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(54) **METHOD OF MAKING HAND
ACCESSORIZABLE EMBROIDERED
DESIGNS**

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(57) **ABSTRACT**

A method of making a hand accessorizable embroidered design, providing a guide for the placement of hand applied ornamental embellishments. Patterns to identify the appropriate placement of ornamental embellishments such as beads, crystals, pearls, rhinestones, and the like, are included within or adjacent to the ornamental embroidery work to facilitate the placement or application of said ornamental embellishments. Said patterns, digitized within the machine embroidered design file, can be in the form of a grid, or openings within the embroidered design, and can be tailored in terms of grid spacings and opening sizes to accommodate varying size ornamental embellishments, allowing a craftsman or artisan to personalize an article.

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Related U.S. Application Data

(60) **Provisional application No. 60/605,451, filed on Aug. 30, 2004.**

Method of Making Hand Accessorizable Embroidered Designs

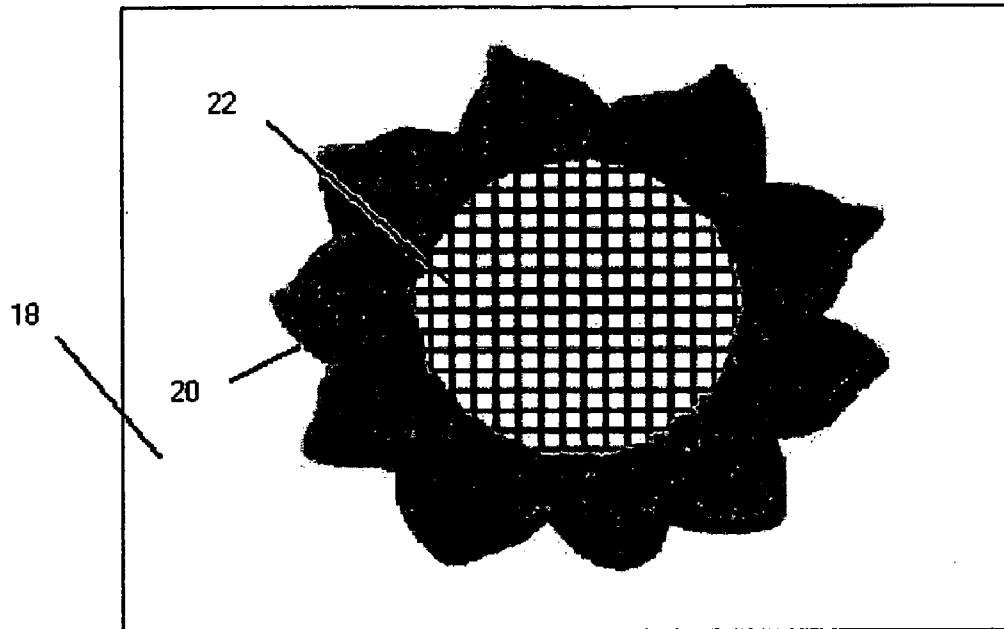


Fig 1

Method of Making Hand Accessorizable Embroidered Designs

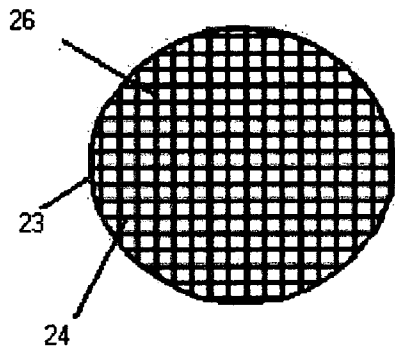


Fig 2a

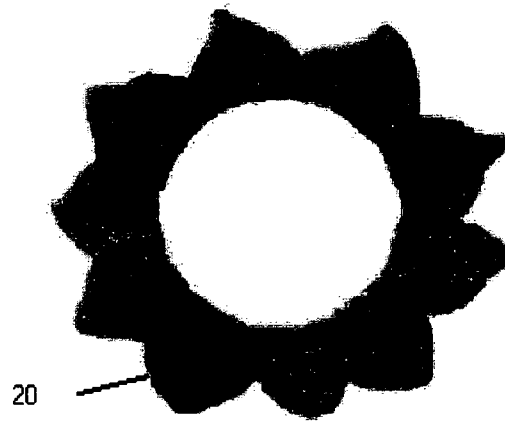
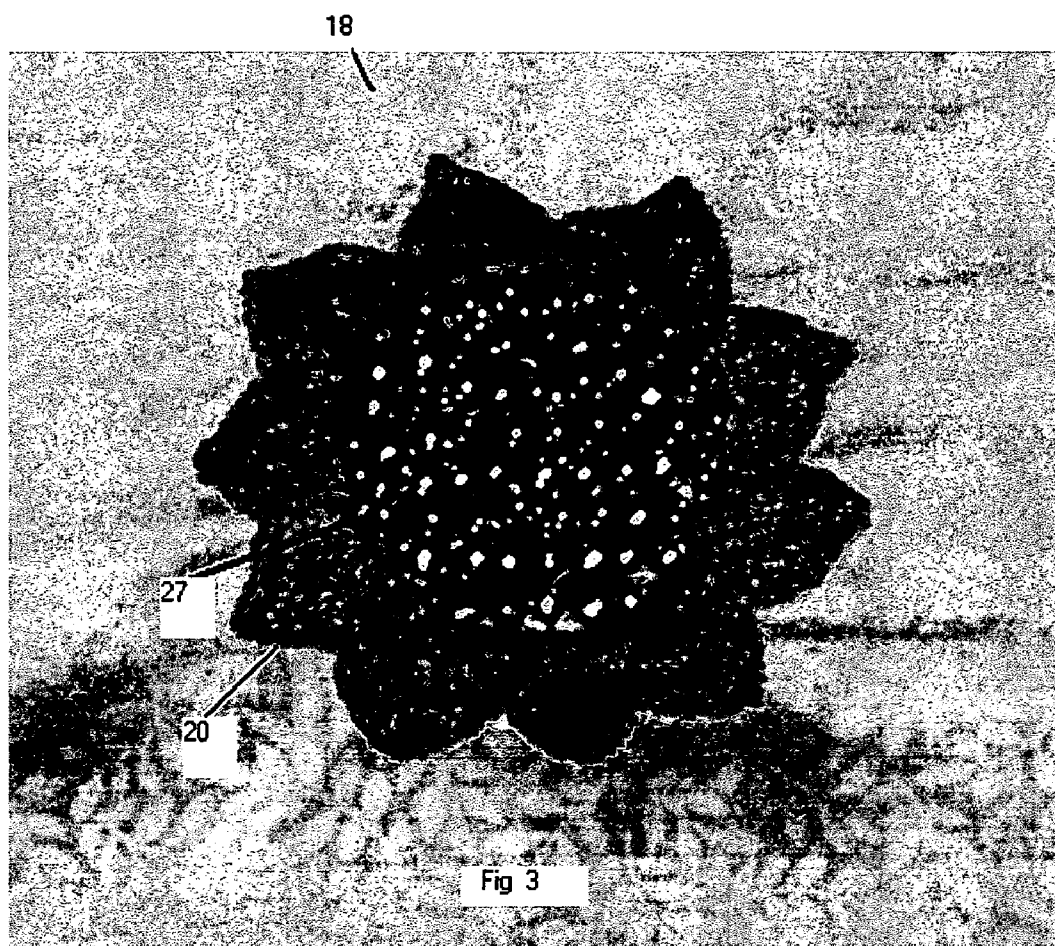


