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INT CL⁶ A47G 1/06 , B44C 5/00 5/02
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(54) Ornamental profile

(57) An ornamental profile 10 for a simulated mat structure for framing art subjects comprises a generally planar, elongated element of predetermined thickness, width and length, said element having a base color, upper and lower planar surfaces, outer and inner side edge surfaces coextensive therewith and first and second ends, wherein said upper planar surface 16 includes at least a first decorative layer 18 covering a continuous portion of the surface thereof and further wherein at least one of said side edge surfaces 14 adjacent said decorative layer is beveled. A plurality of profiles may be assembled together, using an adhesive layer 20.

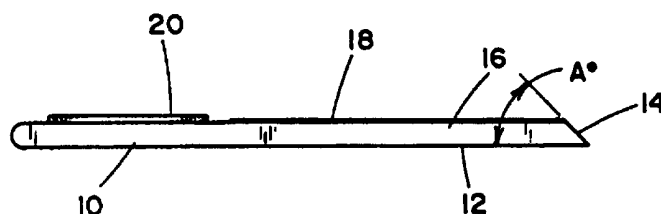


FIG. 2

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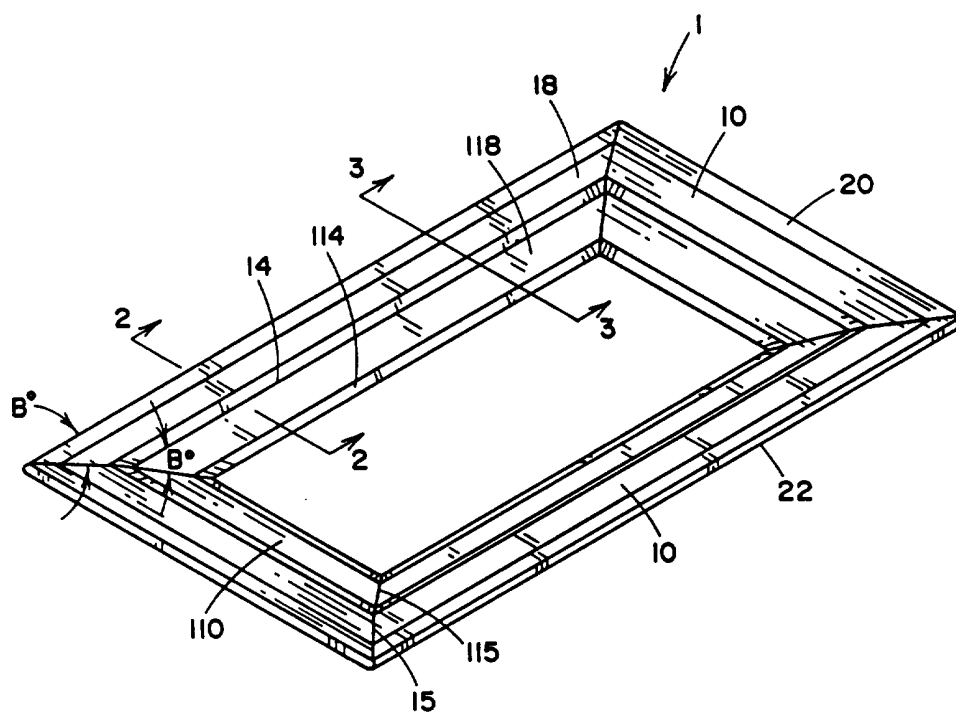


FIG. 1

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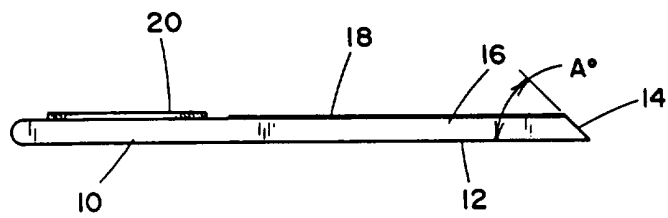


