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(54) **DECORATIVE PATTERN APPLICATION KIT**

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(57) **ABSTRACT**

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A decorative pattern application kit includes polymer plastic panels with an adhesive adapted to adhere the panels to a smooth surface. A smoothing tool is provided which is adapted to help free the panels of any underlying air pockets or wrinkles and ensure the adhesive adheres to the surface. Instructions are provide to guide the homeowner in the use of the kit.

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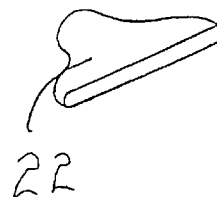
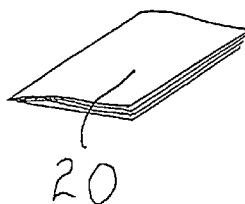
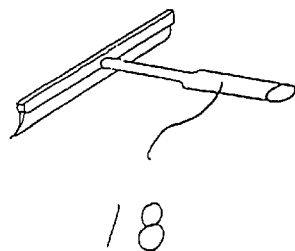
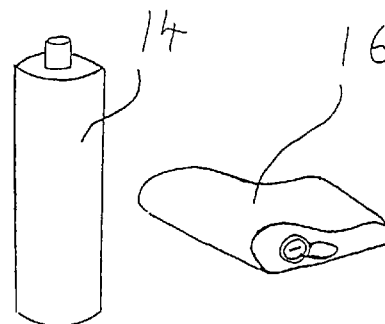
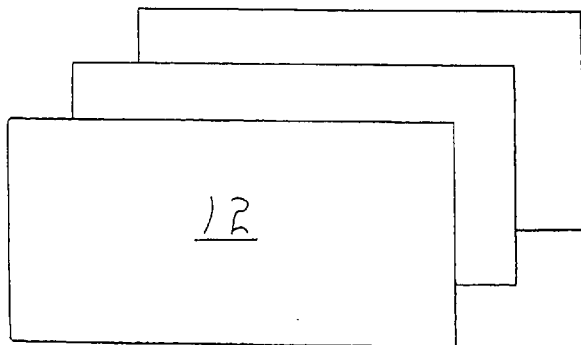
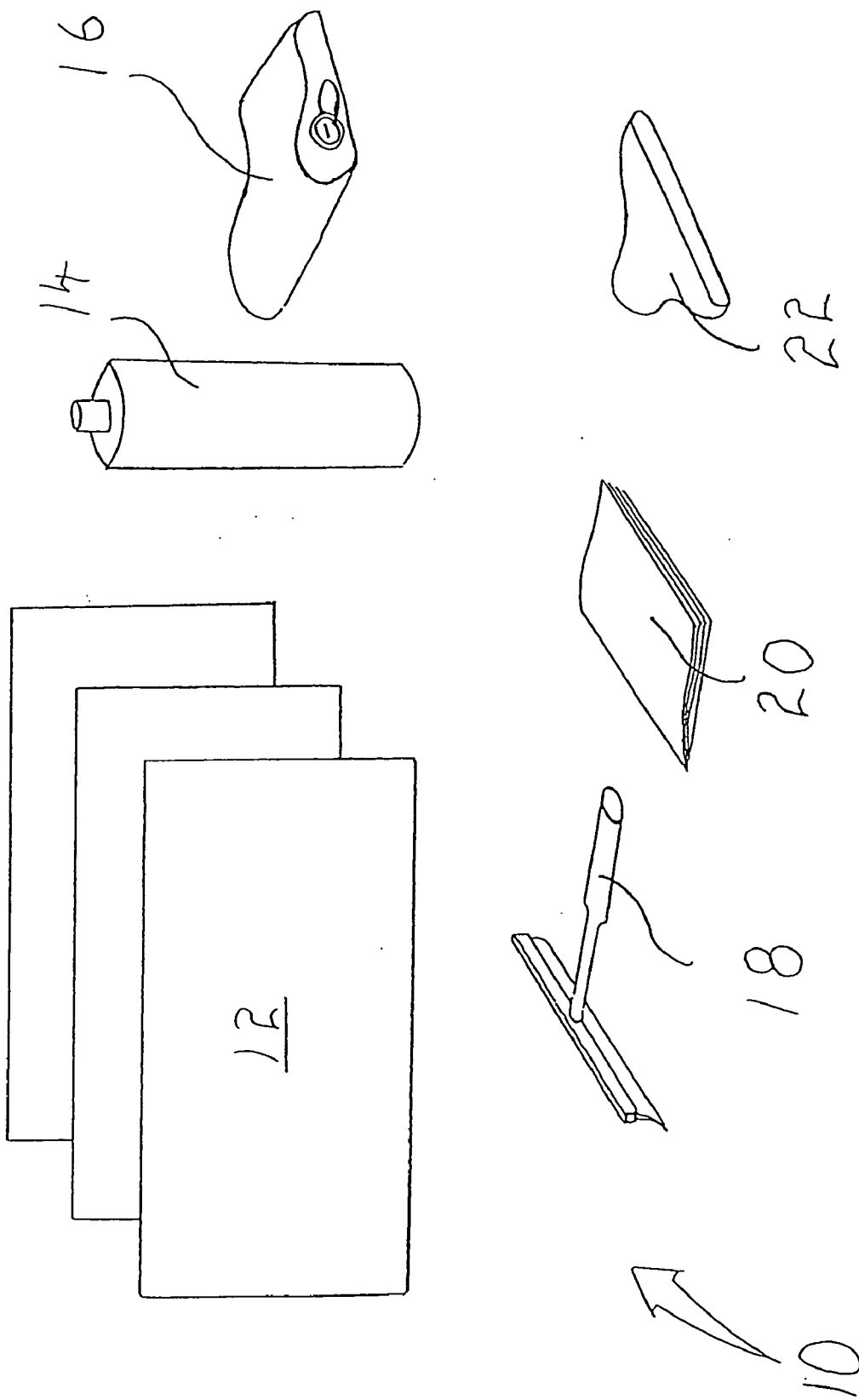


