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(54) **TRANSPARENT BLOCK TEMPLATE FOR QUILTING AND EMBROIDERY**

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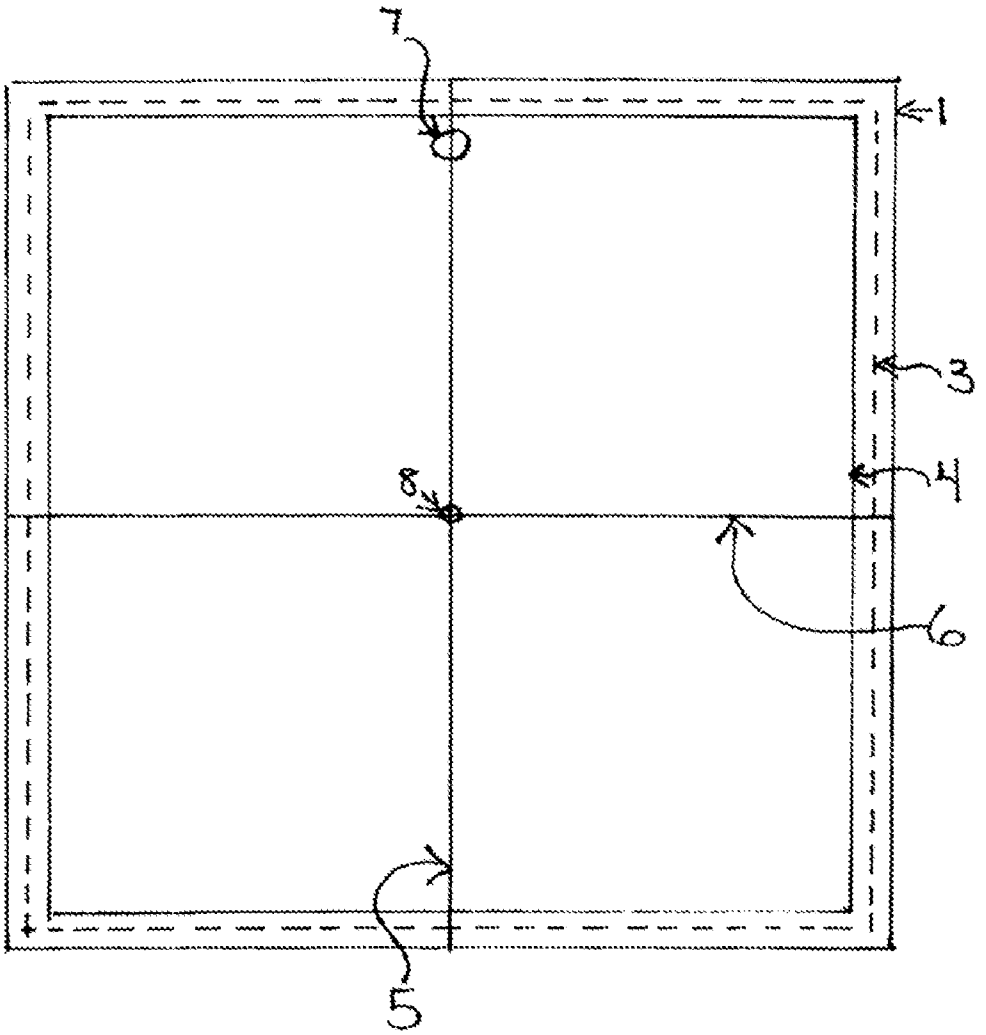
(57) **ABSTRACT**

A template in multiple sizes for use in quilting and embroidery to easily and consistently align, orient, and cut T-shirts and other sources of material to the correct size and with the desired artistic effect. The templates are sized specifically for the purpose of cutting shirts, embroideries, and other items into blocks for quilts and other projects. They are transparent with only a minimum of lines for alignment and placement versus a typical ruler that has many lines on it for measurement. There is a center hole to easily facilitate marking the center of the design or embroidery location. They are in all the sizes needed for making a block for a quilt or similar projects, not all of which are available on the market today. Other embodiments are described.