FIG. 2

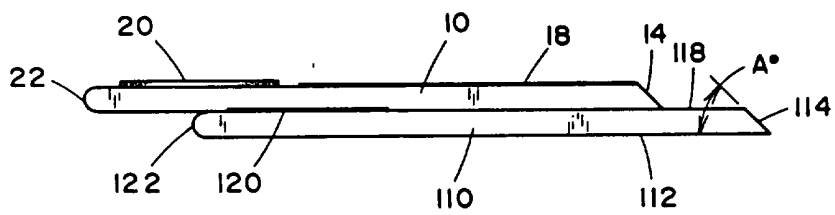


FIG. 3

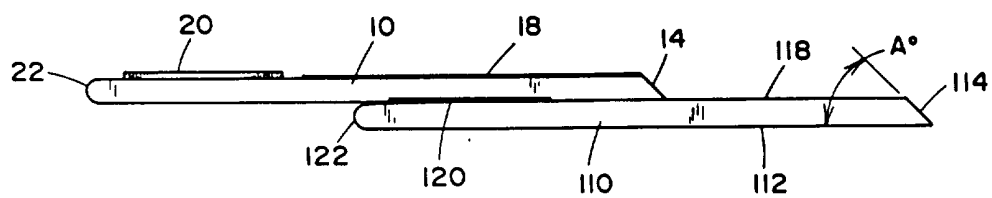


FIG. 4

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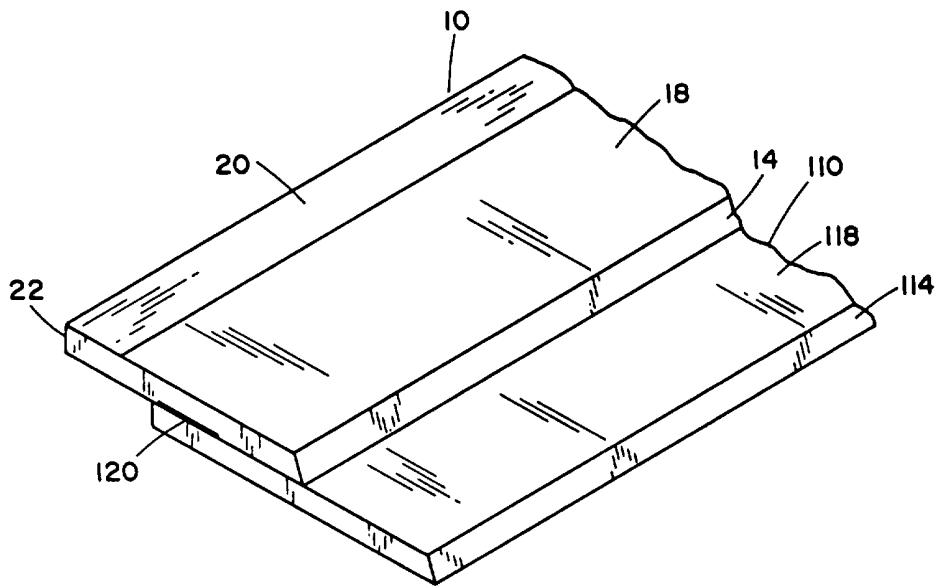


FIG.5

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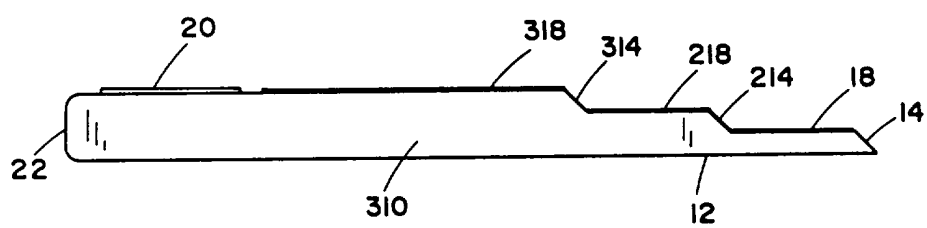


FIG. 7

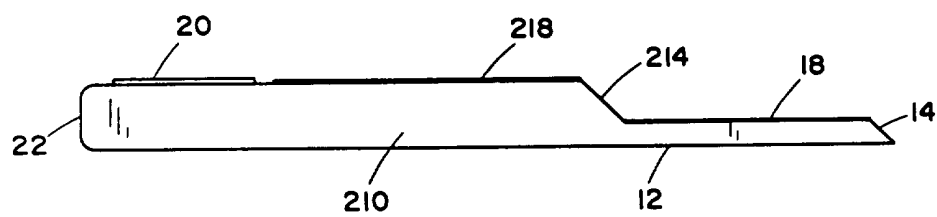


FIG. 6

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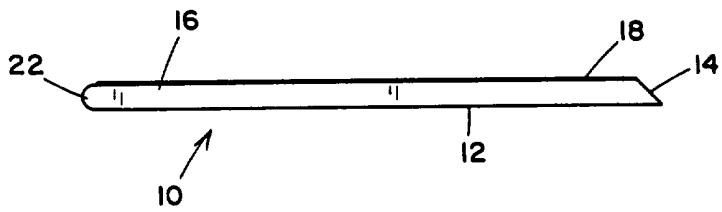


