United States Patent

Tabor et al.

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[54] FRAME FOR STRETCHING AND MOUNTING A NEEDLECRAFT PROJECT

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[52] **U.S. Cl.** **38/102.91**

[51] **Int. Cl.** **D06c 3/08**

[58] **Field of Search** 38/102, 102.1, 102.2, 102.91; 26/54; 28/15; 29/91.5; 52/222; 69/19, 1

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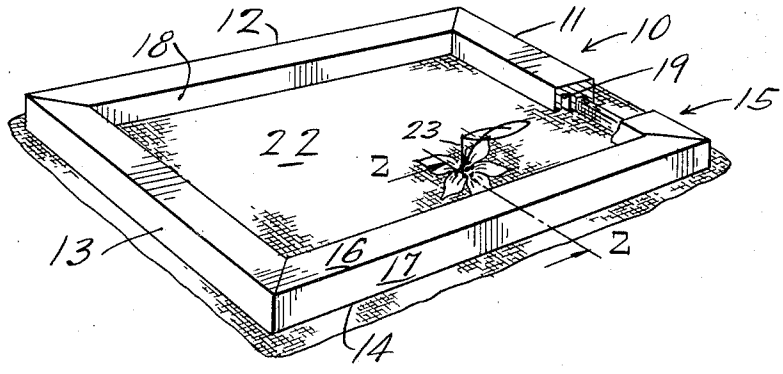
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[57] **ABSTRACT**

A frame usable first for stretching a fabric during the preparation of a needlecraft project and then for mounting the finished project. The frame has a main border member which defines an opening across which the fabric is stretched. The border member has two grooves in its back side which extend around the opening. A retainer strip of proper cross section is adapted to be forced into either of the grooves with a web of the fabric; first into the outer groove during preparation and then into the inner groove for mounting and display of the finished project.