Fig 2b

Method of Making Hand Accessorizable Embroidered Designs



Method of Making Hand Accessorizable Embroidered Designs

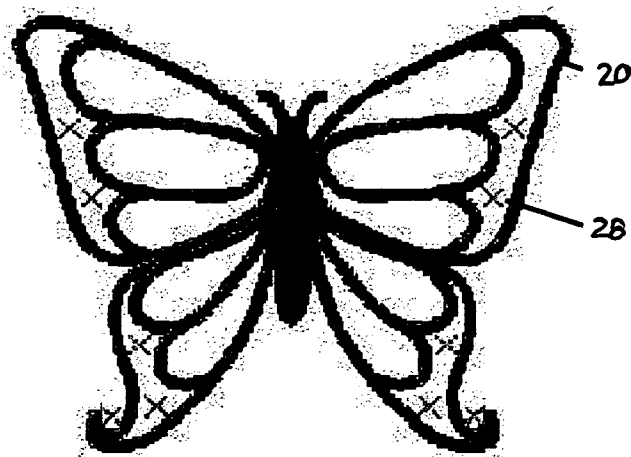


Fig 4

Method of Making Hand Accessorizable Embroidered Designs

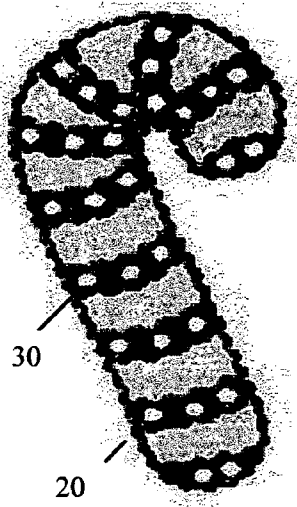


Fig 5a

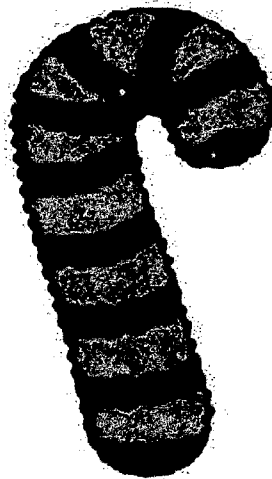


Fig 5b

METHOD OF MAKING HAND ACCESSORIZABLE EMBROIDERED DESIGNS

CROSS-REFERENCE TO PROVISIONAL APPLICATION

[0001] Provisional patent application Ser. No. 60/605451 entitled "Machine Embroidered Hand Beading Design" and filed Aug. 30, 2004 by Deborah Lori McCarter (now know as Debbie Lori Billert, due to recent change in marital status) defined a method to digitize a hand beading pattern into a machine embroidered design file, to give the embroiderer the ability to manually craft a portion of said design to make them personal or unique. This utility patent application claims the benefit of provisional patent application Ser. No. 60/605451.

BACKGROUND

[0002] This invention relates to the method of stitching a pattern within or adjacent to an embroidered design to serve as a guide for the application of other personalized ornamentation, such as beads, crystals, rhinestones, pearls, or any other embellishments chosen by an individual. By using this method, an embroidered design, and included or adjoining pattern, can be provided with personalizing embellishments in a kit, or an individual can find their own embellishments to add to the design.

[0003] Embroidery machines, and methods for creating embroidered designs, as well as the embroidered designs they reproduce, are known. Embroidery machines can produce single or multicolored designs and patterns by stitching embroidery thread of the desired colors in a pre-determined pattern. The embroidery machine usually produces patterns that are recognizable as images of logos, geometric shapes, or articles of any type that can be represented by colored threads on a cloth or fabric layer.

[0004] Methods of adorning fabric or cloth layers with articles such as beads, crystals, rhinestones, or other embellishments using threads, glues, or other attachment means are known. It is frequently desired to attach these or other embellishments by hand, or by some method controlled by an individual person, to create a unique design by the individuals' choice of colors, types of embellishments, attachment methods, or any combination thereof to produce a one-of-a-kind or limited edition item. It is also frequently desired to create patterns of these embellishments that will produce or contribute to the completion of an image or pattern on the surface of the layer of cloth.

[0005] U.S. Pat. No. 4,530,665, issued Jul. 23, 1985 to Shirley R. Colonel, describes a method of stitching a pattern on fabric comprising a piece of interwoven netting having rows of square holes and a desired pattern printed on the netting. The netting is attached to a desired fabric, so that the desired pattern can be reproduced at the desired location on the base fabric layer. This invention relates specifically to a method of hand-embroidery known as needlepoint. The interwoven netting with desired printed pattern provides a uniform guide for creating the needlepoint design. Once the hand-embroidery has been completed, the interwoven netting can be removed by drawing out the threads of the interwoven netting one thread at a time, creating the impression that the needlepoint pattern was created freehand.

[0006] U.S. Pat. No. 5,494,734, issued Feb. 27, 1996 to Cat A. Widders, described a method of stitching beads into a flexible mesh fabric, having evenly spaced and uniform square openings. Beads are placed within the uniform square openings produced in the mesh, and are held in place by running thread through the openings in the beads, and along both sides of the fabric mesh to secure them in place. The method allows the use of beads of various colors and finishes to be used, and the mesh can be printed with a design to be used as a guide for the placement of the beads.