FIG. 1



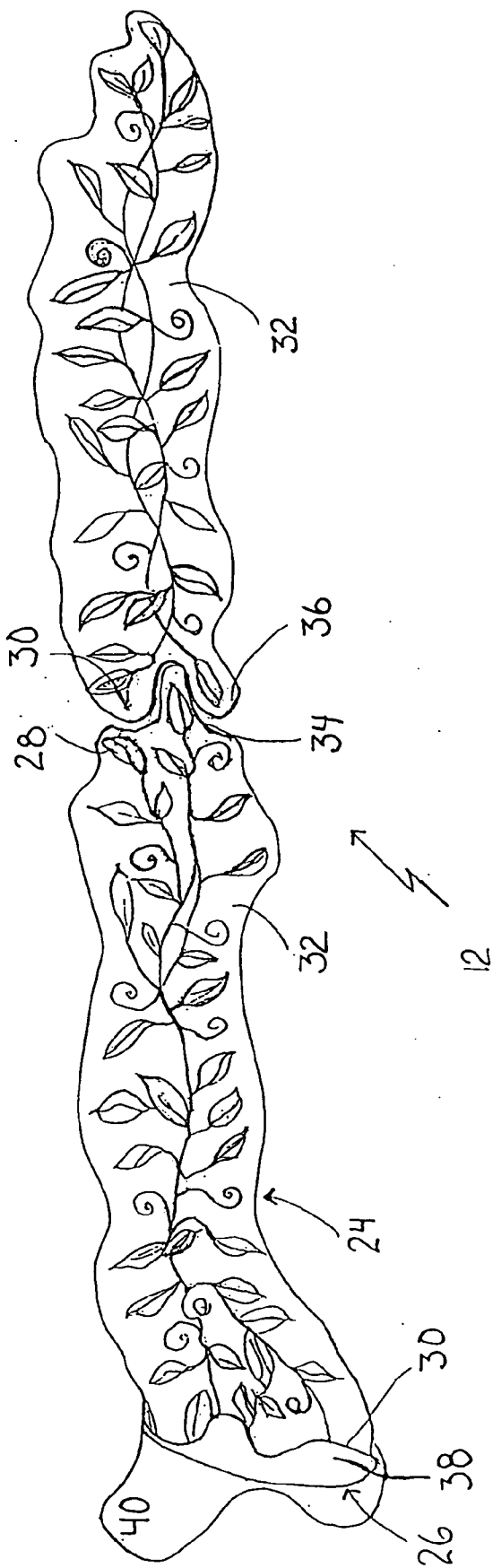


FIG. 2

