May 1, 1951 S. H. TILLETT ET AL 2,551,182

DEVICE FOR APPLYING MARKING STITCHES

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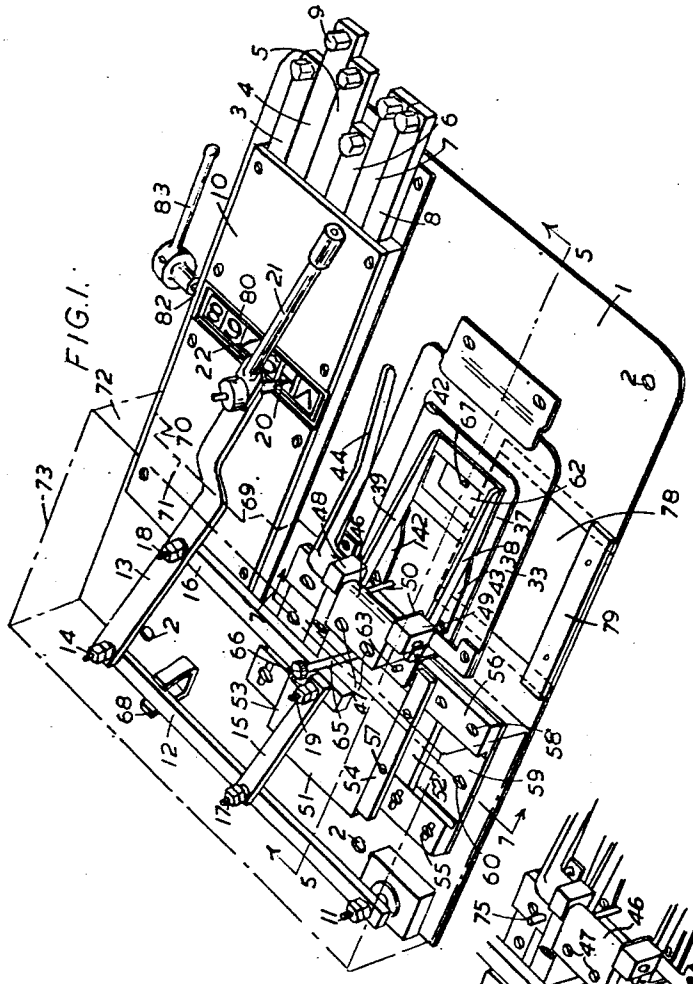


FIG. 1.

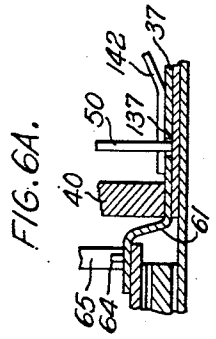


FIG. 6A.

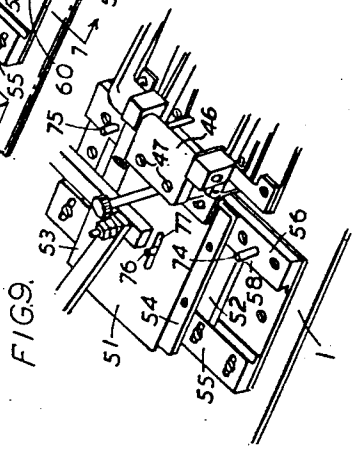


FIG. 9.

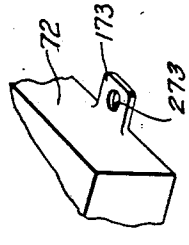


FIG. 1A.

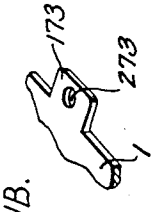


FIG. 1B.

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FIG.5

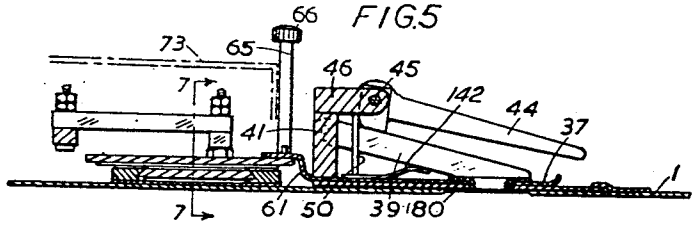


FIG.6.