FIG. 8

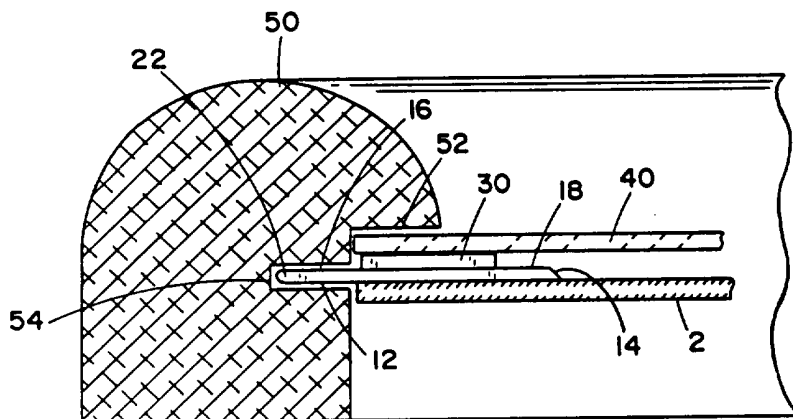


FIG. 9

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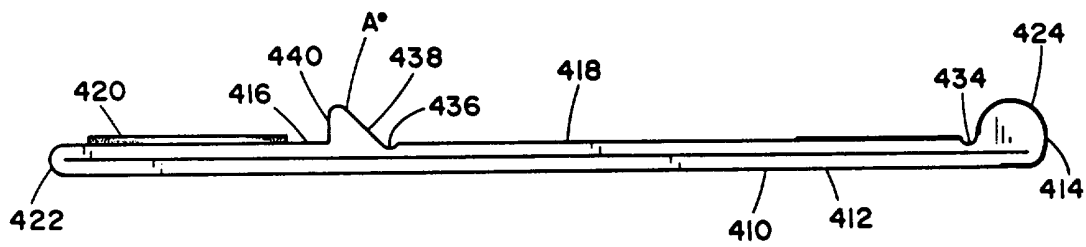


FIG. 10

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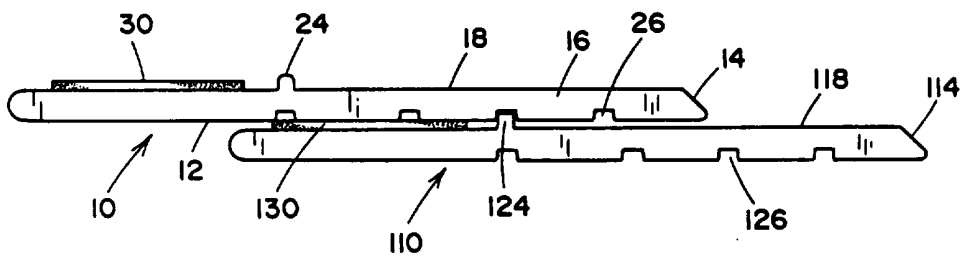


FIG. II

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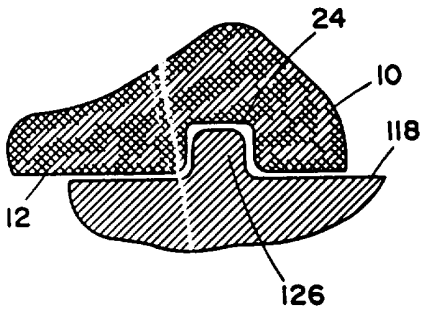