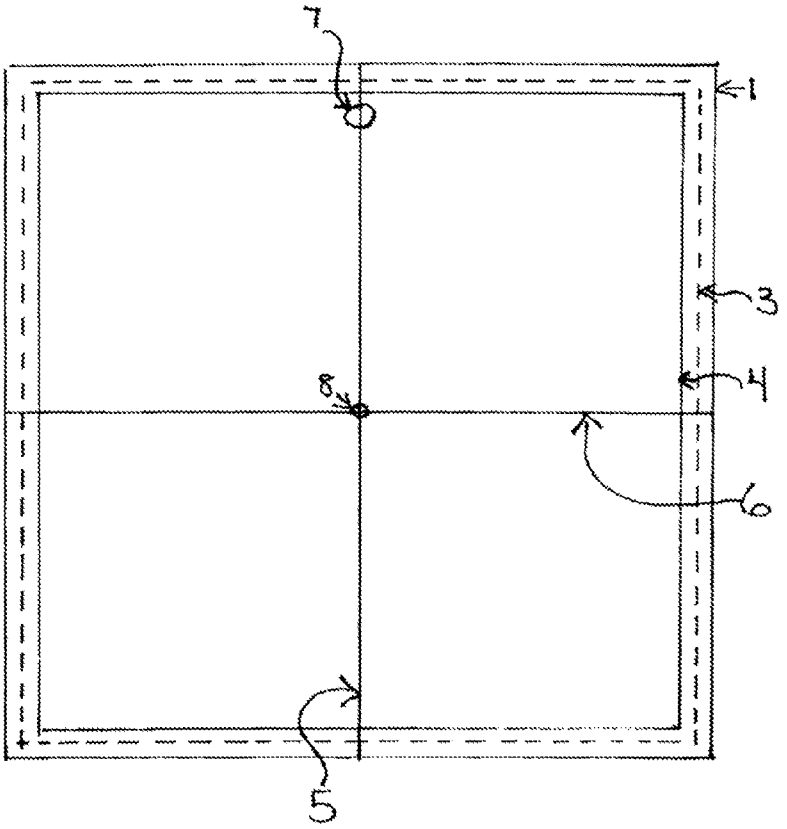


Fig 1

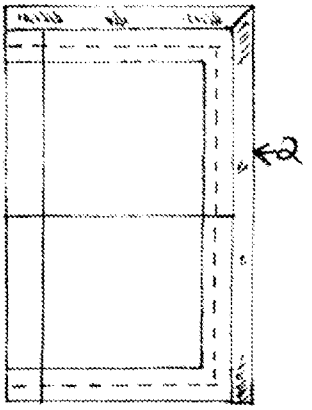


Fig 2

TRANSPARENT BLOCK TEMPLATE FOR QUILTING AND EMBROIDERY

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of provisional patent application 61/827879, filed 2013 May 28 by the present inventor, which is incorporated by reference.

BACKGROUND

Prior Art

[0002] The following is a tabulation of some prior art that presently appears relevant:

U.S. Patents

Patent Number	Kind Code	Issue Date	Patentee
4,779,346		Oct. 25, 1988	Randal D. Schafer
Des. 311873		Nov. 6, 1990	Robert G. Arend
5,557,996	A	Sep. 24, 1996	Jill A. & James K. Reber
5,791,062	A	Aug. 11, 1998	Jane Sarah Walker
7,251,898	B2	Aug. 7, 2007	Randal D. Schafer
7,568,295	B1	Aug. 4, 2009	Darline Strain
D601442	S1	Oct. 6, 2009	Penny D. Haren
7,730,842	B1	Jun. 8, 2010	Sharon Sebrow
7,770,303	B2	Aug. 10, 2010	Kym Joanne Graham & Ann Margaret Duncan
7,854,073	B1	Dec. 21, 2010	James L. Webb
8,186,073	B2	May 29, 2012	Patti L. Nethery

Non-Patent Literature Documents "T-Shirt Transformation Ruler", Item JT-1704, June Tailor, Inc., store.junetaylor.com

[0003] Quilt blocks and embroideries are made in various sizes and from a variety of fabrics depending upon such factors as the final size of the quilt and artistic design to be incorporated. During the creation of a quilt these blocks are sewn together to form an outer surface (top and/or bottom) of the quilt. Consistency of block shapes and sizes is an important factor in determining the quality of the finished quilt.