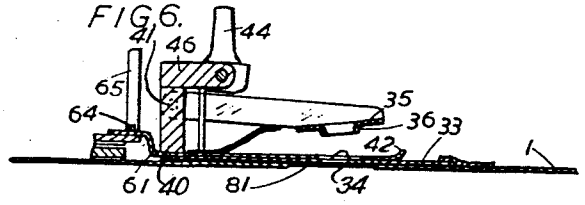


FIG.7.

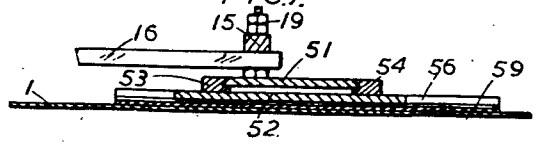


FIG.8.

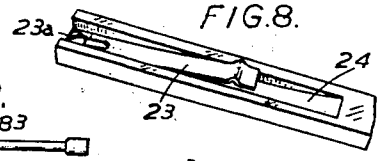


FIG.2.

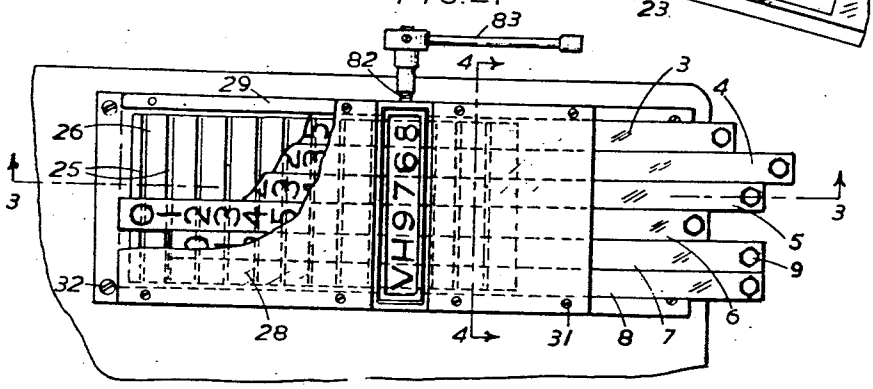


FIG.3.

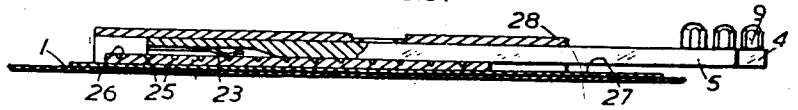
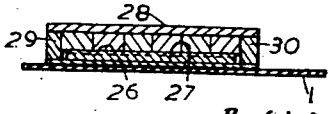


FIG.4.



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Patented May 1, 1951

2,551,182

UNITED STATES PATENT OFFICE

2,551,182

DEVICE FOR APPLYING MARKING STITCHES

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Application November 5, 1948, Serial No. 58,482
In Great Britain June 24, 1948

3 Claims. (Cl. 112—103)

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This invention relates to devices for applying a marking in stitching to a garment, piece of cloth or like article, the marking being, for example, a laundry mark, although it is to be understood that the term "marking" as used herein includes any marking at all, irrespective of whether it be composed of a single letter, numeral, sign or other character or a combination of two or more thereof, also, as hereinafter more particularly described, a line or lines of stitching serving to attach a tab, label, patch or the like to the article to be marked, said tab or the like itself carrying, if required, a marking, applied with the use of the device either prior to the attachment of the tab or the like or subsequently thereto, or in the one operation with that of attaching the tab or the like.

Devices for this purpose are known actually forming part of a sewing machine.

According to the present invention, a device for the purpose referred to is constructed as an attachment for use with a sewing machine, the said attachment comprising in combination a tracing point which in the use of the attachment is traced by hand over an image of the marking to be applied to the article, a work holder for holding the article to be marked in operative stitching register with the needle of the sewing machine, and an operative connection between the tracing point and the work holder of a character such as will cause the work holder to reproduce or approximately to reproduce the movements of the tracing point as the latter is traced over the image.

According to a preferred form of the invention, the attachment may further comprise means (e. g. a rigid foundation plate) for supporting the various parts of the attachment as enumerated in the preceding paragraph in such a manner as to form therewith a unit transportable as such and placeable as such in any desired operative position relatively to the sewing machine. In some cases it may be desired to place the attachment with the tracing point to one side of the head of the sewing machine. In others it may be desired to place the attachment with the tracing point in front of the head of the sewing machine. With a unit placeable in any desired operative position relatively to the sewing machine this position of matters is provided for, as will be understood.