FIG. 12

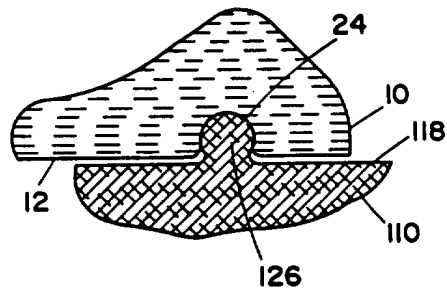


FIG. 13

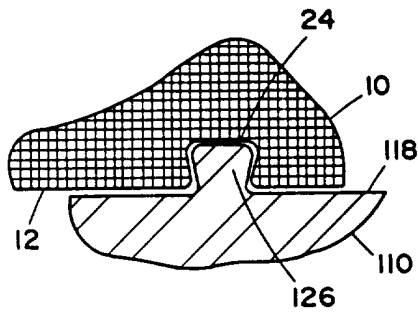


FIG. 14

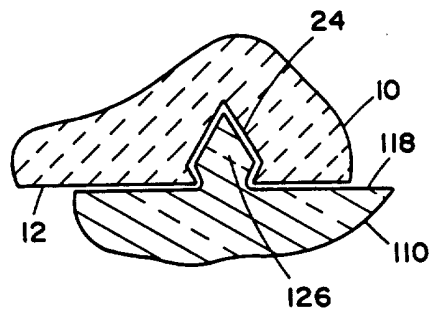


FIG. 15

SIMULATED MAT BOARD LINER

FIELD OF THE INVENTION

This invention relates to a mat profile for pictures, prints and the like for use around a subject art work and, more specifically, to decorative mats formed from mat profiles which simulate the appearance of conventional mats and of mats having multiple layers.

BACKGROUND OF THE INVENTION

The use of die-cut mat boards is well known. Such boards are frequently used to create added dimension and color contrast between the frame and the immediate border of the subject being framed. Typically, a mat is knife or die-cut using specialized equipment to create a border which will surround the framed subject. The border will usually have an edge surface which is angled or beveled such that border will be sloped towards the subject artwork. A generally central portion of the mat is removed and often thrown away or stored for possible future use. The process for mat cutting is often time consuming

as it requires somewhat precise measuring and cutting and can create substantial waste particularly where multiple layer mats are utilized. Examples of these types of mats are well known and are set forth in U.S. Patent Nos. 5,279,880 and 5,074,067 to Cohart.

The prior art also contains numerous other examples of both frame and mat construction for use with prints and pictures and the like, all of which have certain limitations and shortcomings. For example, U.S. Patent No. 248,527 to Tabor, et al. is directed to a method for pre-forming and applying ornamented plaster material to "passe partout" mats. According to that patent, strips of material are ornamented with molds and dyes. The ornamented border surrounds a mounted picture or print. U.S. Patent No. 842,272 to Thomas also relates to a mat construction which is designed to give a frame effect to pictures with "passe partout" bindings or provide a deep frame effect when a picture is mounted within a shallow frame. U.S. Patent No. 1,092,499 to Matsuo relates to a picture mat comprising a strip of cardboard, veneer or the like. At one edge of the strip, a band of cushioning material is provided which is coextensive in length with the strip. The mat materials are provided in long strips which can be trimmed to the desired length to produce side and end pieces which can be mitered and secured together to form a mat. Similarly, U.K. Patent GB 2,235,873 discloses a border

decoration for picture mounts comprising one or more decorative paper strips which have an adhesive coating on one face for releasable adhering to a backing sheet or strip. The adhesive coating is of the type which will enable the strip to be detachably secured and repositioned prior to final securement. Once the strip has been aligned around the framed subject matter, a gold leaf strip which is provided may be burnished which further secures the subject to the adhesive. U.S. Patent No. 5,286,558 to Seo et al. discloses an archival mat frame formed from a foamed synthetic resin substrate which is covered by a non-acid, neutral paper. The neutral paper covers the entire surface of the foamed synthetic resin substrate including its rear surface. Since only the neutral paper rear surface comes into contact with the subject art work the work is mounted in an archival fashion. Finally, U.S. Patent No. 3,178,884 to Christian relates to a picture mounting method which provides an illusion of depth by the use of two or more mats having oval or circular openings. The remote mat is slightly smaller than the proximate mat opening with the mats being mounted eccentrically to each other. While these references provide some improvements in the framing art, they all have disadvantages which are readily apparent.

From the foregoing, it will be appreciated none of the known prior art references can provide a decorative mat which may be easily and inexpensively fabricated in a variety of colors,

patterns, and/or textures. Moreover, none of the known prior art references can provide a simulated mat which truly has the appearance of a multiple layered mat. Finally, none of the known prior art references can provide a simulated mat structure having a variety of decorative layers which simulate a variety of textures and appearances. It is therefore an object of this invention to provide these advantages and overcome the shortcomings and limitations of the prior art.

SUMMARY OF THE INVENTION

The present invention comprises a mat profile and a mat like assembly constructed therefrom. The profile comprises an extrusion having a generally thin rectangular shape and includes upper and lower planar surfaces of different slightly widths. The upper and lower surfaces of the profile are connected on one side at complimentary peripheral edges by at least one angled or beveled edge surface. The preferred embodiments, upper planar surface of the profile may carry a decorative layer. The profile can be miter-cut and assembled to form a simulated mat for surrounding a framed art subject.