[0004] Most rulers and other cutting aides currently available have numerous opaque markings and lines on them for measurement and alignment. For example, the devices shown in U.S. Pat. Nos. 4,779,346, 5,791,062, 7,251,898, 7,730,842, 7,770,303, 7,854,073, 8,186,073, and D601,442 all include a plurality of lines and markings for various identification and measurement purposes. Once placed over the item needing to be cut these markings obscure the design present on the underlying material, making it difficult to center, orient and align the design in preparation for cutting. This process is critical when the design is irregular and/or non-repeating as the results contribute to the artistic rendering in the final block and quilt.

[0005] Some rulers and templates, for example the devices shown in U.S. Pat. Nos. 7,770,303 and 8,186,073, include multiple apertures in the body portion for inserting marking devices to mark the underlying fabric. These apertures are typically established at angular locations in addition to the center, creating confusion as to which is the appropriate aperture to use, especially for novice users.

[0006] These rulers are also not available in all the typical block sizes; therefore cutting items requires additional measurement and calculation, increasing the work needed and chance for errors in the cutting process. For example, the "T-Shirt Transformation Ruler" from June Tailor, Inc. is available only in a single size, requiring measurement, movement, marking, and cutting to achieve blocks in sizes smaller than their 15-inch (final size) standard.

[0007] All rulers and templates heretofore known suffer from a number of disadvantages:

[0008] (a) The many markings and lines included for measurement obscure the design on the item they are placed on. This creates inaccuracies as the user attempts to center, align, and orient the design to create the desired artistic effect in the final product.

[0009] (b) The availability in only a limited number of standard sizes requires multiple measurements to achieve the typical finished block sizes used in quilting, embroidery, and other similar endeavors. The need for multiple measurements increases error rates and compounds tolerances, resulting in inconsistent block sizes from cut to cut and degrading the quality of the finished quilt.

[0010] (c) Centering an item to be cut requires multiple measurements, math to determine the distance to the center, markings to indicate the center, then replacement of the ruler or template on top of the item to be cut. The multiple steps introduce numerous opportunities for errors in determining the center point, creating misaligned final block designs.

SUMMARY

[0011] In accordance with one embodiment the transparent block template for quilting and embroidery comprises a uniform thickness, transparent square, with minimal lines and markings to assist the user in centering, aligning, orienting, and easily cutting blocks of uniform size for quilts, embroideries, and other similar projects.

Advantages

[0012] Accordingly several advantages of one or more aspects are as follows: to provide clear views of designs on the underlying material for placement and alignment prior to cutting, to reduce measurement errors and increase consistency of final block sizes thereby improving the overall quality of the finished quilt, to reduce the effort to identify the block center, and ease of manufacture provides for the economical creation of templates in multiple sizes specifically for the purpose of cutting T-shirts, embroideries, and other items into blocks for quilts, embroideries, and other similar projects.

DRAWINGS

Figures

[0013] FIG. **1** shows the front planar view of an embodiment of the template with various horizontal and vertical lines and through-holes.

[0014] FIG. **2** shows a partial isometric view of an embodiment of the template.