Further according to a preferred form of the invention the operative connection between the

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tracing point and the work holder consists of a pantograph.

In this event the work holder may be connected to the pantograph pivotally, at a position removed from the needle of the sewing machine when the attachment is in use, and be associated with means for guiding it in its movement with the pantograph in such a manner that it is prevented in said movements from angular movement around the axis of its pivotal connection to the pantograph.

Such guiding means may consist of a block carrying the pivot of the pivotal connection and guided for sliding movement in a plane parallel to the plane of the pantograph relatively to a support for the block, which in turn is guided for sliding movement in a plane parallel to the plane of the pantograph, relatively to the sewing machine (assuming the attachment is in use), in a direction transverse to the direction of sliding movement of the block.

Further according to the invention, the image which is traced over in the use of the attachment may be inscribed on the surface or surfaces of an image carrier or carriers incorporated in the attachment.

In this event, and in the event further of the marking to be applied to the article being composed of a combination of letters, numerals or other characters as hereinbefore referred to, the arrangement may be one in which there are a series of image carriers each carrying a letter, numeral or other character as referred to and each interchangeable as regards operative (image-forming) position in the attachment with any of the remainder of the carriers, thereby to vary as required the combination of characters according to the requirements of the image to be composed thereof.

In this event the image carriers may conveniently be in the form of bars extending in the direction of their length transversely to the line of the image to be formed and carrying each a series of letters, numerals or other characters as referred to, said bars, besides being mutually interchangeable as regards operative (image-forming) position in the attachment, being displaceable endwise of themselves independently of one another so as to bring any of the characters on any of the bars into said line of the image to be formed.

The invention will now be further described with reference to the accompanying drawings, which illustrate a preferred embodiment by way of example.

In these drawings:

Figure 1 is a perspective view of the device forming the subject matter of the invention;

Figures 1A and 1B are fragmentary views showing a detail hereinafter described;

Figure 2 is a fragmentary plan view of the device, the part of the device shown being the right hand far corner thereof as the device appears in Figure 1;

Figure 3 is a vertical section through Figure 2 on the section line 3—3 thereof;

Figure 4 is a vertical section through Figure 2 on the section line 4—4 thereof;

Figure 5 is a vertical fragmentary section through the device as shown in Figure 1 on the section line 5—5 thereof, the figure showing the part hereinafter referred to as the "clamping member" in the operative (work clamping) position;

Figure 6 is a view similar to Figure 5, showing the clamping member in the inoperative position thereof;

Figure 6A is an enlarged view of part of Figure 6;

Figure 7 is a vertical fragmentary section through the device on the section lines 7—7 of Figures 1 and 5;

Figure 8 is a fragmentary perspective view of one end of one of the image carrier bars hereinafter more particularly referred to, the view being an underside view of the bar, and

Figure 9 illustrates a possible modification hereinafter described.

Like reference numerals indicate like parts in the various figures.

The attachment as shown comprises a foundation plate 1 of generally rectangular shape as appears from Figure 1. This plate carries the component mechanisms of the attachment, which are mounted upon it and it is arranged to be affixed in the required position to the base or framework of the sewing machine, overlying the same, for which purpose it may be provided with a number of holes 2 at conveniently placed positions in the plate for the reception of fixing screws, bolts or the like. Alternatively to the use thus of fixing screws, bolts or the like, received in holes as 2, or in addition thereto, fixing brackets as hereinafter particularly described may be employed.

The attachment further comprises a "tracing point," as hereinbefore referred to, a "work holder" also as hereinbefore referred to and an operative connection between the "tracing point" and the "work holder," consisting of a pantograph.

The attachment further comprises a series of "image carrier bars" as hereinbefore referred to, 3, 4, 5, 6, 7, 8, adjustable endwise of themselves in a housing generally marked 10 in Figure 1, the image carrier bars being furnished each with a manipulating knob 9.

The pantograph is disposed with its "fixed" pivot 11 positioned near the left rear (in Figure 1) corner of the foundation plate 1, and it consists, as in the conventional pantograph, of two levers, one 12 extending from the "fixed" pivot 11 and the other 13 extending from the outer extremity of the first lever 12, whereat is the "outer" movable pivot 14 of the instrument, and two links, one 15 pivotally connected at 17 to the lever 12 at a point intermediate the ends thereof, and the other 16 pivotally connected at 18 to the lever 13 at a point intermediate the ends thereof, the two links 15, 16 being pivotally connected to one another at 19 and the pivot at this point 19 constituting the "inner" movable pivot of the instrument.