BRIEF DESCRIPTION OF THE DRAWINGS

The features of the present invention, which are believed to be novel, are set forth with particularity in the

appended claims. The invention together with further objects and advantages thereof may be best understood by reference to the following description taken in conjunction with the accompanying drawing in the several figures of which like reference numerals identify like elements, in which:

Fig. 1 is a perspective view of a simulated double mat according to the present invention;

Fig. 2 is a cross-sectional view taken along the line 2-2 in Fig. 1;

Fig. 3 is a cross-sectional view taken along the line 3-3 in Fig. 1.

Fig. 4 is a cross-sectional view of an alternative embodiment of the invention similar to that shown in Fig. 1;

Fig. 5 is a detailed partial perspective view of a section of the mat profile shown in Fig. 1;

Fig. 6 is an alternate embodiment of a mat profile of the present invention;

Fig. 7 is yet another alternate embodiment of a mat profile according to the present invention;

Fig. 8 is an alternative embodiment of the mat profile shown in Fig. 2;

Fig. 9 is a partial cross-section showing a typical assembly of a frame, utilizing the mat profile shown in Fig. 8;

Fig. 10 is yet another alternative embodiment of the mat profile of the present invention;

Fig. 11 is an alternate embodiment of the mat profiles shown in Figs. 1 through 5;

Fig. 12 is a cross-sectional detailed view of the securing means shown in Fig. 11;

Fig. 13 is an alternative embodiment of the securing means shown in Fig. 12;

Fig. 14 is another alternative embodiment of the securing means shown in Fig. 12; and

Fig. 15 is yet another embodiment of the securing means shown in Fig. 12.

DETAILED DESCRIPTION OF THE INVENTION

The present invention is a mat profile and simulated mat board liner structure which comprises a plurality of mat profiles, which are cut, mitered and assembled to form a opening around a subject art work. As used herein, profile refers to a structural element used in fabricating a simulated mat. Typically there will be at least four profiles used in each simulated mat structure. The profiles are preferably plastic with at least one decorative layer visible to an observer. Each profile has at least one angled edge surface preferably also visible to an observer. When assembled, the angled surface serves to simulate the beveled appearance of conventional mats used as borders for framed pictures, prints and the like.

In one preferred embodiment, the visible surfaces of the profile may be colored or tinted to a desired shade and may be also decorated with a decorative layer which may be achieved by any number of known means including lamination, hot stamp films, printed or screened effects, foils and with matte or gloss color finishes used with plastic substrates and colorants. The decorative layer extends the length of the profile and on its edge to the upper peripheral edge of the beveled edge surface. In these embodiments the appearance of the beveled edge surface will be different from that of the decorative layer. The upper planar surface of the profile may also include adhesive material for securing the profile to a second surface such as another profile, or picture frame and even a conventional mat board. Preferably, the adhesive is placed at or near the edge portion of the profile opposite the beveled edge. The peripheral edge surface of the profile can also be supplied with a temporary positioning transfer tape for fixing the framed subject to it. In one preferred embodiment, the beveled edge surface will have the color, tint or shade of the material from which it is constructed. In other alternate embodiments the beveled edge may also be decorated with a color, film, foil or other decorative means to provide a decorative surface different from the upper planar surface decoration.

In other preferred embodiments, the rear planar surface of each profile is designed with one or more "snap-in" elements

such as grooves or channels. These grooves or channels are adapted to mateably receive raised ribs or other similar complementary shaped surfaces which extend upwardly from the upper planar surface of a lower profile for securing one profile to another so as to create the appearance of a double mat when cut and assembled. This feature also enables the profiles to be positioned and secured laterally either inwardly or outwardly in a manner so as to increase or decrease the appearance of the simulated mat border width. In these embodiments, the width of the visible decorative surfaces can be altered so that one or more borders is of a width different from the others, either in the same plane or in different planes. In other preferred embodiments it may also be desirable for the profiles to have decorative surfaces of different colors, patterns and/or textures. The simulated appearance of triple and other multiple layers mats are also possible by the addition of more profiles. Finally, the profiles of the present invention may be fabricated so as to include multiple beveled surfaces either alone or in combination with other decorative elements such as rounded edges, squared edges and the like, all within a single profile, with each decorative upper planar surface having the same or different color, pattern and/or texture. In the embodiments disclosed herein, the designated "beveled edge" surface may, in fact, be raised or carry other types of edge effects such as concave or convexed surfaces, or it may be ridged, rounded and grooved. Thus, as used herein beveled edge is intended to encompass the

literal meaning of those terms as well as other edge effects. In addition to a strictly "beveled edge" appearance these profiles when assembled around a subject art work produce the appearance of a mat board liner having aesthetic attributes heretofore unavailable.

