ABSTRACT OF THE DISCLOSURE

A device for positioning buttonholes and buttons on a piece of material and marking the positions consists of a plate having a straight edge along at least one side and a row of T-shaped apertures adapted for guiding a marking instrument applied through a selected aperture. The stem and crossbar of each aperture are the same length and represent, respectively, the two usual alternative positions for a buttonhole of that length; the lengths of the stems and crossbars of the respective apertures are different to provide a selection of buttonhole lengths. The apertures are arranged with their stems parallel to each other and with their crossbars parallel to, and spaced a measured distance from said straight edge, thereby enabling a horizontal or a vertical buttonhole of a selected size, or a corresponding button therefrom, to be positioned a desired distance from an edge of said piece material.

This invention is a template device for positioning buttonholes and buttons on garments and the like by locating selected positions on the garment and providing means for guiding a marking instrument, such as a stick of chalk, or a pencil, to mark the selected positions and selected dimensions of the buttonholes on the garment. When buttons and buttonholes are to be provided on garments or other articles for fastening two edges together, the size of the buttons to be used are first determined. Then, after the amount the edges are to overlap in buttoned position and the spacing between the cooperating buttons and buttonholes along the edges are determined, the appropriate locations of the buttons and buttonholes and the lengths and directions of the buttonholes to receive the buttons are determined by measuring and marking the measured locations on the material with chalk, soap or other suitable marking material. This involves a number of different measurements for each button and buttonhole. In addition to being time consuming, making the necessary measurements and markings requires great care and close attention in order to have the buttons and buttonholes accurately positioned so as to provide a neat appearance and to fasten in the proper alignment for preserving the desired hang and drape of the garment.

It has been observed that in the tailoring and garment design art the size and position of the buttons and buttonholes for the majority of garments are selected from a relatively small number of standard sizes and positions. For example, the lengths of buttonholes, which are made slightly larger than the diameters of the buttons for them, are usually in a range of from about $\frac{3}{4}$ inch to 1 inch long and generally vary in uniform increments within this range; within this range they are ordinarily $\frac{1}{2}$, $\frac{3}{4}$ or 1 inch from the edge of the material and are either parallel or at right angles to the edge. The buttonholes are customarily positioned with their centers from about $\frac{3}{4}$ inch to about 2 inches from the other, underlapping, edge.

It is therefore an object of the present invention to provide a single template device for placing the positions of a range of buttonholes and buttons of different sizes on the material of garments or other articles, and for enabling the positions, and the correct lengths of the buttonholes, to be marked on the material.

The template device of this invention is a plate having at least one straight edge and a number of T-shaped apertures, each having a stem intersecting the midpoint of a crossbar at right angles. The stem and crossbar of each aperture are the same length and represent, respectively, the two usual alternative positions for a buttonhole of that length; the lengths of the stems and crossbars of the respective apertures are different to provide a selection of buttonhole lengths. The apertures are arranged with their stems parallel to each other and with their crossbars parallel to, and spaced a predetermined distance from the straight edge so that the buttonholes may be placed that distance from the edge of the material in which the buttonhole is to be made by placing the straight edge adjacent to the edge of the material. Additional lines or straight edges are preferably provided parallel to the line of crossbars at predetermined distances therefrom to supply alternative reference lines with which to space the buttonholes from the edge of the material. The apertures provide slots for guiding a marking instrument for marking the positions and lengths of the buttonholes. The apertures are also utilized for placing and marking the positions of buttons, the ends of the stems of the apertures normally being alternative indicator points for the center of a button when the straight edge is adjacent to the edge of the material.

For convenience in measuring the distance between buttonholes or button centers along the edges of the material an edge of the device is suitably provided with graduations, such as gradations for inches and fractions of inches.

This invention thus provides a single template device which is simple to use for accurately positioning buttonholes and buttons of various sizes. It reduces the time normally required to make the different measurements and position markings for buttonholes and buttons and assures uniform alignment and positioning of different buttonhole and button combinations when there are more than one such combination spaced along overlapping edges of a garment or article—as is usually the case.

Further objects, advantages and features of the template device of this invention will be apparent from the following description of illustrative embodiments depicted in the accompanying drawings in which:

FIG. 1 is a plan view of a template device of this invention;

FIG. 2 is a plan view of a portion of a modification of the template device of FIG. 1, showing a modified form of the alternative straight edges of the device; and

FIG. 3 is a front view of a garment illustrating the manner of using a template device of this invention for positioning buttonholes and buttons.