The tracing point, which is marked 20, is carried upon the free extremity of the lever 13 of the pantograph, and this lever has attached to it an extension 21 serving as a handle by which the pantograph is manipulated in the use of the attachment.

The handle 21 is or may be pivotally mounted upon the lever 13 so as to be adjustable angularly with respect to the general line thereof, and when it is so mounted it is furnished with means for fixing it in its adjusted position relatively to the lever. Such clamping means may take any convenient form and, if desired, it may embody a castellated nut (or the equivalent) effective to afford a positively rigid connection (as opposed to a mere frictional connection) as between the handle and the lever. The purpose of providing for angular adjustability of the handle relatively to the lever is, of course, to enable the handle to be set at any necessary or convenient position in the use of the attachment, having regard to the fact that the attachment is designed for use with practically any standard sewing machine and it may happen that with certain designs of sewing machines or in certain relative positions of the device with respect to a given sewing machine, it may be necessary or more convenient to have the handle at a certain angle to one side or the other of the general line of the lever than in strict alignment therewith.

The tracing point is readily removable from place in the instrument and here again any convenient construction may be employed, affording the feature of ready removability and replacement of the point. In this connection it will be appreciated that it is desirable to employ a construction affording this feature, since in course of time the extremity of the point may wear, with the result that it may become necessary to remove the point and either re-sharpen it or replace it with a new point.

As already remarked, the tracing point of the attachment is, in the use thereof, traced along the lines of an image of the marking to be applied in stitching to the garment, piece of cloth or like article to be marked, and in the particular embodiment of the invention shown, wherein the image consists of a series of separate characters (e. g. VH 9768), these characters are carried respectively upon the image carrier bars aforesaid 3, 4, 5, 6, 7, 8.

The image carrier bars each carry, as will be seen, a series of letters of the alphabet, in the case of the bars 7, 8, and a series of numerals 0 to 9 in the case of each of the remaining bars 3, 4, 5, 6, and the arrangement is such that each bar is interchangeable as regards operative (image-forming) position in the housing 10 with any of the remainder of the bars, thereby to vary as required the combination of characters composing the image of the marking to be applied to the garment, piece of cloth or the like. It will be understood, of course, that although in the particular embodiment of the invention shown, the two bars 7, 8 each carry a series of letters and each of the other bars a series of numerals, the invention is by no means limited to an arrangement in which this is the case, but is of broad scope in this respect to include any arrangement at all of image forming characters

on the bars, according, for example, to the nature of the marking to be applied to the garment or the like. It will also be understood that, although in the particular embodiment of the invention shown, there are six image carrier bars, there may be any other desired or necessary number thereof, even a single bar movable inwardly and outwardly of the housing **10** in the manner described with reference to the bars **3** to **8**. Also, if desired, separate image carrier segments, carrying respectively different markings (e. g. signature facsimiles), may be selectively insertable in or over the tracing aperture **22**, in overlying relationship to the portions of the bars **3** to **8** in register therewith, the tracing point **20** being in this case traced along the lines of the image on the segment in place in the aperture, instead of along the lines of an image made up of characters carried on the bars **3** to **8**.

The image carrier bars **3** to **8** are located and yieldingly held in their operative (image-forming) positions in the housing **10** by spring detents **23** carried on the underside of the bars, being accommodated in recesses **24** therein (see Figure 8), and co-operative with a series of grooves **25** formed in the upwardly presented face of a bed plate **26** in stationary relation to the housing **10** and, therefore, to the line of the image to be formed in the tracing aperture **22** by the line of characters in register therewith on the bars **3** to **8**, the said grooves **25** being spaced from one another along the path of endwise displacement of the bars at an interval which is equal to the spacing of the characters along the bars.