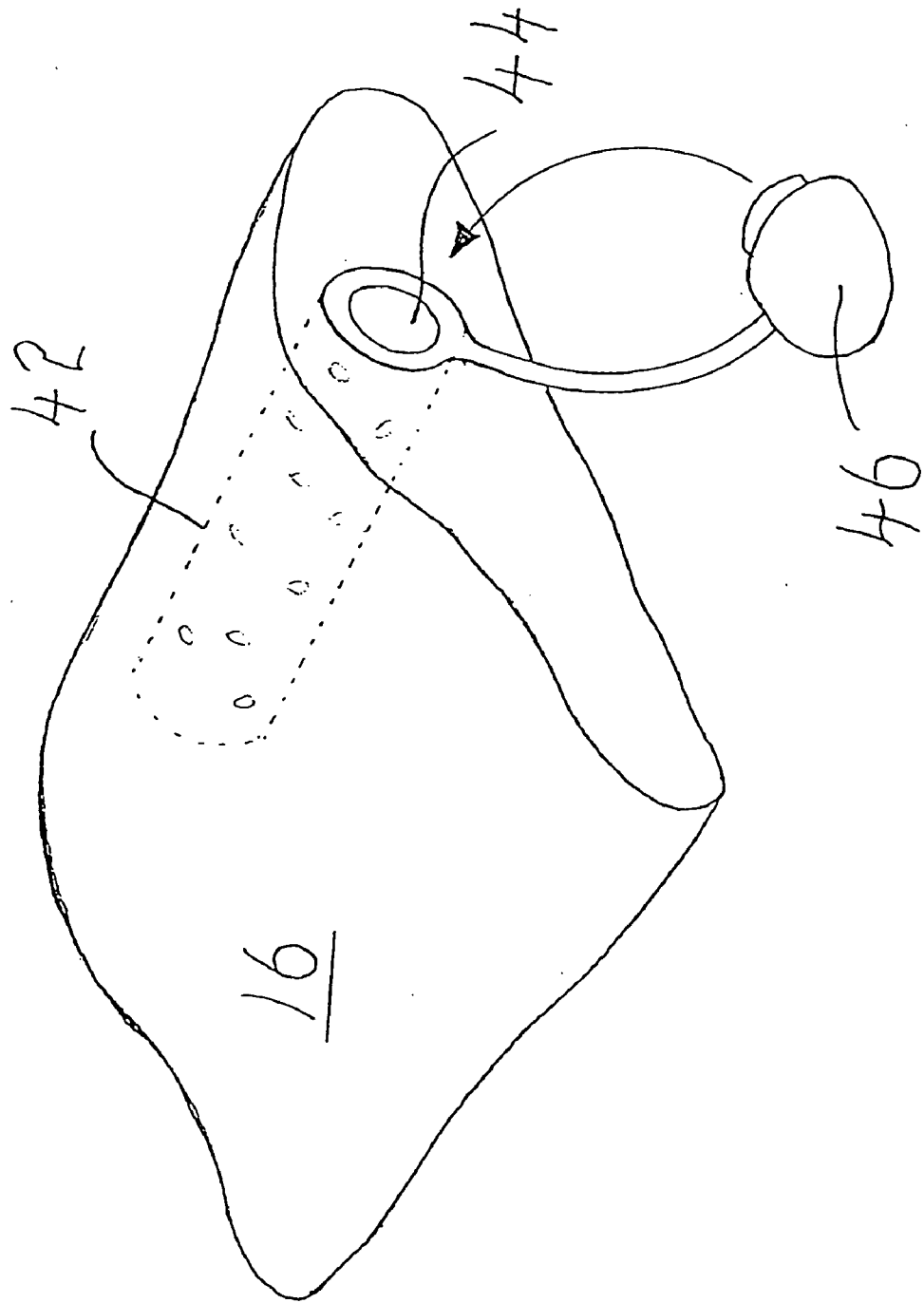


FIG. 3

FIG. 4