DETAILED DESCRIPTION OF THE DRAWINGS

In Fig. 1 simulated mat 1 is made up of a plurality of outer and inner mat profiles 10 and 110 respectively, each having pre-determined lengths. In the embodiment shown, mat profiles 10 and 110 are connected to each other at their inclined ends 15 and 115 respectively, to form a pre-determined simulated mat shape, for example, an outer rectangle 11 and an inner rectangle 111.

As shown in Figs. 1 through 5 the inner and outer profiles are substantially thinner than they are wide having a thickness of preferably roughly 0.05 inches and a width from .5 to 3 inches or greater. It will be appreciated that the profile width need only be of sufficient size to provide the simulated mat appearance when in use. Similarly, the "thickness" or "thinness" of the profile need only be sufficient to provide an appearance of perceptible depth when viewing the beveled edge surface. Each of the profiles is made of plastic materials and are preferably extruded or molded plastic. One suitable plastic

for example is an extruded ABS plastic, although, it will be appreciated that other plastics such as styrenes, polyesters, nylons and plastic-resin materials may be used. Preferably, the materials from which the profiles may be fabricated are relatively easily molded or extruded and are lightweight, semi-rigid, durable, and easily cut or formed into a desired shape to create a simulated mat appearance.

Referring more specifically to Figs. 2 through 5, profiles 10 and 110, include lower planar surface 12, beveled edge surface 14 and upper surface 16 onto which decorative layer 18 may be applied. Also situated on upper surface 16 is adhesive layer 20 which is preferably located adjacent decorative layer 18. Adhesive layer 20 may be any number of glues, double sided adhesive carrier tape, foam-cell tapes or other similar type of adhesive materials which may be applied in strip form along the decorative layer. Additionally, the adhesive layer may also function as a spacer between adjacent profiles. Positioned opposite beveled edge surface 14 is outer edge surface 22. Outer edge surface 22 is designated as the outer edge relative to its intended orientation in an assembled simulated mat structure. Outer edge surface 22 is oriented away from the subject art work. In other alternative embodiments, decorative layer 18 may substantially cover upper surface 16 entirely with adhesive layer 20 being positioned above decorative layer 18 preferably, at or near the peripheral edge opposite the beveled edge surface. In

the preferred embodiments, the angle A of beveled edge surface 14 may be from 10° to 90° , preferably from 30° to 60° , and more preferably about 45° .

Decorative layer 18 may be achieved by laminating any number of printed vinyl films or printed polyester films or colored polyester films and may also be decorated by using any of a wide number of hot stamp films and foils for transferring print patterns and/or textures. Decorative layer 18 may also be achieved by applying adhesive backed films and/or foils to the upper planar surface or printed via screen transfer, pad print and other known printing methods. Upper planar surface 16 could also be a mat or a gloss colored finish by using a number of different plastic substrates and colorants. Lower surface 12 of profile 10, typically the back or non-exposed surface, is not generally visible in the simulated mat assembly of the general type disclosed herein.

Fig. 2 shows a cross-sectional view of a single profile whereas Fig. 3 and Fig. 4 show cross-sectional views of two profiles in a stacked arrangement. In Figs. 3 and 4, it will be appreciated that the simulated appearance of narrow or wide double mat widths may be achieved by the placement of upper profile beveled edge 14 either close to or further away from lower provide beveled edge 14. In this manner, the amount of lower profile decorative layer 118 may be altered to provide the

desired effect, as shown by Fig. 5.

In Figures 6 and 7, there are shown alternate embodiments of the mat profile of the present invention shown generally at 210 and 310 respectively. In the embodiments shown, lower planar surface 12 terminates on one peripheral edge with beveled side edge 14 and on its opposite side with outer edge 22. Positioned on the upper surface is adhesive layer 20 and decorative layer 18. In Figs. 6 and 7 extending upwardly from decorative layer 18 is second beveled edge 214 and second decorative layer 218. Referring specifically to Fig. 7, there is shown a third beveled edge 314 which is situated between the second decorative layer 218 and a third decorative layer 318. In these embodiments, a simulated mat constructed of the mat profiles disclosed in these figures will have an appearance of a multiple layer mat.

In use, the mat profile elements are cut at predetermined lengths and angles depending on the shape of the associated art work to be surrounded by the simulated mat. As shown more generally in Fig. 1, the cut ends 15 and 115 of the mat profile elements may be interconnected by any number of conventional means such as glue, hot melt adhesives or by mechanical connecting means such as clips, tape, etc. to form the desired shape of mat. In the illustrated embodiments, the inclination angle B of the frame elements are generally 45° with

respect to the direction of the length thereof; however, it can be appreciated that angle B can optionally be selected to provide for a complex shape of mat, for example, a polygon.

