Feb. 8, 1927. 1,616,637

N. A. RANKIN

BRAIDING ATTACHMENT

Filed Nov. 4, 1925

Fig. 1.

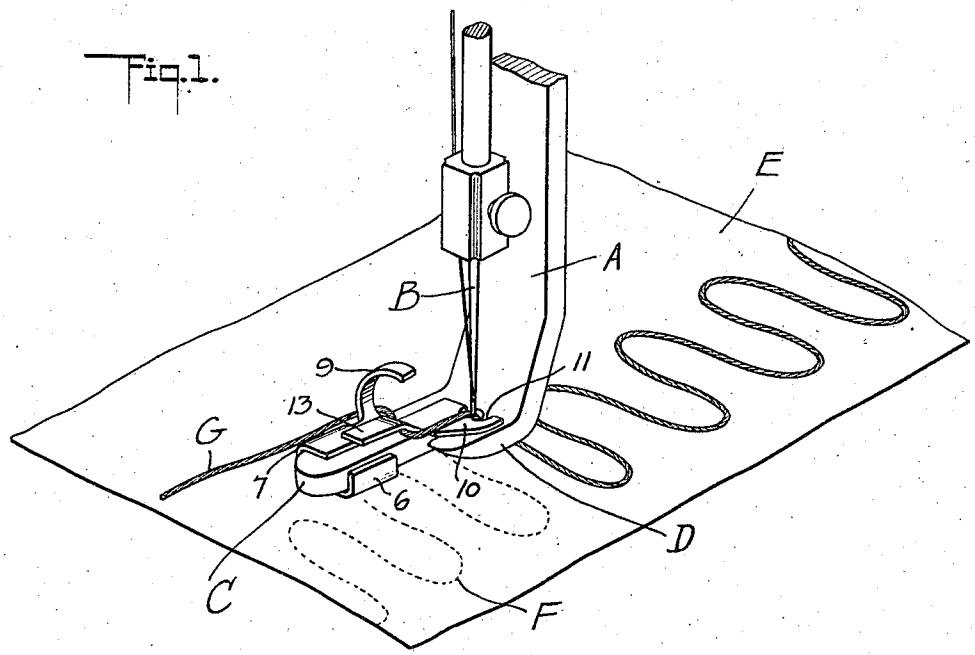


Fig. 3.

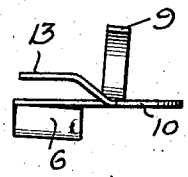


Fig. 2.

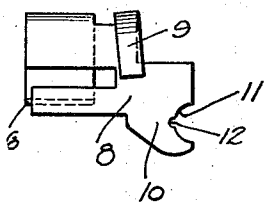
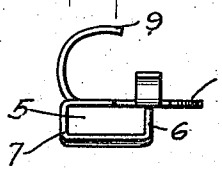


Fig. 4.



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UNITED STATES PATENT OFFICE.

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BRAIDING ATTACHMENT.

Application filed November 4, 1925. Serial No. 66,801.

This invention relates to braiding attachments for use in connection with sewing machines for applying a braid or the like to the surface to be ornamented or decorated, and an object of the invention is to provide a device of this character which can be readily adjusted to the foot of a machine and positioned with regard to the needle so that the braid will directly underlie the same in order that it may be permanently attached to the goods during the sewing operation.

Another object of the invention is to provide a device of this character which will cause the braid to be fed to the needle in a manner that will dispose same in the direct line of vision at all times and permit the pattern upon the goods to be clearly discernible or unobstructed and at the same time position the braid under the needle in vertical alinement therewith.

Another object of the invention is to provide a device of this character with means to compensate itself to braids of respectively different widths and accurately position same under the needle.

A still further object of the invention is to provide a device of this character which is simple of construction and designed so that it can be quickly and firmly secured to the foot of the machine and easily threaded as desired.

