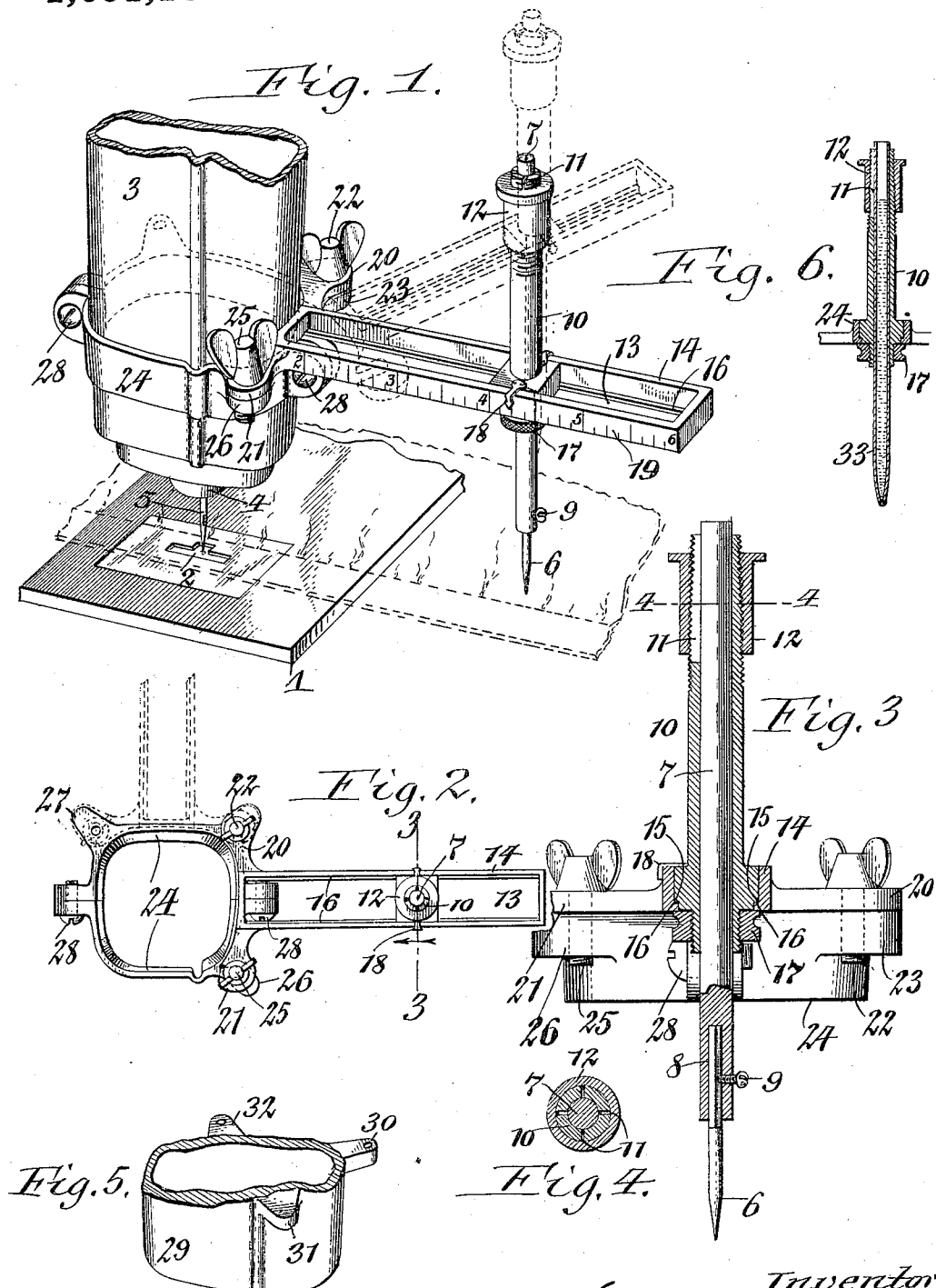


S. F. SCHEU.
MARKING DEVICE.
APPLICATION FILED JAN. 19, 1911.

1,051,163.

Patented Jan. 21, 1913.



Witnesses:
Richard Samuel
Alfred Bokenhagen

Inventor
Solomon F. Scheu
by Geper & Tapp
Attorneys

UNITED STATES PATENT OFFICE.

SOLOMON F. SCHEU, OF BUFFALO, NEW YORK, ASSIGNOR TO SPACE MARKER COMPANY,
OF BUFFALO, NEW YORK, A COPARTNERSHIP.

MARKING DEVICE.

1,051,163.