[0015]

Drawings - Reference Numerals

1 template	2 side edge
3 outer alignment mark	4 inner alignment mark

-continued

Drawings - Reference Numerals	
5 vertical alignment line	6 horizontal alignment line
7 hole	8 center hole

DETAILED DESCRIPTION

[0016] FIGS. **1** AND **2**

First Embodiment

[0017] One embodiment of the template is illustrated in FIG. **1** (front view) and FIG. **2** (partial isometric view). The template is a uniform cross section **2** of rigid or semi-rigid, transparent material of sufficient density so as to guide the cutting tool without wear or ablation. In this embodiment, the material is acrylic, available from multiple suppliers; however, the template can be manufactured from any other material that is transparent, will not fracture or fold, and is resistant to ablation from cutting knives guided along its edges. Alternative materials such as Plexiglas, Lexan, and other trademarked variants are readily available. The template **1** is typically 0.0625 to 0.1875 inches or 1/16th to 3/16th of an inch in thickness resulting in a side edge **2** of this dimension and has overall dimensions from 2 inches×2 inches to 18 inches×18 inches (square shape). Manufacturing of the base template **1** can be accomplished via stamping, laser cutting, or similar methods appropriate for the material used.

[0018] The minimal markings and lines on the template include the outer alignment marking **3** placed 0.25 inches or ¼ inch in from each outer edge of the template. This marking is a uniform width black broken (dashed) line **1** to **3** points in size completely around the perimeter. The inner alignment mark **4** is placed 0.5 inches or ½ inch in from each outer edge of the template and is a uniform width black solid line **1** to **3** points in size completely around the perimeter. The vertical alignment line **5** is a uniform width solid black line **1** to **3** points in size the full height of the template, centered between the left and right edges of the template, bisecting it vertically. The horizontal alignment line **6** is another uniform width solid black line **1** to **3** points in size the full width of the template centered between the top and bottom edges of the template, bisecting it horizontally. There are multiple processes available to manufacture the markings and lines including etching, silk screening, and other printing methods.

[0019] Two through-holes are created in the template. Hole **7** is a 5/16-inch diameter hole (plus/minus 1/16 inch) placed at the horizontal center of the device, 1 inch down from top edge. Center hole **8** is a 3/32-inch diameter hole (plus/minus 1/32 inch) located at the intersection of the vertical alignment line **5** and the horizontal alignment line **6**. Through-holes can be created using drilling, laser cutting, or similar processes appropriate to the material of the base template **1**.

Operation

FIG. 1

[0020] To cut T-shirts, embroideries, and other materials place the template **1** of an appropriate size determined by the final block size on top of the item so that any design and its orientation is visible through the template. The inner alignment mark **4** is used to identify what will be seen in the finished block. Using the inner alignment mark **4**, the user orients the design or portion of the design desired in the finished quilt or project. The final design to be placed in the quilt or other project must be inside the inner alignment mark **4** in order to see it in the final quilt/project. The horizontal alignment line **6** and the vertical alignment line **5** are used to straighten, center and align the template **1** on the underlying design as desired within the finish area delineated by **4**, shifting the template **1** around the design to achieve the look, orientation, or effect desired in the final quilt or project. Once the user is satisfied with the appearance of the design, as seen through the template **1**, they optionally mark the center using a pencil or other marking instrument and the center hole **8**. A rotary cutter or other appropriate cutting tool is used to cut the T-shirt, embroidery, or other material around the perimeter of the template **1**, without lifting or moving the template **1**, to create the square/block for the quilt or other project. After cutting, the outer alignment mark **3** shows where the sewing seam will be when putting the blocks together in the construction of the quilt or other project. Hole **7** is a mounting hole to allow storage of the template on a nail or other hanging device.

Additional Embodiments

[0021] There are various other possibilities with regard to the color of the markings (**3**, **4**) and lines (**5**, **6**). The color of these markings and lines may also be white, blue, red, green, or yellow, all of which provide contrast with typical quilt and embroidery fabric. Markings and lines on the template **1** may be of a single color or different colors to differentiate function. For additional applications where a square is not the desired final block shape the embodiment of the template **1** has overall dimensions from 2 inch×3 inch to 12 inch×18 inch (rectangular shape).