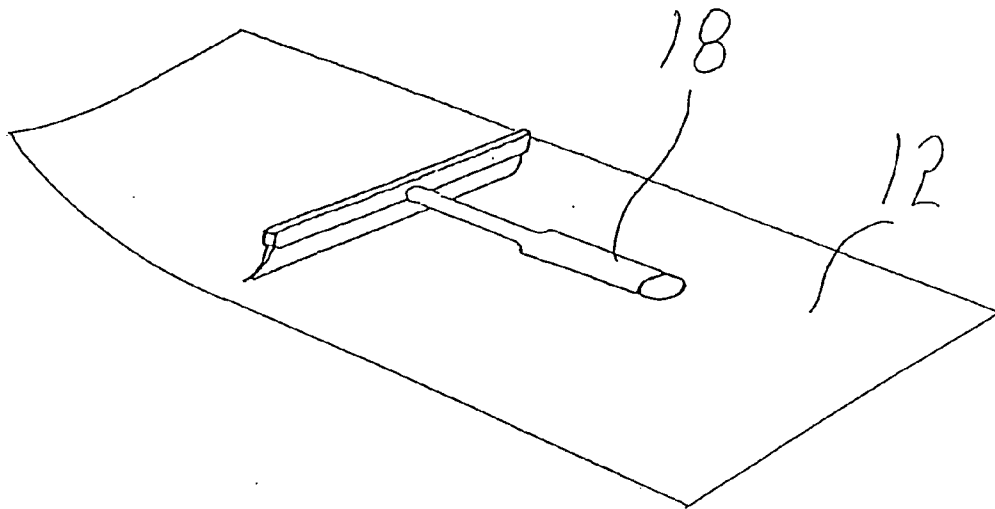
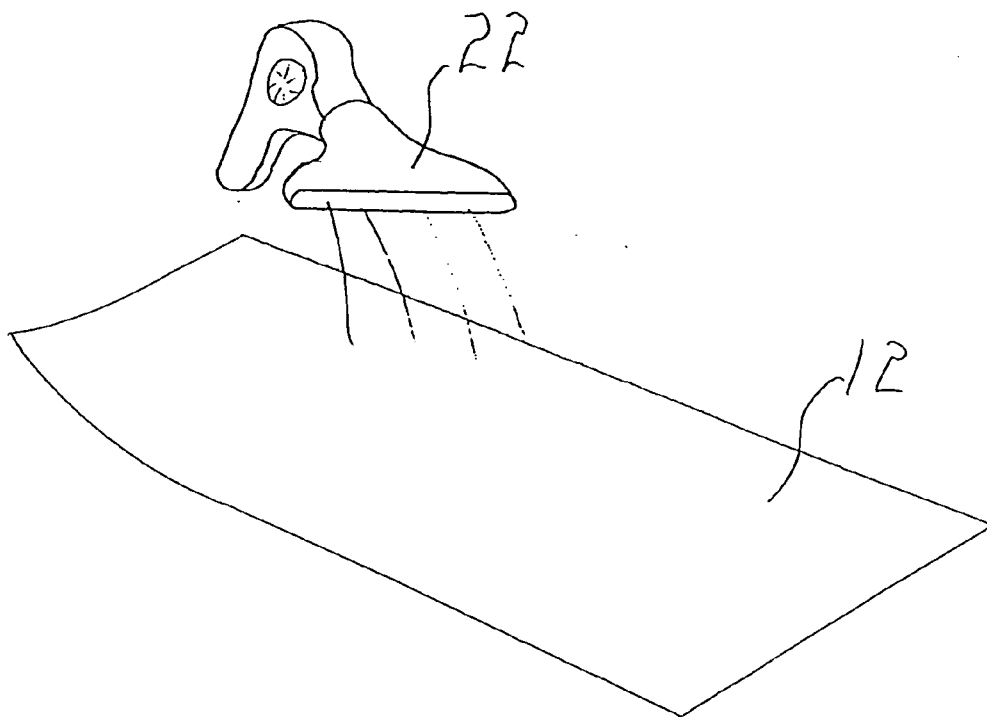