Specification of Letters Patent.

Patented Jan. 21, 1913.

Application filed January 19, 1911. Serial No. 603,477.

To all whom it may concern:

Be it known that I, SOLOMON F. SCHEU, a citizen of the United States, residing at Buffalo, in the county of Erie and State of New York, have invented new and useful Improvements in Marking Devices, of which the following is a specification.

This invention relates to a marking device which is intended for use on sewing, fastening and similar machines for the purpose of producing spaces or measured marks on a garment or similar sheet-like fabric or body on which sewing or fastening operations are to be performed at regular intervals, such for instance as the operations of sewing button holes, buttons, hooks, fasteners, eyes, frogs, clasps, eyelets, tapes, ribbons, &c., on the edge portions of garments or fabric.

In making garments or other articles of a flexible fabric or a sheet like character which are intended to receive a row of buttons, button holes, hooks and eyes or similar means for fastening two edges of such articles together, it has been customary to lay off on such garments or articles the places where the sewing or fastening operations are to be performed, this laying off being usually done either by means of a measuring tape, rule or tool, or simply by means of eye measure if the operator is skilful. Both of these plans are objectionable for the reason that the measuring operation by means of a measuring instrument consumes extra time while the eye measure is uncertain and often results in imperfect work.

It is the object of this invention to provide a simple, efficient and durable marking device of this character for sewing or fastening machines which can be readily adjusted for placing accurately spaced marks on the work piece where the sewing or fastening operations are to be performed and which permits of producing the marks accurately while the sewing or fastening operation is going on and thereby avoid the loss of time for effecting such marking.

In the accompanying drawings: Figure 1 is a fragmentary perspective view of a sewing machine equipped with one form of my marking device. Fig. 2 is a top plan view of the marking device shown in Fig. 1. Fig. 3 is a vertical transverse section in line 3—3, Fig. 2. Fig. 4 is a horizontal section in line 4—4, Fig. 3. Fig. 5 is a fragmentary perspective view showing a modification of

the means for applying the marking device to the sewing machine. Fig. 6 is a vertical section of an ink fountain pen which may be used in connection with my marking device for producing marks on fabrics or other material which cannot be marked by a prick mark.

Similar letters of reference indicate corresponding parts throughout the several views.

Although my invention is applicable to sewing or fastening machines which vary in design and construction, the sewing machine shown in the drawings for illustrating the application of my invention comprises a horizontal table or support 1 having an opening 2 below which the usual shuttle mechanism is arranged, a stationary head 3 arranged above the table and separated therefrom by an intervening space or gap, a vertically movable needle bar or rod 4 arranged within the head, and a sewing needle 5 or other operating member secured to the lower end of the needle bar and adapted to pass through the fabric which is to be sewed and through the opening in the top of the table so as to cooperate with the shuttle for forming the stitches, all of which may be of any suitable and well known construction.

6 represents the marker whereby the marks are produced at intervals on the fabric at the places where the sewing operations are intended to be successively performed. As shown in Fig. 1, this marker consists of a vertical pin, needle or awl which has a sharpened lower end and which is supported so that the same is normally stationary relatively to the sewing needle and preferably so that the lower end of this marker is above the plane of the table. In using this marker the operator effects the sewing operation at the place on the fabric where the first sewing operation is to be performed and while the sewing needle is performing its work at this first place the operator while holding the fabric comparatively taut also raises the same manually sufficiently to bring the fabric into engagement with the lower pointed end of the marker 6, whereby the fabric is pierced and a prick mark or hole is produced in the fabric owing to the separation of the fibers or threads of the fabric. This mark on the fabric indicates to the operator where the next sewing operation is to be performed on

the fabric so that when the sewing needle has completed the sewing operation at the previous place on the fabric the operator can quickly advance the fabric and bring the next following marked place of the same to the needle of the sewing mechanism and effect the sewing at this place. The operator in like manner marks each succeeding place on the fabric where the same is to receive a button, a button hole, a hook, an eye or other sewing operation while the sewing needle is operating upon the previously marked place on the fabric, thereby utilizing the time of the operator which has heretofore been lost between the sewing operations and also saving the time of the operator who usually marked off the fabric at the places where the sewing operations were to be performed preparatory to turning the same over to the sewing machine operator.

When piercing or perforating the fabric will answer the purpose for marking the places where the sewing operations are to be performed the needle or awl 6 may be made of metal, wood or similar hard material, but if the character of the article or fabric on which the sewing operations are performed does not permit of being pierced the marker may be constructed of a pencil or crayon of any suitable color so that when the operator raises the fabric into engagement with the lower end of the pencil or crayon a mark will be left on the fabric which will be visible to the operator and enable him to properly locate the place where the next following sewing operation is to be performed on the fabric.

