J. E. BERRY.

EMBROIDERY ATTACHMENT FOR SEWING MACHINES.

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1,201,924.

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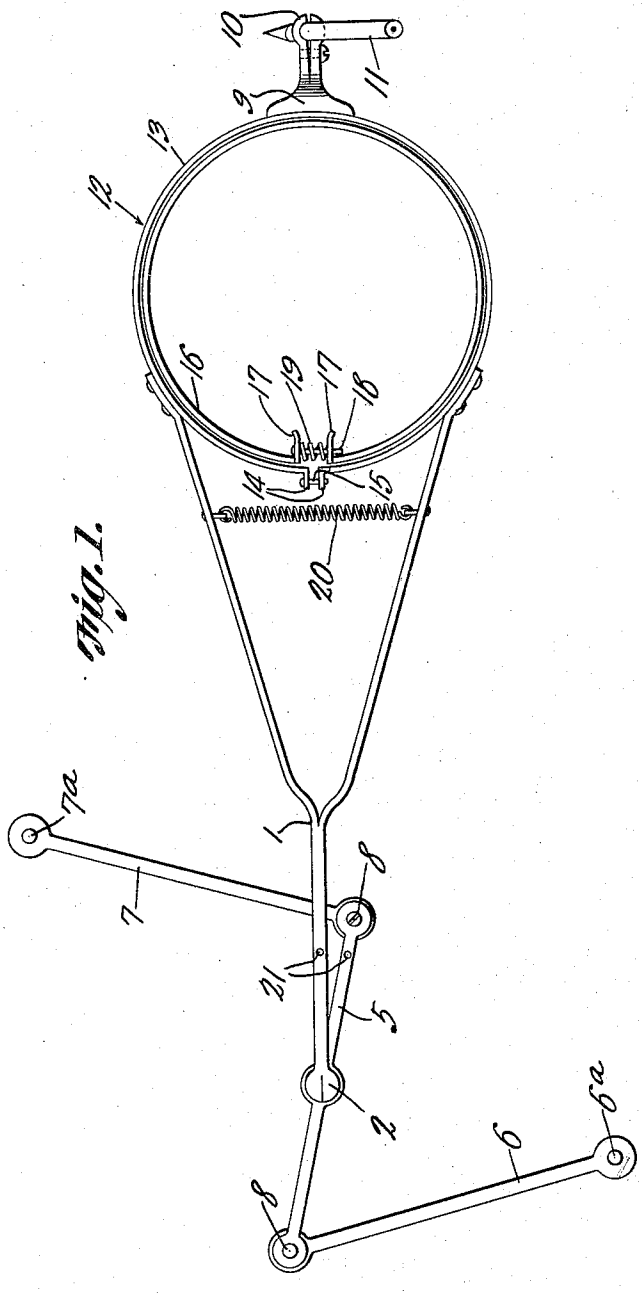


Fig. 1.

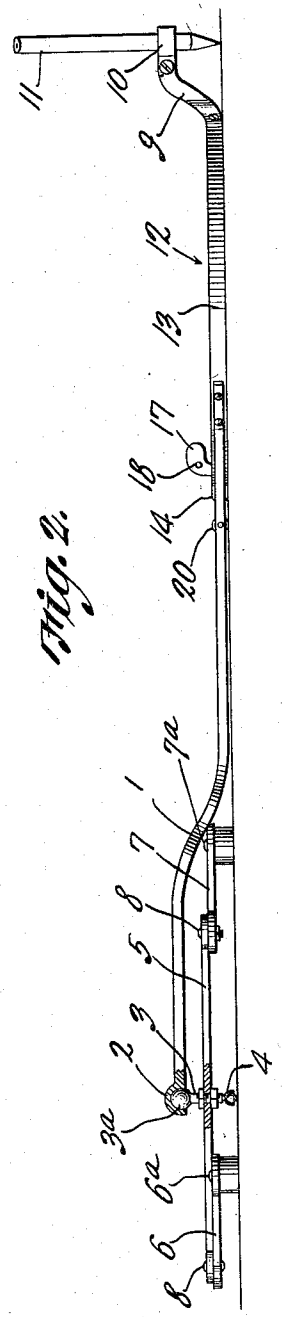


Fig. 2.