[0007] U.S. Pat. No. 5,481,993, issued Jan. 9, 1996 to Akira Kurihara, describes a method an apparatus for automatically embroidering beads on a cloth, using a continuous bead string. The method and apparatus provide a means produce uniform and high quality, and reducing the time and labor required to produce similar articles by hand.

SUMMARY OF THE INVENTION

[0008] It is an object of the present invention to provide a means of making a hand accessorizable design. It is a further object of the present invention to provide the means to combine a machine embroidered ornamental design with hand accessorizable portion of the design. It is another object of the present invention to provide a grid pattern during the machine embroidery step to facilitate the uniform placement of hand placed embellishments such as beads, crystals, rhinestones, and other embellishments as desired, so that the design can be customized by an individual artist. It is a further object of the invention to digitize a hand beading pattern into a machine embroidery design file. Yet another object of the present invention to give the embroiderer the ability to manually craft a portion of the machine embroidered design, thereby making the design unique to them, and to give the embroiderer the ability to personalize her or his design with the use of beads, crystals, rhinestones, or other embellishments, the color and size of which is their choice.

[0009] Said means of making a hand accessorizable design makes use of an embroidery machine to incorporate a guide for the placement of hand-attached embellishments into a machine embroidered design. The placement guide can be in the first form of a grid pattern within or adjacent to the machine embroidered design, where the grid is produced by digitizing the grid pattern in the embroidery machine as part of the stitched design. The placement guide can also be provided in the second form of a feature such as an 'X' or other identifier, to identify a placement guide for adding embellishments. The placement guide can also be in the third form of openings or areas within the embroidered design that can accommodate the attachment of the desired embellishments. In addition to the benefit of guiding the placement of the embellishment, the placement guide in all of the above forms provides the distinct advantage that articles attached with adhesive means are adhered directly to the underlying fabric, rather than on top of the embroidered design as currently practiced in the prior art.

[0010] In the case where said grid pattern is produced, the spacing between lines of the grid can be tailored to accommodate the size, shape, desired spacing, and attachment method for the desired embellishments. Said embellishments can include beads, crystals, rhinestones, pearls, or other embellishments that can be attached through means of

sewing, adhesives, or other attachment means. The placement guide in said first form, said second form, and said third form provide the artisan or the amateur craftsperson with a consistent method for placing embellishments in the design with greater accuracy and repeatability than otherwise achieved, but also allows for independent selection of colors, and types of embellishments that the individual may wish to choose, allowing for consistent quality in designs that are tailored to individual tastes.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] **FIG. 1:** View of embroidered flower petal design, including machine generated grid design. The grid design is digitized in the embroidery machine file, and facilitates the application of hand-applied ornamental embellishments such as beads, crystals, rhinestones, pearls, and the like.

[0012] **FIG. 2a:** View of grid pattern alone, composed of straight parallel lines in one direction, and orthogonal straight parallel lines.

[0013] **FIG. 2b:** View of embroidered flower petal design without the grid pattern design.

[0014] **FIG. 3:** View of embroidered flower petal design, with hand-attached colored beads, attached with needle and thread, using the machine generated grid pattern to guide the uniform placement of beads.

[0015] **FIG. 4:** Example of a machine embroidered butterfly design, with 'X's included in design to identify the placement location for ornamental embellishments.

[0016] **FIG. 5a:** Example of machine embroidered candy cane design, with openings in the embroidered design to identify the placement location for ornamental embellishments.

[0017] **FIG. 5b:** Example of machine embroidered candy cane design, with beads or crystals attached to fabric. Opening in embroidered pattern allows ornamental embellishments attached with adhesives to adhere to underlying fabric, rather than on top of machine embroidered design.

DETAILED DESCRIPTION OF THE INVENTION

[0018] The method of the invention for making hand accessorizable embroidered designs employs a background cloth or fabric **18**, as depicted in **FIG. 1**, on which the embroidered design is created. The design, which is generally created using an embroidery machine, incorporates a machine embroidered ornamental design portion **20** and a guide for the addition of ornamental embellishments **22**, **28**, **30** as shown in **FIGS. 1**, **4**, and **5**.