5 Claims, 7 Drawing Figures



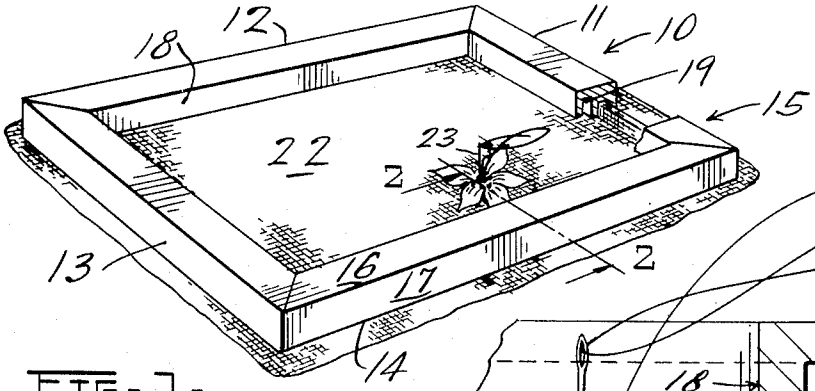


FIG-1-

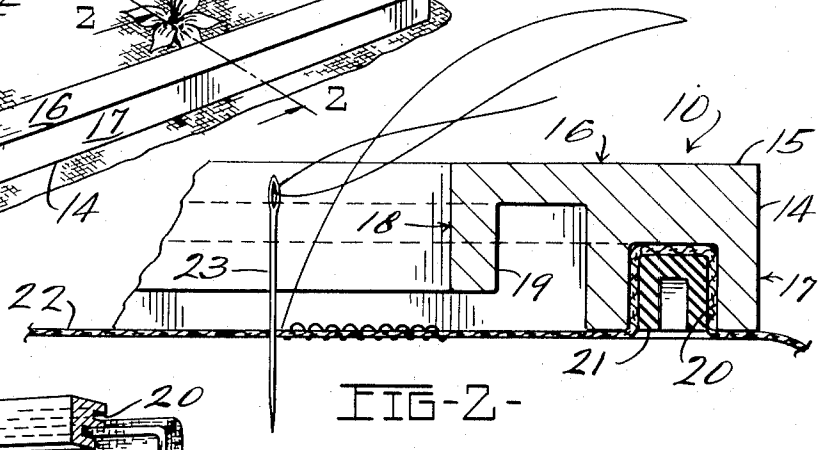


FIG-2-

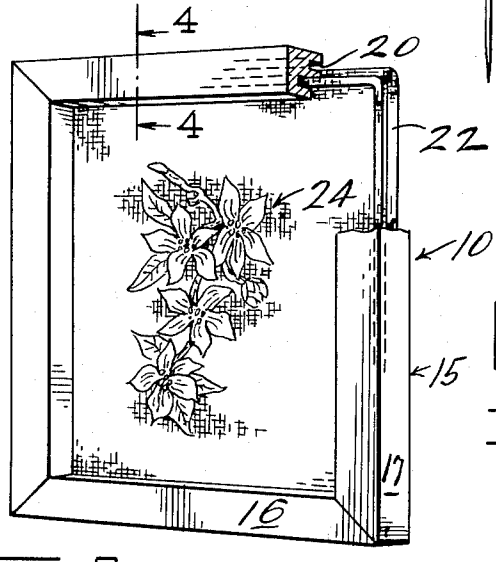


FIG-3-

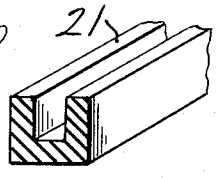


FIG-5-

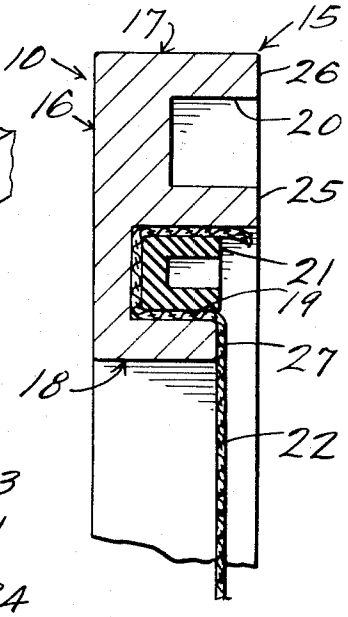


FIG-4-

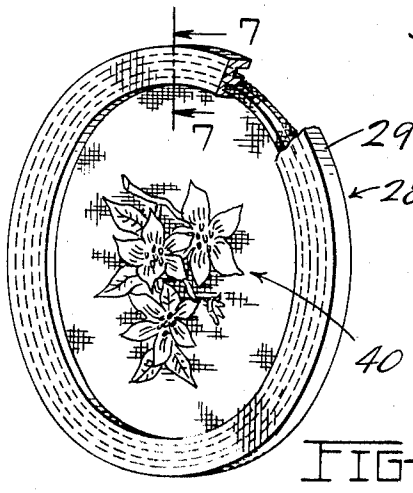


FIG-6-

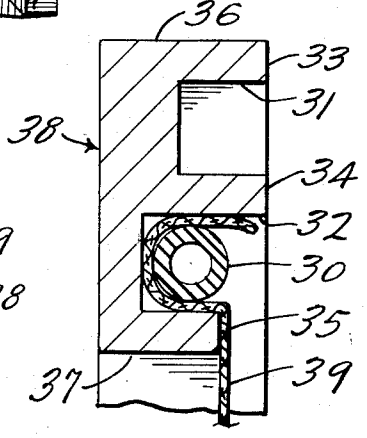


FIG-7-

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FRAME FOR STRETCHING AND MOUNTING A NEEDLECRAFT PROJECT

BACKGROUND OF THE INVENTION

During the preparation of a needlecraft project such as a "sampler," embroidery, needlepoint, or the like, it is necessary for the artisan to stretch the fabric by mounting it in some type of a frame such as old-fashioned embroidery hoop, so as to provide a firm web of material into and out of which the needle carrying the thread or yarn can be thrust and removed.

Many hobbyists prefer to purchase hobby craft kits for the preparation of needlecraft projects. Such kits contain not only a length of fabric upon which a design has been preprinted, but appropriate quantities of threads or yarns with which the design is to be made, needles or crochet hooks or whatever tools are necessary for preparing the design and, often, as old-fashioned double embroidery hoop across which the fabric is to be stretched during its completion. Some kits also contain a frame in which the finished project can be mounted for display.