It is desirable to provide means whereby the marker may be renewed when the same becomes dull or worn out, also adjusted vertically to suit the character of the work which is being operated upon, also to permit of varying the distances between the marks on the fabric, and also to permit of moving the marker out of the way when the same is not required for use or when it is desired to repair, inspect or adjust the sewing mechanism of the machine. The preferred means for thus mounting the marker so that it has the above mentioned capacity, are shown in Figs. 1-4 of the drawings and are constructed as follows:—7 represents an upright cylindrical supporting rod which is provided at its lower end with a socket 8 in which the upper end of the marker 6 is secured by means of a set screw 9. When it is desired to remove the marker for sharpening the same or for replacing it when worn out this can be readily done by means of this set screw. The upper part of this supporting rod is arranged in an upright tubular holder or carrier 10 in which the supporting rod is capable of vertical adjustment. The supporting rod is securely held in position after adjustment by taper-

ing the upper part of the holding sleeve and providing the same with an external screw thread and one or more longitudinal slits 11, and engaging this threaded portion of the sleeve by means of a conical internally threaded clamping sleeve 12, as shown in Figs. 1, 3 and 4. Upon tightening the clamping sleeve the jaws which are formed by slitting the upper end of the holding sleeve are caused to pinch or grip against the periphery of the supporting rod and hold the same in place but when the clamping sleeve is loosened the jaws of the holding sleeve are released from the supporting rod, thereby permitting the latter to be raised or lowered for bringing the lower pointed end of the marker to the desired position.

The lower part of the holding sleeve is arranged in a horizontal slot 13 formed lengthwise in a horizontal supporting arm 14 which projects laterally from the head of the sewing machine. When sewing a piece of fabric at intervals which occur in a direction lengthwise of the edge of the fabric this supporting arm projects forwardly from the head of the sewing machine. By moving the holding sleeve or carrier horizontally forward or backward in the slot of the supporting arm the distance between the marker and the sewing needle can be adjusted to suit the distance at which it is desired that the sewing operations on the garment shall be apart from one another. For this purpose the carrier or supporting sleeve is secured in the slotted supporting arm after adjustment, preferably, by means of downwardly facing shoulders 15 formed on an enlargement on the lower part of the holding sleeve and engaging with upwardly facing longitudinal flanges or shoulders 16 formed on the inner side of the longitudinal walls of the slot of the supporting arm, and a screw nut 17 engaging with the externally threaded lower end of the supporting sleeve and bearing against the underside of the supporting arm. When the screw nut 17 is loosened the holding sleeve may be freely adjusted horizontally toward and from the head of the sewing machine for adjusting the position of the marker relatively to the sewing needle and after the marker has been shifted to the desired position the same is firmly held there by tightening this screw nut.

In order to enable the operator to adjust the marker quickly and with facility to a predetermined position relatively to the sewing needle the holding sleeve is provided with a pointer or indicator 18 which traverses a scale or graduation 19 formed on one side of the supporting arm, as shown in Fig. 6.

At its rear end the supporting arm is provided with two lugs 20, 21 projecting later-

ally in opposite directions one of which 20, preferably that at the right, is provided with a perforation so as to form an eye while the other 21 at the left is provided with a slot so as to form a hook. The eye 5 20 is pivoted by means of a clamping screw 22 to a lug 23 on a supporting bracket 24 on the lower part of the machine head, so that the supporting arm can swing in a horizontal plane, and the hook of this arm is 10 secured by a clamping screw 25 to a lug 26 on the bracket 24 which screw enters the mouth or slot of the hook, as shown in Fig. 2. The lugs 23, 26 are arranged on opposite 15 sides of the head of the sewing machine when viewed from the front and when the supporting arm is secured to the same it projects forwardly therefrom and in this position of the parts, which is represented 20 by full lines in Figs. 1 and 2, the marking device is adapted for marking the places on the fabric where the sewing operations are to be performed in a direction fore and aft of the machine.

25 When it is not desired to use the marking device or when it becomes necessary to inspect, clean or repair the sewing mechanism, the clamping screw 25 at the left of the supporting arm is loosened which permits of 30 swinging the supporting arm laterally from the position shown by full lines in Fig. 1 to the position shown by dotted lines in the same figure, whereby the sewing mechanism is accessible with greater convenience.