The housing **10** consists of a base plate **27**, a cover plate **28** and two side walls **29**, **30**, the side walls being rigidly secured to the base plate **27** by screws (not shown) and the cover plate **28** to the side walls by screws **31**. The base plate **27** is rigidly secured to the face of the foundation plate **1** by screws **32** and the interior height of the housing on the one hand and the thickness dimension of the bed plate **26** on the other, which bed plate is rigidly affixed to the base plate **27** by screws (not shown), are such that the image carrier bars **3** to **8** have an easy sliding fit in the housing, between the face of the bed plate **26** and the underside of the cover plate **28**.

The spring detents **23** are constituted by spring tongues (Figure 8) secured at one end by screws **23a** to the bottom of the recess **24**, which latter is of a depth sufficient to enable the tongue to recede completely into the recess as the tongue yields in consequence of the bar being pulled or pushed (in its endwise movement relative to the housing **10**) against the resilience of the tongue, from one endwise position relatively to the bed plate **26** to another. With such an arrangement it is possible to use a bar the depth of which is only very slightly less than the distance between the face of the bed plate **26** and the underside of the cover plate **28**, with the result that the bars seat firmly upon the bed plate so as to be substantially non-yielding to the pressure of the tracing point of the pantograph as this is traced over the image character on the bar. The screws **23a** extend through holes in the spring tongues and for purposes of effecting a fine adjustment of the position of the image carrier bars longitudinally thereof, relatively to one another and to the aperture **22**, these holes may be elongated in the direction of length of the spring, so enabling the springs to be adjusted along the bars as required, for the purposes of the fine adjustment referred to.

The "work holder" of the attachment consists of a plate **33** (hereinafter referred to as the "work plate") having in it an aperture **34** to accommodate the movement of the holder relative to the needle of the sewing machine, upon which work plate the article to be marked is clamped for the marking operation by a clamping member **35** having two positions in relation to the plate **33**, an inoperative position (Figure 6) in which it is removed sufficiently clear of the plate **33** to permit the insertion of the article to be marked into position over the aperture **34** in the plate, and an operative position (Figure 5) in which it is effective to clamp the article down on to the plate **33** in said position.

As will be seen, the clamping member **35** is formed on the underside with a projection **36** which forces the article to be marked down into the aperture **34** in the work plate, whereby the article is held in a taut condition against the face of the foundation plate **1** during the marking operation.

The "work holder" further comprises an auxiliary clamping member **37** overlying the work plate **33** in intervention between the latter and the main clamping member **35** and overlying also the article to be marked when the latter is in inserted position in the holder, said auxiliary clamping member **37** being effective, after the article has been inserted beneath it, to press the article down on to the face of the work plate, thereby temporarily holding it in the inserted position until such time as the main clamping member **35** is moved to the operative (Figure 5) position, in which position, as above described, the article is held down taut against the face of the foundation plate **1**.

The main clamping member **35** is carried upon one end of a pair of arms **38**, **39** in rigid connection therewith, which arms **38**, **39** are pivotally mounted at the other end thereof upon a pedestal member **40** rigidly affixed to the left hand (in Figures 1, 5 and 6) end of the work plate **33**, the pivots of the arms to the pedestal member being at the point marked **41** in Figures 5 and 6.

The auxiliary clamping member **37**, which consists of a plate upwardly curved at **42** along its right hand (in Figures 1, 5 and 6) end, has, when the main clamping member **35** is in the raised (inoperative) position, a freedom for movement towards and away from the face of the work plate **33**, to permit the insertion of the work between the auxiliary clamping member and the work plate in the manner described above. At the same time (i. e. when the main clamping member is in the raised position), it is yieldingly urged in the direction towards the work plate by a pair of spring tongues **142**, **43**, secured at one end to the upwardly presented face of the member and resiliently bearing at the other end upon the underside of the arms **38**, **39**, the arrangement being such that the spring tongues **142**, **43** yieldingly urge the arms **38**, **39** in the upward direction and, therefore, in the direction to move the main clamping member **35** from the operative (lowered) position thereof to the inoperative (raised) position, thereupon retaining it in the latter position, and at the same time yieldingly press the auxiliary clamping member down onto the face of the work plate **33**.