With the above and other objects in view, the invention consists in the features of construction, combination and arrangement of parts which will be hereinafter described and claimed, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of a portion of the foot of a sewing machine showing an application of my improved braider thereto;

Figure 2 is a top plan view of the braiding device;

Figure 3 is a side elevation thereof; and

Figure 4 is a front elevation thereof.

The invention is designed for use in connection with sewing machines employing the customary foot A and vertically reciprocating needle B. The base of the foot is formed with relatively graduated portions C and D which are spaced apart to accommodate the movements of the needle.

My attachment is preferably stamped from a single piece of suitable sheet metal formed to provide what I shall refer to as a split sleeve 5 of substantially rectangular formation in transverse section, so as to slidably accommodate itself upon the long portion C of the foot A. One side 6 of the sleeve is relatively springy and same is tapered in one direction with respect to the wall 7. In this manner considerable friction is induced between the parts 6, wall 7 and the adjacent side surface of the portion C, whereby to hold the device in its position of adjustment.

The sleeve is formed as an integral part of a body portion 8 having upstruck therefrom at one side an upwardly and inwardly curved guide 9 offset with respect to the longitudinal axis of the body portion 8. Also offset from and formed as an integral part of the body 8 is a portion 10 having a large recess 11 and an intercommunicating small recess 12 adapted to be respectively correlated with the needle B to permit the latter to operatively function and coact with a braid when arranged beneath the plane of the needle, as will be hereinafter explained. Struck up from the body 8 is an intermediate braid guide 13 which opens in a forward direction, as clearly illustrated in Figures 1 and 3.

E represents a piece of material having a pattern F arranged thereon upon which the braid is to be worked. As illustrated in Figure 1, the material is arranged under the foot of the machine so that it may be fed in a forward direction simultaneously with the process of attaching the braid thereto. The braid G shown in Figure 1 is extended from a source of supply and passed over the guide 9 and adjusted with respect thereto so as to occupy a relatively permanent position near the base thereof. From this point the braid passes under the aforesaid intermediate guide 13 and thence to one or the other of the recesses 11 and 12 in the portion 10 of the device. In this manner it will be appreciated that as the front end of the braid is drawn through its respective recess in the portion 10 it will be disposed directly under the needle B in vertical alinement therewith so as to be pierced thereby as the needle functions. As stated, the guide 9 is offset with respect to the recesses in the portion 10 and in consequence thereof the recesses in said portion are always exposed in the line of vision of the operator while the intake end of the braid is disposed at a plane relatively offset with respect to the needle to

enable the pattern portion upon the material to be worked to be always clearly discernible in order that the markings thereof may be accurately followed during the braiding operation.

The device is so constructed that it may be quickly applied to or disconnected from the foot of the machine as desired, and when applied the braid G may be fed constantly and with accuracy under the needle at all times. This insures vertical registration of the needle with the braid so that the latter may be stitched to the material E as the latter is fed under the foot in the customary manner. By providing recesses 11 and 12 in communication with each other as herein set forth, it is appreciated that braids of relatively different widths will compensate themselves to the needle B.

What I claim is:

1. A braiding attachment for sewing machines comprising a member for engaging a prong of the presser foot of a sewing machine, a body portion having a braid receiving recess the axis of which is parallel to the line of feed of the braid to the needle, and co-acting guide members at one side of the axis of said recess about which the braid is trained in advance of the recess so that the braid is fed laterally into the line of feed to the recess, whereby the supply of braid is maintained in a position at one side of the attachment so as to enable the pattern portion of the material being worked to be clearly discernible.

2. A braiding attachment for sewing machines comprising a member for engaging a prong of the presser foot of a sewing machine, a body portion having a braid receiving recess, the axis of which is parallel with the line of feed of the braid to the needle, a braid guide offset with respect to the axis of the recess of the body portion, and a second braid guide curved and extending transversely of the attachment and co operating with the first guide to define a lateral course for the braid as it approaches the line of feed to the needle, whereby the supply of braid is maintained in a position at one side of the attachment.

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