35 In some kinds of work it is desirable to move the fabric laterally relatively to the sewing mechanism for successively performing the sewing operations at intervals thereon. For the purpose of permitting the 40 marking device to be used for marking the fabric where the sewing operations are to be performed when the fabric is thus moved laterally, means are provided for shifting the supporting arm and the parts carried 45 thereby so as to effect the marking of the goods in this manner. This may be accomplished, for instance, by providing the bracket 24 with an additional lug 27 at the rear of the right hand side of the sewing 50 machine head. This enables the supporting arm to be shifted from the forwardly projecting position on the sewing machine head, as shown by full lines in Fig. 2, to a laterally projecting position relatively thereto, as 55 shown by dotted lines in Fig. 2. In this shifted position the hook 21 and eye 20 of the supporting arm are secured by the screws 22, 25 to the lugs 23, 27 of the bracket.

60 For convenience in attaching this marking device to sewing machines which have already been manufactured the bracket 24 is preferably constructed in the form of a split collar, the sections of which are applied to opposite sides of the sewing machine head and securely clamped to the same 65

by means of screws 28 which connect the sections of the bracket, as shown in Figs. 1 and 2.

If desired the sewing machines may be made up in the factory for receiving the 70 lugs 20, 21 of the supporting arm and permit of dispensing with the separate supporting bracket 24. In this case the head 29 of the sewing machine is provided with perforated lugs 30, 31, 32 which are formed 75 integrally with the head and spaced to correspond with the lugs 25, 26, 27 of the bracket 24 so as to adapt the same for receiving the lugs of the supporting arm in either a forwardly projecting position relatively to the 80 head or in a laterally projecting position relatively to the same.

Instead of constructing the marker in the form of a needle, awl, pencil or crayon which is attached to the lower end of a supporting rod, as shown in Figs. 1 and 3, an 85 upright fountain pen or tube 33 adapted to contain a liquid of suitable color may be substituted for the marker and the supporting rod, shown in Figs. 1 and 2. Such a 90 tube is shown in Fig. 6 and is provided with a comparatively wide opening at its upper end and a contracted or narrow opening at its lower end. Upon raising the fabric to be marked against the lower end of the 95 fountain pen or tube, a small quantity of the liquid or ink escapes from the lower end thereof and is deposited upon the fabric, thus marking the place where the operator should perform the next sewing operation 100 on the fabric. This last-mentioned liquid marker is particularly desirable for marking thick or heavy woolen goods or like fabric upon which no prick mark can be made by a needle or awl which would be visible 105 to the eye and the substitution of color in this case for a prick mark therefore enables the operator to perform sewing operations at intervals on fabric of this character with the same facility as on goods which 110 are capable of being marked by a needle, pencil or crayon. The liquid used in the fountain pen should be of a character that it will not harm the fabric and will not be absorbed by the fabric but will only dry or 115 harden on the surface of the fabric touched by the marker and thus form a visible guide for the operator.

I claim as my invention:

1. In a machine of the character described, a needle or operating member, and a marking device comprising a marker which is normally stationary and fixedly arranged 120 above the path of the fabric which is being operated upon, said marker being also 125 arranged in front of the needle or operating member and on a line which passes through said needle or operating member and which is parallel with the direction of movement of the fabric as it is fed past the needle or 130

operating member, and means for supporting the marker in said fixed position during the marking operation.

2. A marking device for sewing and fastening machines comprising an arm adapted to be mounted on the head of the machine, a holder adjustable lengthwise of said arm and comprising an upright holding tube having its upper end slotted and threaded externally, a screw threaded clamping sleeve engaging with the thread of said holding tube, a supporting rod arranged in said holding tube, and a marker arranged on said supporting rod.

3. In a machine of the character described, a needle or operating member, and a marking device comprising a marker which is normally stationary and fixedly arranged above the path of the fabric which is being operated upon, said marker being also arranged in front of the needle or operating member and on a line which passes through said needle or operating member and which is parallel with the direction

of movement of the fabric as it is fed past the needle or operating member, means for adjusting the marker so that it can stand opposite different sides of the needle or operating member, and means for supporting the marker in said fixed position.

4. A marking device for sewing and fastening machines comprising a supporting arm, a marker mounted on the supporting arm, and means for connecting said arm with the machine so as to project either forwardly or laterally therefrom comprising three lugs arranged at the front and side of the head of the machine, a hook and an eye arranged at the rear end of said arm, and bolts whereby said hook and eye may be connected with two of the lugs at the front or at the side of the machine head.

Witness my hand this 16th day of January, 1911.

SOLOMON F. SCHEU.

Witnesses:

THEO. L. POPP,
ANNA HEIGIS.

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