Referring to FIG. 1, a template device in accordance with the invention is a flat plate 10 having outer straight edges 11 and 12 along opposite sides thereof, and having a number of T-shaped apertures, 13a-h, for receiving and guiding a marking instrument, such as a stick of chalk or tailors' soap, or a pencil, to make a mark on material on which the plate 10 is laid.

The plate 10 is made of conventional material, such as metal or a plastic, which will not break or chip. It is preferably made of a transparent material and may be rigid or flexible.

The T-shaped apertures 13a-h each have a stem 14 intersecting a crossbar 15 at right angles and the lengths of the stem and crossbar of each aperture are the same, to represent alternative positions of a buttonhole of that length at right angles to each other. As seen in FIG. 1, the lengths of the stem 14 and crossbar 15 of the respective apertures 13a-h are different and thus provide a selection of different buttonhole lengths. The respective buttonhole...
Lengths are suitably marked on the plate 10 and FIG. 1 shows an illustrative range of lengths, appropriately marked. The apertures 13a–h are arranged in two rows, 13a–d and 13e–h, with the crossbars 15 of the apertures in each row spaced apart in end-to-end relation to one of the outer straight edges 11a, 11b. The stems 14 of the apertures in each row are parallel to each other and extend from the sides of the crossbars which are opposite the straight edge associated with that row. Specifically, in FIG. 1 the crossbars 15 of apertures 13a–d are parallel to the right straight edge 11a at the right side of the plate 10 and the stems 14 of these apertures extend to the left, while the crossbars 15 of apertures 13e–h are parallel to the outer straight edge 11b at the left side of plate 10 and stems 14 of these latter apertures extend to the right. The apertures, of course, may all be in a single row with respect to a straight edge at one side only of the plate 10, or they could be in several rows with each row being associated with an outer straight edge at one side of a polygonal shaped plate 10. However, the form of the device shown in FIG. 1, in which the apertures 13a–h are in two rows relative respectively to straight edges 11a and 11b at opposite sides of the plate 10, provides a particularly handy, easy-to-use form.

For positioning the buttonholes in from an edge of the material in which the buttonholes or buttons are to be positioned, the line of crossbars 15 of each row of apertures, 13a–d and 13e–h, is spaced and measured (and appropriately marked) distance from the outer straight edge, 11a or 11b, with which the line of crossbars is associated, and additional straight edges or lines, such as lines 16a and 16b and 17a and 17b, are provided at spaced intervals respectively between (and parallel to) the outer straight edges 11a and 11b and the aperture crossbars 14 associated therewith. For purposes of illustration, in FIG. 1 the outer straight edges 11a and 11b are shown one inch from the respective lines of crossbars 15 associated therewith and the additional straight edges or lines 16a, 16b and 17a, 17b are 3/4 inch and 1/2 inch therefrom, respectively. Thus, for spacing a buttonhole 1 inch, 3/4 inch or 1/2 inch from an edge of material in which a buttonhole is to be made, the plate 10 is placed on the material with one of the respective straight edges or lines 11a or 11b, 16a or 16b, or 17a or 17b adjacent to the edge of the material. The particular spacing of the lines of crossbars 15 from the outer straight edges 11a, 11b and the numbers and spacings of additional straight edges or lines between the outer straight edges and the lines of crossbars may, of course, be different from the spacings and numbers of additional straight edges or lines illustrated herein and will be determined by the requirements of the particular garment or other manufacturing operation in connection with which a form of the device of this invention is intended to be used.

When the plate 10 is made of transparent material, one or the other of the additional straight edges or lines 16a, 16b or 17a, 17b may be aligned with an edge of material, on which the device is placed, by observation through the transparent plate. If the plate 10 is not transparent, the desired straight edge or line is aligned with the edge of the matiral under it by shifting the plate around until the ends of the desired straight edge or line—which extend to the end edges 11a and 11b of the plate 10 shown—are respectively adjacent to the edge of the material.

In a preferred form of the device one or more round apertures, such as the aperture 23, are provided with their center or centers at a predetermined distance from one or the other straight edges 11a, 11b for positioning eyelets, hooks and eyes and the like in the same manner in which the apertures 13a–h are utilized for positioning buttonholes and buttons. The aperture 23 in the drawing is illustrated as being 9/16 inch in diameter with its center about 1 3/4 inches from the outer straight edge 11a, but a number of such apertures of various dimensions may be provided.