When a conventional embroidery hoop is used for the preparation of a needlecraft project, particularly where the project itself covers an area on the fabric which is greater in area than the embroidery hoop, it is necessary to move the fabric over in the embroidery hoop as each portion thereof is completed which requires that a completed portion be pinched between the two elements of the embroidery hoop during the preparation of a subsequent part of the project. This is not only undesirable inasmuch as it may damage the completed portion of the project but often is difficult to assemble the embroidery hoops with the fabric when they must grip a portion of the already completed pattern. In addition, of course, the embroidery hoop is an added item of expense and cost of the kit.

It is therefore a principal object of the instant invention to provide a frame specifically designed for use in a hobby craft kit relating to one of the many fields of needlecraft work, which frame is of such size as to accept and retain the length of the fabric upon which the design is to be worked both during the preparation of the project i.e., its actual fabrication, and after the project has been completed.

It is another object of the instant invention to provide a frame for needlecraft projects which enables a length of cloth upon which the work is being done to be mounted in the frame in two separate manners: first, during preparation when it is stretched tautly across the frame and the frame is used in the same fashion as an "embroidery hoop" and, second, after the project is finished, to mount the finished needlecraft project in the frame, with the excess material trimmed away and with the frame so designed as to hide any rough edges or selvage of the fabric and to enclose the completed project much in the fashion of a standard picture frame.

Other and more specific objects and advantages of a frame embodying the instant invention will be better understood from the specification and from the drawings.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a view in perspective, with parts broken away, of a frame embodying the invention illustrated in its use during the preparation of a needlecraft project;

FIG. 2 is a fragmentary, greatly enlarged, vertical sectional view taken along the line 2—2 of FIG. 1 and illustrating how a frame embodying the invention retains a length of fabric upon which a needlecraft project is being completed during the preparation of the project;

FIG. 3 is a fragmentary, isometric view showing a frame embodying the invention as it mounts a finished needlecraft project, parts being broken away and being shown on substantially the same scale as FIG. 1;

FIG. 4 is a fragmentary, vertical sectional view taken along the line 4—4 of FIG. 3 and shown on an enlarged scale;

FIG. 5 is a fragmentary view in perspective of a portion of a retainer utilized with the embodiment of the invention illustrated in FIGS. 1–4;

FIG. 6 is a fragmentary view somewhat similar to FIG. 3 but illustrating a frame embodying the invention as designed in oval shape with parts broken away; and

FIG. 7 is a fragmentary, vertical sectional view taken along the line 7—7 of the FIG. 6 and showing a frame embodying the invention comprising a retainer of a different configuration that is suitable for use with an oval frame such as that illustrated in FIG. 6, and shown on an enlarged scale,

DESCRIPTION OF A PREFERRED EMBODIMENT

A frame generally indicated by the reference number **10** which embodies the invention is illustrated in FIG. 1 as constructed for the preparation of a rectangular needlecraft project. In this embodiment of the invention the frame **10** comprises four straight side elements **11**, **12**, **13**, and **14** which are either unitary in construction or are assembled by conventional frame assembly means (not shown) to provide a border member generally indicated by the reference number **15**.

As can best be seen in FIG. **2** the border member **15** has a cross section such as to define a front face **16**, an outer side wall **17**, an inner side wall **18**, and a pair of grooves **19** and **20**. The two grooves **19** and **20** open to the rear of the border member **15** and have substantially identical cross sections.

The frame **10** also comprises a retainer **21** (see FIG. **5**) which is of such cross sectional dimension as to be adapted to be pressed with a web of fabric **22** or other material upon which the needlecraft project is to be prepared, into either of the two grooves **19** or **20**. In the embodiment of the invention illustrated in FIGS. **1–5**, the retainer **21** is illustrated as being an extruded length of somewhat flexible plastic material having a substantially U-shaped cross section.

When the hobbyist commences the project, the border member **15** is inverted on a flat surface and the length of fabric **22** is placed upon the rear face of the border member **15** with the preprinted pattern centered in the opening defined by the border member **15**. The hobbyist then takes suitable lengths of the retainer **21** and forces a length of the retainer **21** and a portion of the web of the fabric **22** into one of the outer grooves **20** along one side of the border member **15** for example, that side defined by the element **14** as illustrated in FIG. **2**. The hobbyist then stretches the fabric **22** across the border member **15** and similarly forces a length of the retainer **21** into the outer groove **20** on the opposite side of the border member **15**. Sequentially the hobbyist stretches the material between the elements **11** and **13** so that it is stretched tightly in both directions across the border member **15** and retained therein by the compression of the retainers **21**. The hobbyist then proceeds to prepare the needlecraft project using appropriate equipment such as a needle **23** illustrated in FIGS. **1** and **2**, keeping the fabric stretched taut in the frame **10** during this work.