In Figure 8 there is shown an alternate embodiment of the mat profile shown in Figure 2. In this embodiment, the adhesive layer is eliminated in its entirety and decorative layer 18 may extend substantially the entire width of the upper planar surface 16. As shown more clearly by Figure 9, mat profile 10 may be compressively fitted into an associated frame 50 having lip 52 and slot 54 for receiving outer edge 22 of the profile. Position adjacent lower planar 12 surface is art subject 2. On its opposite planer surface is positioned mat 30 which is located below glass 40. The mat profile is held in place by lip 52 and slot 54. From the embodiment shown in Fig. 9, it will be appreciated that the arrangement of the frame elements may also be altered so as to position mat profile 10 above the outer planar surface of glass 40, with mat 30 being positioned below.

In Figure 10 there is shown yet another alternate embodiment of a mat profile of the present invention shown generally at 410. In this embodiment, inner edge 414 is shown as a rounded or "bead" type of edge. This edge is designated as inner edge relative to its intended position around an art subject with regard to the frame. It will be appreciated however that inner edge 414 may take any number of other forms including

a "beveled edge" or one which is generally triangular, squared, rectangular, or polygonal form. Covering inner edge 414 is inner decorative layer surface 424. Adjacent inner decorative surface 424 is decorative layer 418 which may be defined by a pair of decorative layer edge detents 434 and 436 respectively. Decoration surfaces 418 and 424 and other surfaces may be prepared as set forth in previously detailed embodiments. Positioned at the outer peripheral edge side of detent 436 is angled surface 438 which generally has the shape of a right triangle with a generally 45° angle facing towards the inner decorative edge. Further defining the right triangle on the side perpendicular to the lower planar surface is edge lip 440. Positioned behind edge lip 436 on the upper planar surface 416 is adhesive layer 420. It will be appreciated that in other embodiments adhesive layer 420 may be eliminated where there are other affixation means used. In this embodiment, edge lip 440 provides a bearing surface for the interior cut-out edge of a conventional mat which would lay in abutment against the edge lip. In such embodiments, the simulated decorative mat provided by the profile possesses additional aesthetic detail and appeal.

In Fig. 11 there is shown an alternative embodiment of the profile arrangement shown generally in Figs. 3-5. In this embodiment, upper planar surfaces 16 and 116 of profiles 10 and 110 respectively, are each provided with a raised rib shown

generally at 24 and 124. Lower planar surfaces 16 and 116 are provided with a plurality of channels 26 and 126 respectively which are adapted to receive therein a raised rib. Raised ribs 24 and 124 and channels 26 and 126 are coextensive in length with the profile surface and may be from .010 to .05 inches or greater in height or depth respectively. It will be appreciated that rib and channel heights and depths need only be of a dimension which is consistent porportionally to the thickness of the profile to ensure proper positioning without distorting or otherwise interfering with the appearance of the profile. Also positioned on the upper planar surfaces of profiles 10 and 110 are spacers 30 and 130 which may optionally include an adhesive layer 32 and 132. In the embodiment shown, it will be appreciated that the appearance that the depth of the mat width border may be altered by the inward or outward movement of one profile relative to the other with securement of one profile to the other by inserting the rib into any of the channels. The optional adhesive layer may provide additional securement of a one profile to another and also may optionally provide a securement means for a conventional mat. In this regard, raised rib 24 may also provide a bearing surface for the interior cut-out edge of a conventional mat which would lie in abutment against the raised rib.

Finally, in Figs. 12 through 15, there are shown partial cross sections of various arrangements of the rib and channel interlock shown generally in Fig. 11. With regard to the

embodiment shown, it will be appreciated that the significant limitation of any of the alternate forms of the interlocking rib and channel system is that the receiving channel be mateably adapted for the corresponding raised rib.

The specific embodiment herein described are only illustrative of the invention. Other embodiments using the above-described concepts are also intended to be encompassed by the invention. Various other changes in structures may additionally occur to those skilled in the art, and all of these changes are understood as forming part of the invention in so far as they fall within the spirit and scope of the following claims.