[0019] In one embodiment of the invention, the guide for the addition of ornamental embellishments is created as shown in **FIG. 2a** by creating a machine generated grid portion **23** comprised of straight parallel lines in one direction **24** and orthogonal straight parallel lines **26**, and is incorporated within or adjacent to a machine embroidered ornamental design portion **20** as shown in **FIG. 2b**. The grid pattern formed by the lines provides a placement guide that can be used by anyone to facilitate the placement of beads, crystals, pearls, rhinestones, and other embellishments. The grid pattern may be placed within the machine embroidered ornamental design portion **20**, or adjacent to it, as required

for the purposes of the design and the artisan. The separation distance between adjacent parallel lines is adjusted as required to provide sufficient room for placement of the desired embellishments. The embellishments can include, but are not limited to, beads of desired colors and sizes to accentuate the design, that are attached to the background fabric or cloth **18** by hand using a needle and thread. Using the grid pattern as a guide, the artisan can apply the beads or other embellishments in a more uniform spacing and orientation, assuring the completion of a better quality design than would be possible without. **FIG. 3** illustrates a machine embroidered ornamental design portion **20** and a machine generated grid portion as shown in **FIG. 2a** **23** wherein beads **27** have been attached by hand using a needle and thread. Embellishments other than beads may be used, and attachment methods other than the use of needle and thread can be employed. Another method for attaching embellishments is with the use of adhesive or glue. Crystals, rhinestones, and other embellishments may be attached directly to the base fabric or cloth **18** using adhesives or glues. It is preferred, and it is an advantage of this method, that the embellishments are attached directly to the base fabric or cloth, in contrast to a common practice of adhesively attaching said embellishments on top of a machine embroidered design portion.

[0020] In another embodiment of the invention, the guide for the addition of ornamental embellishments is created by placing a stitched 'X'**28**, as shown in **FIG. 4**, at the appropriate location for the placement of an embellishment within or adjacent to the machine embroidered design portion **20**. This method allows for a style of design that incorporates few, widely separated embellishments within or adjacent to the embroidered design portion.

[0021] In yet another embodiment of the invention, illustrated in **FIG. 5a**, the guide for the addition of ornamental embellishments is provided by an opening **30** incorporated within the machine embroidered design portion **20**. The opening provides for guiding the placement of ornamental embellishments. It is preferred, and it is an advantage of this method, that the embellishments are attached directly to the base fabric or cloth, in contrast to a common practice of adhesively attaching said embellishments on top of a machine embroidered design portion. **FIG. 5b** illustrates the completed design of **FIG. 5a**, after hand applied embellishments have been added.

What is claimed is:

1. A method of making a hand accessorizable design comprising:
 - a. providing a machine embroidered ornamental design portion;
 - b. providing a guide for the addition of ornamental embellishments.
2. The method of claim 1 where said guide is a machine generated grid portion.
3. The method of claim 2 where said machine generated grid portion comprises straight parallel lines in one direction, and orthogonal straight parallel lines.
4. The method of claim 3 where said straight parallel lines in one direction are evenly spaced from one another.
5. The method of claim 3 where said orthogonal straight parallel lines are evenly spaced from one another.

6. The method of claim 3 where said machine generated grid portion is provided for the purpose of applying said ornamental embellishments of the end users choice, using an attachment means of the end users choice.

7. The method of claim 6 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached by hand using a needle and thread.

8. The method of claim 6 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached using an adhesive material.

9. The method of claim 8 where said adhesive material requires heating.

10. The method of claim 1 where said guide is a machine embroidered feature.

11. The method of claim 10 where said machine embroidered feature is a stitched X.

12. The method of claim 11 where said stitched X is provided for the purpose of applying said ornamental embellishments of the end users choice, using an attachment means of the end users choice.

13. The method of claim 12 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached by hand using a needle and thread.

14. The method of claim 12 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached using an adhesive material.

15. The method of claim 14 where said adhesive material requires heating.

16. The method of claim 1 where said feature is an opening within said machine embroidered ornamental design portion.

17. The method of claim 16 where said opening within said machine embroidered ornamental design portion is provided for the purpose of applying said ornamental embellishments of the end users choice, using an attachment means of the end users choice.

18. The method of claim 17 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached by hand using a needle and thread.

19. The method of claim 17 where said ornamental embellishments including beads, crystals, pearls, rhinestones and the like are attached using an adhesive material.

20. The method of claim 19 where said adhesive material requires heating.

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