FIG. 5



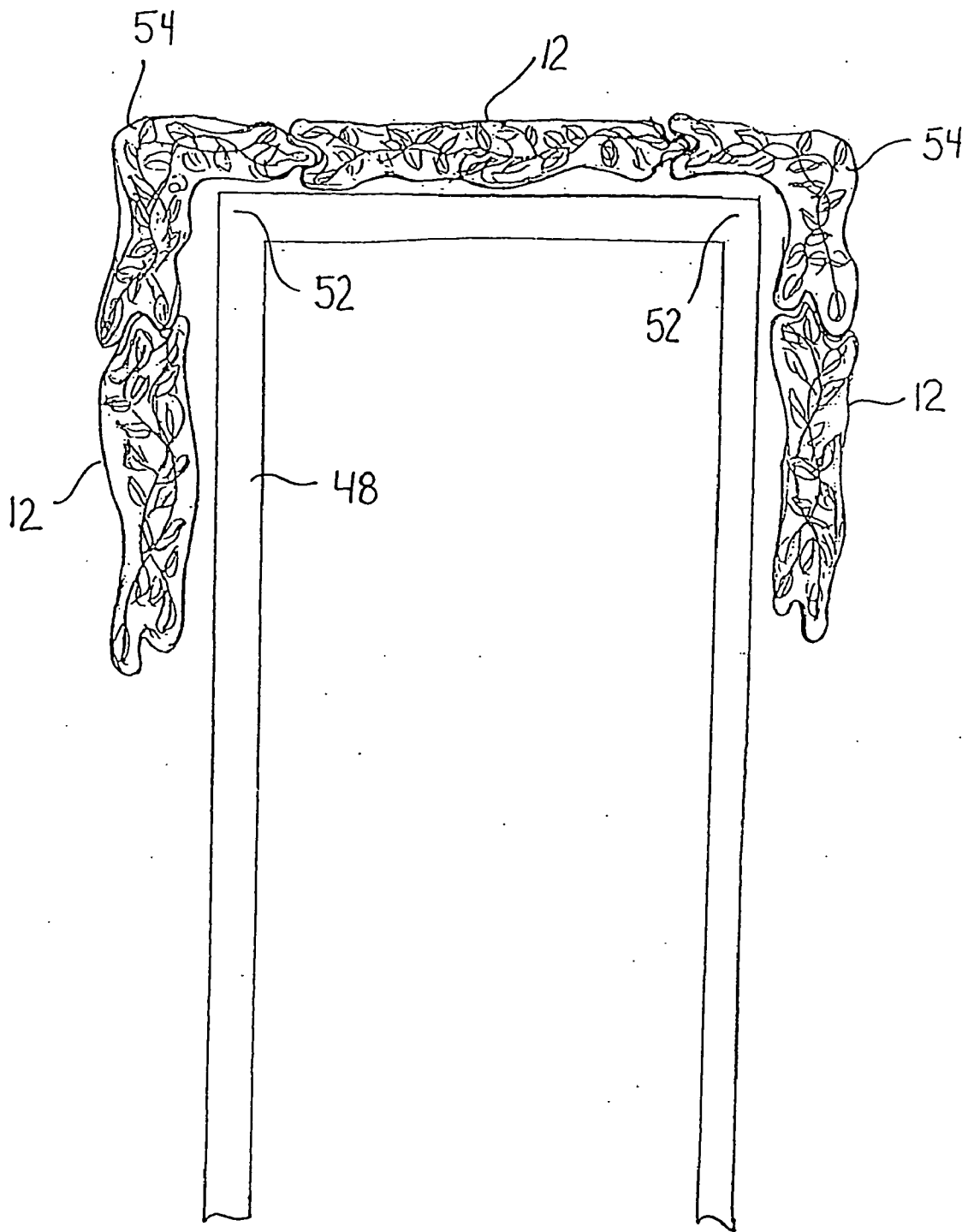


FIG. 6

DECORATIVE PATTERN APPLICATION KIT

FIELD OF THE INVENTION

[0001] The present invention relates to a kit that may be used when applying a decorative pattern to any relatively smooth surface, such as a wall.

BACKGROUND OF THE INVENTION

[0002] Decorative art is used to aesthetically enhance the appearance of surfaces, such as walls. These patterns can be created through stencilling, block printing, faux finishing, and tromp l'oil painting. More commonly, the art is created with wallpaper or wallpaper strips called borders. However, with wallpaper or other covering strips, numerous problems can arise such as matching the background of the printed art to the surface; durability and cleaning of the art; and removal. Further, other problems can arise during installation if the surface is not properly prepared and if suitable measures are not taken to avoid underlying air pockets and other such installation errors.

SUMMARY OF THE INVENTION

[0003] What is required is an application kit which will make it easier for a homeowner to successfully apply decorative patterns onto smooth surfaces, such as walls, wood panels or glass.

[0004] According to the present invention there is provided a decorative pattern application kit which includes polymer plastic panels bearing decorative patterns. Adhesive is provided which is adapted to adhere the panels to a smooth surface. A smoothing tool is provided which is adapted to help free the panels of any underlying air pockets or wrinkles. Instructions are provided to guide the homeowner in the use of the kit.

[0005] The basic kit, as described above, makes it easier for a homeowner to successfully install a decorative pattern on a smooth surface. There will now be described various "enhancements" which can further improve the performance of the kit.

[0006] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, better results may be obtained if the surface has been prepared to receive the panel. Even more beneficial results may, therefore, be obtained when a container is provided containing a liquid surface preparation adapted to prepare the surface prior to adhering the panels. An absorbent surface preparation applicator is provided for use in applying the liquid surface preparation.

[0007] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, correct axial alignment is always a problem.