What I claim is:

1. An ornamental profile for a simulated mat structure for framing art subjects comprising: a generally planar, elongated element of predetermined thickness, width and length, said element having a base color, upper and lower planar surfaces, outer and inner side edge surfaces coextensive therewith and first and second ends, wherein said upper planar surface includes at least a first decorative layer covering a continuous portion of the surface thereof and further wherein at least one of said side edge surfaces adjacent said decorative layer is beveled.
2. The profile of claim 1 wherein said upper planar surface further includes a securing means for securing a portion of said upper surface to a second surface, wherein said securing means is adjacent said edge surface opposite the beveled edge surface.
3. The profile of claim 1 wherein said decorative layer lies adjacent said upper planar surface and does not cover said beveled edge surface.

4. The profile of claim 3 wherein said upper planar surface further comprises a second beveled edge surface adjacent on one side to said first decorative layer and on its opposite side to a second decorative layer.
5. The profile of claim 4 further comprising a third beveled edge surface adjacent on one side to said second decorative layer and on its opposite side to a third decorative layer.
6. The profile of claim 5 wherein said decorative layers are selected from the group consisting of laminations, printed films, hot stamp films and adhesive backed foils, and printing directly on the upper planar surface.
7. The profile of claim 1 wherein the angle of said beveled edge is from 10 to 90 degrees.
8. The profile of claim 1 wherein said lower planar surface includes at least one longitudinal groove therein coextensive in length therewith.
9. The profile of claim 1 wherein said upper planar

surface includes at least one longitudinal rib thereon coextensive in length therewith.

10. The profile of claim 2 wherein said securing means is an adhesive layer.

11. The profile of claim 10 wherein said adhesive layer is selected from the group consisting of double-sided adhesive transfer tape, foam-cell adhesive tape, hot-melt glue and adhesive spray.

12. A simulated mat for framing an art subject comprising:
a plurality of ornamental mat profiles, wherein said profiles comprise generally planar, elongated elements of predetermined thickness, width and length, said element having upper and lower planar surfaces, outer and inner side edge surfaces coextensive therewith and first and second ends cut at predetermined angles with respect to said length, said plurality of mat elements for connecting end to end so as to define an open area through which said art subject may be viewed; wherein said upper planar surface includes at least a first decorative layer positioned thereon and further wherein at least one of said side edge

surfaces adjacent said decorative layer is beveled.

13. The simulated mat of claim 12 wherein said upper planar surface further includes a securing means for securing a portion of said upper surface to a second surface, wherein said securing means is adjacent said edge surface opposite the beveled edge surface.
14. A plurality of simulated mats of claim 13 comprising an upper simulated mat having an opening of predetermined size and a lower simulated mat having an opening of smaller predetermined size, wherein said upper simulated mat opening is sized so as to extend uniformly over a part of the decorative layers of said lower simulated mat.
15. The simulated mat of claim 13 wherein said decorative layer lies adjacent said upper planar surface and does not cover said beveled edge surface.
16. The simulated mat of claim 13 wherein said upper planar surface of at least one of said upper and

lower simulated mats further comprises a second beveled edge surface adjacent on one side to said first decorative layer and on its opposite side to a second decorative layer.

17. The simulated mat of claim 16 further comprising a third beveled edge surface adjacent on one side to said second decorative layer and on its opposite side to a third decorative layer.
18. The simulated mat of claim 12 wherein said decorative layers are selected from the group consisting of laminations, printed films, hot stamp films, adhesive backed foils, and by printing it directly on upper planar surface.
19. The simulated mat of claim 13 wherein said lower planar surface includes at least one longitudinal groove therein coextensive in length therewith.
20. The profile of claim 1 wherein said upper planar surface includes at least one longitudinal rib thereon coextensive in length therewith.

Relevant Technical Fields

- (i) UK Cl (Ed.N) A4X, B6X (XAB)
(ii) Int Cl (Ed.6) A47G 1/06, B44C 5/00, 5/02

Search Examiner
P N DAVEY

Date of completion of Search
11 OCTOBER 1995

Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

Documents considered relevant following a search in respect of Claims :-
1-20

(ii) ONLINE: WPI

Categories of documents

- X: Document indicating lack of novelty or of inventive step. P: Document published on or after the declared priority date but before the filing date of the present application.
Y: Document indicating lack of inventive step if combined with one or more other documents of the same category. E: Patent document published on or after, but with priority date earlier than, the filing date of the present application.
A: Document indicating technological background and/or state of the art. &: Member of the same patent family; corresponding document.

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2065566 A (MANUEL PUMEDON) see eg Figure 2	1 at least
X	US 5286558 (GOSHIKAISHA) see eg Figure 2	1 at least
A	US 5279880 (COHART) see eg Claim 1	1 at least

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