After completion of the needlecraft project, as illustrated in FIG. **3**, the hobbyist removes the retainers **21** from the outer grooves **20** and once again lays the border member **15** on its face on a flat surface. The hobbyist then carefully centers the fabric **22** bearing its finished needlecraft project, as indicated by the reference number **24** in FIG. **3**, in the opening defined by the border member **15**. The hobbyist then takes the lengths of the retainer **21** and shortens them slightly so that they reach throughout the lengths of the inner grooves **19** and carefully forces the retainers **21** into the inner grooves **19** with the portions of the fabric **22** which overlie those grooves in order to securely retain the fabric **22** in the border member **15** in tightly stretched condition as illustrated in FIG. **4**. The hobbyist may then trim off any rough marginal or selvage edge of the fabric **22** by cutting along the inner edge of a rib **25** which defines the outer side of the groove **19** and the inner side of the groove **20**.

As can best be seen by reference to FIGS. **2** and **4**, the groove **20** is defined by the intermediate rib **25** and an outer rib **26** which also defines the outer side wall **17**. The inner groove **19** is defined by the intermediate rib **25** and an innermost rib **27** the side of which also defines the inner side wall

18. It will also be observed that the two ribs 25 and 26 extend rearwardly from the front face 16 a distance greater than the innermost rib 27. Thus, the outer side wall 17 and the rib 26 function as a perimeter border enclosing the entire frame 10 and the edges of the needlecraft project fabric 22 after the project has been finished and in order to provide a neat, clean appearance when the project is put on display.

A modified embodiment of the invention is illustrated in FIGS. 6 and 7 wherein a frame generally indicated by the reference number 28 comprises an oval border member 29 and a retainer 30, in this case shown as a length of flexible plastic tubing. As in the case of the embodiment of the invention illustrated in FIGS. 1–5, the border member 29 has two concentric rearwardly opening grooves 31 and 32 defined, respectively, by an outermost rib 33 and an intermediate rib 34 and by the intermediate rib 34 and innermost rib 35. The ribs 33, 34, and 35 also define an outer side wall 36 and inner-side wall 37. The border member 29 has a front face 38. In this instance, the retainer 30 is a length of circular plastic material such as a tube so as to be easily bent around the oval shape of the border member 29 both when it is pressed into the outer groove 31 during the preparation of the needlecraft project and when it is pressed into the inner groove 32 after the project has been completed thus to retain therein a piece of fabric 39 upon which the needlecraft project, generally indicated by the reference number 40, has been finished.

What we claim is:

1. A frame for stretching fabric for the preparation of a needlecraft project and for mounting the finished project, said frame consisting of a border member defining an opening across which a fabric is stretched during preparation of a needlecraft project thereon, and in which the finished project is to be mounted for display, said border member having a cross section defining a front face, an outer side wall, an inner side wall, and a pair of side-by-side grooves in the back face thereof which open to the rear of said border member, and a retainer adapted to be pressed with a web of such fabric into the outer one of said grooves for retaining the edge of such fabric in place across said frame during preparation of such project and adapted to be pressed into the inner one of said grooves with a web of such fabric for mounting the completed project for display in said frame.

2. A frame according to claim 1 in which the grooves are defined by three spaced ribs on the rear of said border member and extending therealong.

3. A frame according to claim 2 in which the outer two of the ribs extend rearwardly from the front face of said border member a distance greater than the third, inner one of said ribs.

4. A frame according to claim 2 in which the outer side of the outermost one of the ribs defines the outer side wall of said border member and the inner side of the innermost one of said ribs defines the inner wall of said border member.

5. A frame according to claim 4 in which the outermost one of the ribs has a depth relative to the front face of said border member at least equal to the depth of the intermediate one of the ribs and greater than the innermost one of the ribs whereby the outermost one of said ribs provides an enclosing border for said frame.

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