[0008] Even more beneficial results may, therefore, be obtained when each of the polymer panels have a first end and a second end; with a first interlock profile being positioned at the first end and a second interlock profile being positioned at the second end. The first interlock profile and the second interlock profile are adapted to interlock, such that the first interlock profile of one panel interlocks with the

second interlock profile of an adjacent panel in end to end relation to ensure proper axial alignment.

[0009] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, even more beneficial results may be obtained when the panels have transparent bodies, such that the surface is visible through the transparent bodies. When transparent panels are used, the finish no longer looks like wallpaper or a related type of wall covering. The decorative pattern becomes closer in appearance to the more meticulous and expensive type of finishes, such as stencilling, block printing, faux finishing or tromp l'oil painting.

[0010] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, it would be undesirable for the transparent polymer panels to yellow over time or for the decorative pattern to fade. Even more beneficial results may, therefore, be obtained when the polymer panels are resistant to ultra violet light.

[0011] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, even more beneficial results may be obtained by overlaying a matte laminate self-adhering layer of a clear polymer on the original design layer of polymer.

[0012] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, the use of adhesives can be messy. Even more beneficial results may, therefore, be obtained when the adhesive used is in the form of an adhesive coating on the panels covered by a peel off backing.

[0013] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, the panels could be removed and exchanged with other design panels easier if a second polymer substrate was adhered to the wall beneath the first, while a first polymer matte finished design layer adhered with a less tacky adhesive to the second substrate. This would allow for easier removal of the design and replacement with another design panel if and when desired. While the top panel would be easily removed, the second substrate would require heat, as from a blow dryer, to soften the glue before removal of the substrate panel.

