feet of sewing machines owing to the fact that the sheet metal from which it is desirable to form some of the attachments is much thicker than that from which the shank or holding portions of other attachments of the same set is or should be made. Thus when such attachments as rufflers and tuck markers, which are operated from the needle bars of the machine, a supporting plate of comparatively thick sheet metal is desirable, the bifurcated attaching bracket being struck out directly from such thick sheet metal. With this thick sheet metal it is necessary that the grooves in the presser foot or its shank, which grooves receive the arms of the bifurcated bracket, should be of sufficient depth to permit the use of this thick sheet metal; but in securing other attachments, such as hemmers and binders, in place, it is desirable to form the shanks or holding portions thereof of thin sheet metal, not only on the ground of economy in making these attachments, but also for the reason that it is desirable to have the shank portion thereof sufficiently elastic to prevent it from working loose, or to avoid accidental displacement when in operation.

The object of the invention is therefore to provide such a construction of the shank or holding portions of these attachments, in which it is desirable to form said shank or holding portions of thin sheet metal, that the bifurcated attaching portions of said shanks will properly fit grooves in the presser foot which have a greater depth than the thickness of said shanks. This object I accomplish simply by striking up or otherwise forming on the said shank or holding portions slight lugs, these lugs being of just sufficient height to compensate for the difference between the thick sheet metal, from which the holding portions of the rufflers, tuck markers, &c., of the set of attachments are formed, and the thin sheet metal from which the shanks of the binders, hemmers, &c., are formed.

In the accompanying drawings Figure 1 is a side view of a presser foot with a binding attachment embodying my invention secured thereto in operative position. Fig. 2 represents the binder separated from the presser foot. Fig. 3 is a front view of the presser foot, and Fig. 4 is a plan view of a hemmer attachment embodying my invention.

A denotes a sewing machine presser foot provided at its shank portion with grooves a between which is a neck of metal a'.

B denotes a binding attachment secured to a holding shank or arm b, the rear portion of which is formed as a bifurcated bracket b', the arms of which are of such size as to enter the grooves a in the presser foot and closely embrace the neck a' of metal between said grooves. The holding shank of the attachment is formed of thin sheet metal from which the bifurcated bracket portion thereof is struck out, the said sheet metal being of a less thickness than the depth of the grooves a of the presser foot. To compensate for the difference between the depth of the said grooves and the thin sheet metal from which the holding shank of the attachment is made I form, preferably by striking up from the metal constituting the bifurcated bracket portion thereof, small lugs b^2 which are of a height sufficient to compensate for the difference between the depth of said groove and the thickness of the metal of the holding shank of the attach-

ment, said lugs being preferably rounded on their upper sides, as shown, so that they will readily enter the grooves in the presser foot.

C denotes a hemmer which is secured to a holding shank b having a bifurcated bracket portion b' provided with lugs b^2 formed the same as are the lugs on the holding shank of the binder B.

The bifurcated portions of the attachments are intended to enter the grooves of the presser foot and closely embrace the neck of metal between them, the parts being so constructed as to permit the attachments to be held in place by friction merely, without requiring any set screws for securing them in place. With this frictional attachment, however, some little force is required in removing the attachments from the presser foot of the machine, and to permit of the requisite force being applied thereto in removing the same, without straining the attachments, I provide the holding shanks with upturned finger pieces d which receive the pressure of the finger of the operator in withdrawing the attachments from their operative positions, thereby avoiding such strain on the attachments as would be liable to bend or otherwise injure the same.

To hold the attachment more firmly in place and prevent lateral movement thereof the presser foot is provided in its upper side with a longitudinal groove a^2 in which fits a small downwardly extending lug b^3 formed on the shank or arm b of the attachment.

The groove a^2 is at the outer end or toe portion of the presser foot, and is open at its end so that it may be entered by the lug b^3 as the attachment holding shank or arm b is slid into place in its working position. The bifurcated bracket portion b' of the attachment holding arm and the lugs b^2 thereon fit with sufficient tightness in the grooves a of the presser foot to hold the attachment in place by friction. As the work is moved forward in the attachment the draft upon the latter is toward the presser foot, and there is therefore no danger of longitudinal displacement of the attachment holder, as the draft of the work is in opposition to the direction in which the holder must be moved in removing it from the presser foot.

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

1. The combination with a presser foot provided with oppositely placed grooves between which is a neck of metal, of an attachment having a holding shank provided with a bifurcated portion formed of sheet metal of a lesser thickness than the depth of said grooves, said bifurcated portions being provided with lugs to compensate for the difference between the thickness thereof and the depth of said groove.

2. The combination with the presser foot provided with oppositely placed grooves between which is a neck of metal, of an attachment having a holding shank provided with a bifurcated portion formed of sheet metal of a lesser thickness than the depth of said grooves, said bifurcated portion being provided with struck-up lugs having rounded upper surfaces, said lugs serving to compensate for the difference between the thickness of the metal of the bifurcated holding portion thereof and the depth of said groove.

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

JOHN M. GREIST.

Witnesses:
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