The arms **38**, **39** are moved in the clockwise (in Figures 1, 5 and 6) direction and, therefore, in the direction to move the main clamping member **35** from the inoperative to the operative position, by means of a hand lever **44** affixed to

one end of a pivot rod 45 revolubly mounted in a horizontally disposed bearing plate 46 rigidly affixed by screws 47 to the upper end of the pedestal member 41, the pivot rod 45 having mounted upon it, in rigid connection with it, a pair of cams 48, 49, positioned vertically over the bars 39, 38, and adapted to co-engage therewith as the lever 44 is turned upwardly or downwardly about the axis of the pivot rod 45, with consequent movement in the one direction or the other of the arms 39, 38, to bring the main clamping member 35 to the inoperative position thereof or the operative position, according to the direction in which the lever is turned. It will be appreciated that the unit consisting of the arms 39, 38 and the main clamping member 35 moves in the upward direction (consequent on turning of the handle 44 in the upward direction) by thrust derived from the spring tongues 142, 43, the free extremities of which, as before remarked, bear resiliently against the underside of the arms 39, 38.

In order to locate the auxiliary clamping member 37 relatively to the work plate 33, as regards position in the general plane of the member, while permitting it to move in directions towards and away from the work plate to accommodate the thickness of the work inserted beneath it in the use of the attachment in the manner described above, a pair of locating pins 50 are provided disposed vertically in the space between the underside of the bearing member 46 and the upper side of the work plate 33, these locating pins being stationary and occupying fixed positions relatively to the bearing member and the work plate, and there being a pair of holes 137 in the auxiliary clamping member through which the locating pins extend with a free sliding fit as between the pins and the holes.

The "work holder" consisting of the parts enumerated above, namely the work plate 33, the main clamping member 35, the auxiliary clamping member 37, the pedestal member 41, the bearing member 46 and the remainder of the associated parts, including the arms 38, 39, lever 44 and cams 48, 49, is connected to the pantograph pivotally, at a position removed from the needle of the sewing machine when the attachment is in use, and is associated with means for guiding it in its movements with respect to the pantograph in such a manner that it is prevented in said movements from angular movement around the axis of its pivotal connection to the pantograph—as hereinbefore stated.

Such guiding means consists, in the embodiment of the invention shown, of a block 51 carrying the pivot of the pivotal connection, which pivot is coincident with the "inner" pivot 19 of the pantograph, and guided for sliding movement in a plane parallel to the plane of the pantograph relatively to a second block 52, in turn guided for sliding movement in a plane parallel to the plane of the pantograph, relatively to the foundation plate 1 and, therefore, to the sewing machine (assuming the attachment is in position thereon), in a direction transverse to the direction of sliding movement of the block 51.

Any convenient construction may be employed as regards the means for guiding the blocks 51, 52 in their respective paths of sliding movement. According to the construction shown, the block 51 is slidably mounted on a pair of guide bars 53, 54 grooved along their inner edges to receive the edges adjacent thereto of the block 51. In a similar way the block 52 is slidably mounted

on a pair of guide bars 55, 56 grooved along their inner edges to receive the edges adjacent thereto of the block 52, the bars 53, 54 being screwed by screws 57 to the lower block 52, and the bars 55, 56 being similarly screwed by screws 58 to the upwardly presented face of a base plate 59, in turn screwed by screws 60 to the face of the foundation plate 1. Preferably, as in the construction shown, the grooves in the bars 53, 54, 55, 56 are V-shaped in cross-section and one of the bars of each pair thereof is adjustable towards and away from the other bar of the pair for the purposes of accurate setting of the parts and also, when necessary, to take up wear. For example, the holes in the adjustable bar through which the fixing screws for the bar extend may be elongated in a direction transverse to the direction of length of the bar, thereby enabling the bar to be adjusted in the manner and for the purposes set forth.

The "work holder" is coupled to the block 51 through the intermediary of a coupling plate 61 connected to the block 51 on the one hand and the work plate 33 on the other. With such an arrangement, as will be appreciated, the operative movements of the "inner" pivot 19 of the pantograph as the tracing point 20 thereof is traced along the lines of a marking image in the tracing aperture 22, are faithfully reproduced by any given point on the "work holder" and, therefore, relatively to the needle of the sewing machine (assuming the attachment is in use), by any given point on the portion of a garment or other article of work in position on the "work holder," in register with the aperture 62 in the main clamping member 35 through which the needle of the sewing machine works.