Witnesses

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EMBROIDERY ATTACHMENT FOR SEWING-MACHINES.

1,201,924. Specification of Letters Patent. Patented Oct. 17, 1916.

Application filed December 7, 1915. Serial No. 65,548.

To all whom it may concern:

Be it known that I, JOSEPH E. BERRY, a citizen of the United States, residing at St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and useful Embroidery Attachment for Sewing-Machines, of which the following is a specification.

The present invention is an embroidery attachment for sewing machines, of the nature of the embroidery attachment for sewing machines disclosed in my Patent No. 1,168,471, issued January 18, 1916, and it is the object of the invention to provide a novel and improved sewing machine attachment which enables names, monograms, and the like, to be readily sewed in towels, handkerchiefs, and other fabric articles.

One of the specific objects of the invention is the provision of novel means for holding the fabric.

Another specific object of the invention is to provide novel means for mounting the fabric holder for swinging and straight line movements.

A further object of the invention is the provision of an embroidery attachment of the nature indicated which can be so set, that when the pencil or other implement is used for writing a name or making a mark along a straight line, the name, monogram, or the like, will be stitched along a curved line in the fabric held by the fabric holder.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:—

Figure 1 is a plan view of the attachment. Fig. 2 is a side elevation thereof, portions being shown in section.

In carrying out the invention, there is provided a Y- or fork-shaped frame 1, the shank of which is provided at its end with a socket 2 embracing the ball 3^a at the upper end of a spindle or pin 3 which is provided with a ball caster 4 at its lower end to run upon the bed or table of a sewing machine, whereby the frame 1 can be moved easily.

In order to guide the spindle 3 for straight line movement, a Watt's straight line motion is employed, the same embodying a link 5 through the central portion of which the spindle is engaged, and the ends of the link 5 are pivotally engaged to the free ends of oppositely projecting arms 6 and 7, by the pivot elements 8. The remote ends of the arms 6 and 7 are pivoted, as at 6^a and 7^a, upon the bed or table of the sewing machine, or upon any other suitable base, and the arms 6 and 7 are so arranged that when the link 5 is reciprocated, the central point thereof will move in practically a straight line. The pivoted end of the frame 1 is thus guided for straight line movement by the Watt's straight line motion, and the frame 1 being connected by a ball and socket joint with the spindle 3 can be swung in a horizontal plane, and can also swing downwardly to rest upon the bed or table of the sewing machine.

The fabric holder 12 embodies an outer embroidery hoop or ring 13 riveted or otherwise secured to the terminals of the branches of the fork-like frame 1, the hoop 13 being split or divided between said branches and having outturned ears 14 at its ends. A pin 15 is secured to one of said ears and slides through the other, for guiding the ends of the hoop 13 for movement to and from one another. A second embroidery hoop or ring 16 is disposed within the hoop 13, and is divided or split at one point, the ends of the hoop 13 having inturned ears or finger pieces 17. A pin 18 is secured to one ear 17 and slides through the other, for guiding the ends of the hoop 16 for movement to and from one another, and a coiled wire expansion spring 19 is disposed upon the pin 18 between the ears 17 to normally separate the ends of the hoop 16 for expanding said hoop. The ears or finger pieces 17 can readily be pressed together by the thumb and fingers for contracting the hoop 16 in applying it to or removing it from the hoop 13 which is fixed to the free end of the frame 1.

Attached to the hoop 13 remote from the

frame 1 is an outstanding finger 9 having an eye 10 through which a pencil or similar element 11 may be inserted for manipulating the device.

A coiled wire contractile spring 20 connects the branches of the frame 1 so as to tend to swing them toward one another, to thereby contract the outer hoop 13 of the holder 12, but the expansive tension of the spring 19 is slightly greater than the contractive tension of the spring 20 so that the hoop 16 in expanding will expand the hoop 13 against the tension of the spring 20.