Advantages

[0022] From the description above, a number of advantages of some embodiments of the templates become evident:

[0023] (a) designs present on the underlying material are easily visible to facilitate alignment, orientation, and centering to achieve the desired artistic effect within the block prior to cutting.

[0024] (b) center marks are easily created after the underlying design is aligned and oriented to achieve the desired artistic effect.

[0025] (c) combination blocks are easily developed that utilize the rectangular embodiment of the template to combine two half blocks into one full block, providing for the cutting of the full block with a single template and cut.

Conclusion, Ramifications, and Scope

[0026] The reader will see that at least one embodiment of the transparent block template provides its user with an easier and convenient way to more accurately and uniformly cut T-shirts, embroideries, and other materials while ensuring the designs on these items are correctly placed and aligned within the final block to achieve the desired artistic effect. Uniformity of quilt blocks enhances the ability of even a novice quilter to create a squared up quilt. Furthermore, the inclusion of a center hole has the additional advantage in that it permits

embroiderers to easily find and mark the block center prior to starting the embroidery, ensuring the final design is correctly centered.

[0027] Additionally, blocks for quilts, embroideries, and similar projects are created in multiple sizes depending upon the desires of the crafter or artist. The ease of manufacture and readily available materials allow for the creation of sets of templates for specific purposes such as the smaller blocks favored by embroiderers.

[0028] Although the description above contains many specificities, these should not be construed as limiting the scope of the embodiments but as merely providing illustrations of some of several embodiments. For example, the template can have additional markings; use different line types; include different color markings and lines depending upon their purpose, etc.

[0029] Thus the scope of the embodiments should be determined by the appended claims and their legal equivalents, rather than by the examples given.

I claim:

1. A template for aligning and orienting designs and guiding a cutting tool to construct uniformly sized quilt blocks consisting of:

2. a rectangular shaped body member having four edges and a front surface and a rear contacting surface.

3. the body member of claim **2** wherein said body is a uniform thickness transparent material enabling items with designs placed under it to be clearly discerned, including the details of the design.

4. single horizontal and vertical alignment lines as a means to align and orient the underlying design with said template of claim **1** without obscuring the design details in order to achieve the desired artistic effect.

5. a single inner alignment marking around the perimeter of said template of claim **1** as a means to identify the portion of the underlying design which will be visible in a block after cutting and assembly.

6. a single outer alignment marking around the perimeter of said template of claim **1** as a means to identify the seam location used during final block assembly.

7. a through-hole at the geometric center of said template of claim **1** as a means to allow for the marking of the center point on the underlying design.

8. a single through-hole near the top center of said template of claim **1** as a means to enable hanging for vertical storage.

9. A template for aligning and orienting designs and guiding a cutting tool to construct embroideries consisting of:

10. a rectangular shaped body member having four edges and a front surface and a rear contacting surface.

11. the body member of claim **10** wherein said body is a uniform thickness transparent material enabling items with designs placed under it to be clearly discerned, including the details of the design.

12. single horizontal and vertical alignment lines as a means to align and orient the underlying design with said template of claim **9** without obscuring the design details in order to achieve the desired artistic effect.

13. a single inner alignment marking around the perimeter of said template of claim **9** as a means to identify the portion of the underlying design which will be visible in a block after cutting and assembly.

14. the inner alignment marking of claim **13** wherein said inner alignment marking is used to place embroidery on an already completed item as a means to identify the proper placement of the design to achieve the desired artistic effect.

15. a single outer alignment marking around the perimeter of said template of claim **9** as a means to identify the seam location used during final block assembly.

16. a through-hole at the geometric center of said template of claim **9** as a means to allow for the marking of the center point on the underlying design.

17. the through-hole of claim **16** wherein said through-hole is used to place an embroidery on an already completed item as a means to identify the center of the design for proper placement within the completed item.

18. a single through-hole near the top center of said template of claim **9** as a means to enable hanging or vertical storage.

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