For the purposes of ready detachability of the "work holder" unit, for example to permit of access to the bobbin on the sewing machine by way of the access opening hereinafter described in the foundation plate 1, the coupling plate 61 is connected to the block 51 by means of a pair of locating pins 63, 64, projecting upwardly from the face of the block 51 and engaging in a pair of holes provided to receive them in the coupling plate, and a centrally disposed fixing stud 65 screwing into the block 51 and effective to fix the coupling plate rigidly thereto, said stud 65 having a knurled head 66 accessible for manipulation (i. e. for removal and replacement of the stud in the operations respectively of detaching and refixing the "work holder") without necessity to remove the cover hereinafter described, which is normally placed over the pantograph portion of the attachment.

The needle of the sewing machine also works in a small hole 67 in the foundation plate 1, the arrangement being such that this hole is always in register with the aperture 62 in the clamping member 35, irrespective of the position of the tracing point 20 within the confines of the tracing aperture 22. In order to ensure that the hole 67 is always in register with the aperature 62 in the manner described, stop means are provided for limiting the strokes of oscillatory movement of the levers 12 and 13 of the pantograph about their respective pivots 11, 14. Said stop means may take any convenient form. According to the form shown in Figure 1, the operative stroke of lever 12 is limited by the upstanding limbs of a U-shaped stop 68 affixed to the face of the foundation plate 1 with its said limbs disposed one on either side of the lever with sufficient clearance therefrom to enable the lever to

perform a full arc of operative movement corresponding to a full stroke of operative movement of the tracing point 20 in a direction parallel to the direction of length of the image carrier bars. In the case of lever 13 the operative stroke of this is limited by the lateral edges 69, 70 of an aperture 71 provided in the front wall 72 of a rectangular box-like cover, shown in chain line at 73 in Figures 1 and 5, disposed over the pantograph portion of the attachment and removably secured to the foundation plate 1 thereof, the horizontal dimension of said aperture 71, between the lateral edges 69, 70 thereof, being such as to provide freedom for a full arc of operative movement of the lever 13 about its pivot 14 corresponding to a full stroke of operative movement of the tracing point 20 in a direction transverse to the direction of length of the image carrier bars. It will be understood, of course, that the distance between the upstanding limbs of the stop 68 and the said horizontal dimension of the aperture 71 are such as, while affording freedom for a full operative stroke of the respective levers 12, 13, to prevent a movement of the work plate 33 of such a magnitude as to cause the needle hole 67 in the foundation plate to become blinded by the portions of the main clamping member 35 circumscribing the aperture 62 therein.

An alternative and in general preferred construction, as regards the stop means referred to, is illustrated in Figure 9.

According to this construction the stop means consists of a pair of pins 74, 75, upstanding from the face of the guide bar 56 at such positions therealong as to be effective, by engaging the lateral edges of the guide bars 54, 53, to limit the operative stroke of the block 52 (and therefore of the "work holder" in the direction of movement thereof parallel to the direction of length of the tracing aperture 22) as required, and a third pin 76 upstanding from the face of the block 52 and extending therefrom through a slot 77 formed in the block 51 with its direction of length parallel to the direction of length of the guide bars 53, 54, said slot being so positioned relatively to the position of the pin 76 and being of such a length, as to be effective by engagement with the pin 76 to limit the operative movement of the block 51 (and therefore of the "work holder" in the direction of movement thereof parallel to the direction of width of the tracing aperture 22) as required.

To afford access to the bobbin of the sewing machine, without necessity to remove the attachment from the machine, a section, marked 78 in Figure 1, of the foundation plate 1 is removable from place as a slide, the upper face of said section being recessed along the lateral edges thereof to interfit, with a snug sliding fit, corresponding recesses formed along the underside of the lateral edges of the opening in the foundation plate in which the section is accommodated, and having affixed to it, along the outer edges thereof, a fillet 79 the end portions of which overlie, with a snug sliding fit, the lateral edges aforesaid of the opening in the foundation plate. When it is required to gain access to the bobbin of the sewing machine (assuming the attachment is in position on the machine) the fixing stud 65 is unscrewed and removed, the "work holder" unit is lifted bodily off the foundation plate and the section 78 is withdrawn. The cover of the bobbin mechanism is now accessible for withdrawal to expose the bobbin and other parts of the mechanism.

If desired, there may be provided, in addition to the fixing holes 2 in the foundation plate or in place thereof, or at least of those under the cover 73, a number of fixing lugs 173 carried on the cover 73, or as the case may be the foundation plate 1, and formed with holes 273 for the reception of screws or bolts by which the attachment as a unit, through the intermediary of the lugs, may be affixed to the base of the sewing machine, said lugs being so shaped and positioned as to overlie the base of the sewing machine beyond the line of the fundation plate 1. With such an arrangement it is possible, as will be understood, to affix the attachment to the sewing machine or to remove it therefrom, without having to remove the cover 73 to get at screws or bolts disposed beneath the same.