In using the attachment, supposing it to be properly applied to the sewing machine, the inner hoop 16 is removed and the fabric is then placed over the hoop 13, in which event the hoop 16 is replaced in contracted position. Then, when the ears 17 are released, the hoop 16 will expand to clamp the fabric between the outer and inner hoops. Then with the fabric below the needle of the sewing machine, the pencil or implement 11 is manipulated to write or follow the lines of the signature, name, monogram, or the like, which is to be embroidered in the fabric, and as a result, the fabric holder 12 will be properly moved with respect to the needle so that the name or other mark will be sewed in the fabric, the frame 1 readily responding to the movements of the pencil or implement 11.

In order that a curved signature or name can be provided in the fabric, the shank of the frame 1 and the link 5 are provided with apertures 21 which are brought into registration when the frame and link 5 are swung into alinement, and a pin or other securing element can then be inserted through the apertures 21 to hold the frame 1 fixed relative to the link 5. Before this is done, the arm 7 is detached from the link 5, by loosening and removing the respective pivot element 8. Now, the frame 1 is mounted for swinging movement relative to the arm 6, and said arm is mounted for swinging movement. When the pencil or implement 11 is moved along a straight horizontal line, it will be evident that the remote end of the frame 1 is moved along a curved line, due to the swinging movement of the arm 6, and this will result in the holder 12 being moved along a curved path instead of a straight one as before. Consequently, when the implement 11 is manipulated for writing a signature, name, or the like, along a straight line, the holder 12 will be moved along a curved line, so that the name, monogram, or the like, will be stitched in the fabric along a curved line. This is particularly desirable in connection with the slips or covers of chairs, and the like, wherein the fabric fits a curved surface, although this feature of the invention can be taken advantage of for other purposes when a curved signature or mark is desired in preference to a straight one, and without the necessity of the operator moving the implement 11, other than in the ordinary manner when writing a signature.

Having thus described the invention, what is claimed as new is:

1. An embroidery attachment for sewing machines, comprising a frame having a fabric holder, a pair of oppositely projecting pivotally mounted arms, and a link pivotally connected to the free ends of said arms, one end of said frame being pivotally connected with the central portion of said link.

2. An embroidery attachment for sewing machines, comprising a frame having a fabric holder, a pair of oppositely projecting pivotally mounted arms, and a link pivotally connected to the free ends of said arms, one end of said frame being pivotally connected with the central portion of said link, one of said arms being detachable from the link and the frame being adapted to be fixed to said link.

3. An embroidery attachment embodying a Y-shaped frame, means for mounting the shank thereof for straight line and swinging movements, a fabric holder embodying an outer split hoop attached to the terminals of the branches of said frame and an inner hoop, said branches being under spring tension tending to contract the outer hoop.

4. An embroidery attachment embodying a Y-shaped frame, means for mounting the shank thereof for straight line and swinging movements, a fabric holder embodying an outer split hoop attached to the terminals of the branches of said frame and an inner hoop, and a contractile spring connecting said branches for contracting the outer hoop.

5. An embroidery attachment embodying a Y-shaped frame, means for mounting the shank thereof for straight line and swinging movements, a fabric holder embodying an outer hoop attached to the terminals of the branches of said frame and an inner hoop, the outer hoop being split between said branches, and a contractile spring connecting said branches for contracting the outer hoop.

6. An embroidery attachment embodying a Y-shaped frame, means for mounting the shank thereof for straight line and swinging movements, a fabric holder embodying an outer split hoop attached to the terminals of the branches of said frame and an inner expansible hoop, and a contractile spring connecting said branches for contracting the outer hoop, the expansive tension of the inner hoop being greater than the tension of said spring.

7. An embroidery attachment embodying a Y-shaped frame, means for mounting the shank thereof for straight line and swing-

ing movements, and a fabric holder embodying an outer hoop attached to the terminals of the branches of said frame and an inner hoop, the outer hoop being split between said branches and the inner hoop being split, the ends of said hoops having ears, a pin secured to one ear of each pair and sliding through the other, an expansion spring upon the pin of the inner hoop for separating the ends thereof, and a contractile spring connecting said branches for contracting the outer hoop.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOSEPH E. BERRY.

Witnesses:
Mrs. J. E. Berry,
Mrs. M. G. Erffmeyer.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."