An alternative form of the device is illustrated in FIG. 2, in which the additional straight edges or lines between the crossbars 15 and the outer straight edge 11a (or 11b) are provided by a line of slots (not shown) and the crossbars 15b and 17b' not shown) which may be aligned with an edge of material below by observation through the respective slots.

FIG. 3 illustrates the manner of using a device of this invention for positioning buttonholes which are to be made along, and spaced from, an edge 20 (right) of the garment shown, and for positioning buttons which are to be attached along, and spaced from, an adjacent edge 21 of the garment.

After deciding upon the number and size of the buttons and corresponding buttonholes and the distance they are to be spaced apart along the edges 20 and 21 of the garment, marks, as indicated by marks 22, are made at spaced points along the respective edges 20, 21 to indicate the desired spacing. The rule along the straight edge 11a of the plate 10 is suitably used for placing the spacing marks 22.

In the example shown in FIG. 3 the buttonholes are to 1 inch long horizontal buttonholes spaced 1 inch in from the edge 20. The plate 10 is therefore placed on the right side of the garment with its outer straight edge 11a adjacent to the garment edge 20, and with the stem 14 of its aperture 135 in line with one of the marks 22 which was previously made on the edge 20. For a horizontal buttonhole a horizontal mark is made on the material with a stick of chalk, a pencil or other suitable marking instrument, drawn on the material along the length of the stem 14 of aperture 135. For a vertical buttonhole of the same dimensions, the mark would be made along the length of the crossbar 15 of the aperture 135. Then the plate would be moved to the next mark 22 on edge 20, and the marking procedure repeated.

To mark the positions for corresponding buttons along, and in from, the other edge 21, the plate 10 is turned end for end and placed on the left side of the garment with its outer straight edge 11a adjacent to the garment edge 21, and with the stem 14 of its aperture 135 in line with a mark 22 on the edge 21. In this instance the position of the center of a button is marked on the material with a dot made by applying the marking instrument through the outer end of the stem 14 of aperture 135 indicated at 23. This places the position for this button 2 inches in from the edge 21. If it were desired to have the button only 1 inch in, the dot would be marked at the inner end of the stem 14 where it intersects the crossbar 15. The positions for the other buttons are then made by moving the plate 10 to the next mark 22 on edge 21 and marking another dot on the material in the same manner.

The embodiments of the template device of this invention, shown in the drawings and described in detail above, are for the purpose of illustrating specific examples of the invention and it will be understood that some modifications may be made in the structure, arrangement and dimensions of the elements of these exemplary embodiments without departing from the scope of the invention.

What is claimed is:

1. A device for positioning buttonholes and buttons on material comprising a plate having a plurality of T-shaped apertures therethrough, a line of slots for receiving an marking instrument for marking a selected portion on material on which the device is placed, the T-shape of each aperture consisting of a stem portion intersecting and terminating at the center of a crossbar portion at right angles thereto, the length of the crossbar portion and stem portion being the same to represent alternative positions of a buttonhole of said length, the length of the stem portion and the crossbar portion of different apertures being different for providing a selection of differ-
5. The device of claim 1 having at least one elongated straight slit through the plate parallel to the line of crossbars a predetermined distance therefrom, for locating a selected aperture relative to a line on said material the distance between the crossbar portion of said aperture and the slit by placing the plate on the material with the slit over, and coinciding with, the line on the material.

6. The device of claim 5 in which the lengths of the stem portions and crossbar portions of the respective apertures in the second plurality are different from the lengths of the stem portions and crossbar portions of the other apertures in both the first and second pluralities of apertures for providing a variety of lengths corresponding to different buttonhole lengths.

7. The device of claim 5 in which the plate is transparent and which includes at least two straight lines marked on the plate, one of said straight lines being between the line of crossbar portions of the first plurality of apertures and the first straight edge, the other of said straight lines being between the line of crossbar portions of the second plurality of apertures and the second straight edge, said straight lines being parallel to the respective lines of crossbar portions a predetermined distance therefrom for locating a selected aperture relative to a line on said material the distance between the crossbar portion of said aperture and the line on the plate by placing the plate on the material with said line on the plate adjacent the line on the material.

8. The device of claim 1 including at least one substantially round aperture therethrough for positioning eyelets and the like, the center of each of said apertures being spaced a predetermined distance from said straight edge.