As already indicated, the "marking" as herein referred to may consist, at least in part, of a line or lines of stitching serving to attach a tab, label or the like to the article, the attachment according to the invention then being used, as will be understood, for so-called "tabbing" purposes. For example, such line or lines of stitching may extend along a marginal portion or portions of such a tab, label or the like. In this event, a convenient arrangement is one in which the "image" of the tabbing "marking" is a groove 80, inscribed on the upwardly presented face of the cover plate 28 around the tracing aperture 22 therein.

It is important of course that the image carrier bars 3 to 8 shall be firmly held in the operative position within the housing 10 during a marking operation. They are firmly supported in said position against vertical movement (i. e. under the pressure of the tracing point 20) by the base plate 26. To hold them against lateral movement and positively against endwise movement, a clamping screw 82 is provided, mounted in a screw threaded bearing carried on the outer side member 29 of the housing 10 and having a manipulating handle 83. A half-turn (say) of the clamping screw 82 suffices to lock the bars, or unlock them, according to the direction of the half-turn, the arrangement being such that the inner end of the screw bears upon the side adjacent thereto of the outermost bar 3, which in turn communicates the thrust from the screw to the remainder of the bars against the reaction of the inner side member 30 of the housing.

The various parts of the attachment may be composed of any suitable material, metallic or non-metallic. If desired they, or any of them, may be composed of a suitable plastic (synthetic resin).

Generally, the reproduction of the image will be on a reduced scale. It may, however, be on an enlarged scale or on the same scale.

When the attachment is in position on the base of the sewing machine a portion of the foundation plate 1 in the neighbourhood of the needle hole 67 overlies the reciprocatable toothed feed rack of the machine. To accommodate this rack the underside of said portion of the foundation plate is or may be recessed, as at 81, sufficiently to give the necessary clearance for the rack to reciprocate freely out of contact with the plate.

What we claim as our invention and desire to secure by Letters Patent of the United States is:

1. A device for applying a marking in stitching to a garment, a piece of cloth or like article, constructed as an attachment for use with a sewing machine having a bed, the said attachment comprising in combination a tracing point which in the use of the attachment is traced by hand over

an image of the marking to be applied to the article, a work holder for holding the article to be marked in operative stitching register with the needle of the sewing machine, a pantograph connection between the tracing point and the work holder to cause the work holder to reproduce the movements of the tracing point as the latter is traced over the image, the work holder being pivotally connected to the pantograph at a position removed from the needle of the sewing machine when the attachment is in use, and means for guiding the work holder to prevent angular movement thereof in the plane of the work, about the axis of its pivotal connection to the pantograph, relative to the bed of the sewing machine, the work holder comprising a work plate having an aperture to accommodate the movement of the holder relative to the needle of the sewing machine, a main clamping member having two positions in relation to the work plate, an inoperative position in which it is removed sufficiently clear of the plate to permit the insertion of the article to be marked into marking position over the aperture in the plate, and an operative position in which it is effective to clamp the article down onto the plate in said marking position, and an auxiliary clamping member overlying the work plate in intervention between the latter and the main clamping member and overlying also the article to be marked when the latter is in inserted position in the holder, said auxiliary clamping member being effective, after the article has been inserted beneath it, to press the article down onto the face of the work plate, thereby temporarily holding it in the inserted position until such time as the main clamping member is moved to the operative position.

2. A sewing machine attachment as claimed in claim 1, the main clamping member being carried upon an arm pivoted to swing towards and away from the face of the work plate, the auxiliary clamping member comprising a plate also movable towards and away from the work plate, a spring yieldably urging said auxiliary clamping member towards the work plate, said spring also yieldably urging the arm carrying the main clamping member in a direction away from the work plate, the said spring serving therefore the double purpose of holding the main clamping member in the inoperative position and simultaneously pressing the auxiliary clamping member down onto the work in inserted position between the auxiliary clamping member and the work plate.

3. A sewing machine attachment as claimed in claim 2, including a hand lever for operating the arm carrying the main clamping member, and a cam fast with the lever and engaging the arm.

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