[0014] Although beneficial results may be obtained through the use of the decorative pattern application kit, as described above, mistakes are sometimes made when positioning the panels. Many adhesives are permanent, so that the panel cannot be repositioned or removed without destroying the panels and, in many cases, risking damage to the surface.

[0015] Some adhesives are not tacky enough to allow repositioning as panels will not adhere to the surface a second time. Even more beneficial results may, therefore, be obtained when the adhesive is imbedded with minuscule beads of stronger adhesive thereby allowing the polymer panels to be removed or repositioned. Further, even more beneficial results may, therefore, be obtained when the adhesive releases when exposed to heat, such as hot air from a hair dryer. For this purpose, a nozzle adapted to be attached to a hair dryer, may be added to the kit.

[0016] Beneficial results have been obtained when the absorbent surface preparation applicator is a sponge.

Although beneficial results may be obtained through the use of a sponge, even more beneficial results may be obtained when the sponge has an internal cavity adapted to receive a liquid surface preparation, with the internal cavity having an access opening closable by a closure, such as a plug or cap. This special configuration of sponge enables the homeowner to handle the liquid surface preparation in a most convenient and tidy fashion.

BRIEF DESCRIPTION OF THE DRAWINGS

[0017] These and other features of the invention will become more apparent from the following description in which reference is made to the appended drawings, the drawings are for the purpose of illustration only and are not intended to in any way limit the scope of the invention to the particular embodiment or embodiments shown, wherein:

[0018] FIG. 1 is a perspective view of a decorative pattern application kit assembled in accordance with the teachings of the present invention.

[0019] FIG. 2 is a detailed perspective view of two panels as shown in FIG. 1 with profile and backing.

[0020] FIG. 3 is a detailed perspective view of a sponge as shown in FIG. 1 adapted in accordance with the teachings of the present invention.

[0021] FIG. 4 is a perspective view of a panel being applied.

[0022] FIG. 5 is a perspective view of a panel being removed.

[0023] FIG. 6 is a front elevation view of a door frame with panels applied.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0024] The preferred embodiment, a decorative pattern application kit generally identified by reference numeral 10, will now be described with reference to FIGS. 1 through 3.

[0025] Structure and Relationship of Parts:

[0026] Referring to FIG. 1, kit 10 has elongate polymer panels 12, a smoothing tool 18 and instructions 20. In the illustrated embodiment, a nozzle 22 adapted to be attached to a hair dryer may be included. It will be appreciated that other means of heating may be used. Referring to FIG. 2, panels 12 have a first face 24, a second face 26, a first end 28, a second end 30, and, preferably, a transparent body 32. A first interlock profile 34 is positioned on body 32 at first end 28. A second interlock profile 36 is positioned at second end 30. It is preferred, according to the teachings of the invention, that panels 12 be made of a ultraviolet light-resistant material. An adhesive 38, adapted to adhere panels 12 to a smooth surface, is applied to second face 26. A peel off backing 40 covers adhesive 38 on second face 26. First interlock profile 34 at first end 28 interlocks with second interlock profile 36 at second end 30. Referring to FIG. 3, applicator sponge 16 has an inner cavity 42 with an access opening 44 adapted to receive liquid surface preparation. A plug 46 closes opening 44.

[0027] In an alternative embodiment, kit may also contain a container 14 which containing a liquid surface preparation

adapted to prepare a smooth surface for adhering panels 12, an absorbent surface preparation applicator sponge 16 as illustrated in FIG. 1.

[0028] Operation:

[0029] The use and operation of decorative pattern application kit 10 will now be described with reference to FIGS. 1 through 6. Referring to FIG. 2, backing 40 is peeled away from second face 26 of a panel 12 exposing adhesive 38. Referring to FIG. 4, once each panel 12 is positioned in a desired orientation, smoothing tool 18 is used to press and 'work' each panel 12 flat to the surface. Once one panel 12 has been carefully installed, such as by using a chalk line to ensure proper alignment, the installation of all subsequent panels 12 is simplified by interlocking first interlock profile 34 at first end 28 of one panel 12 with second interlock profile 36 at second end 30 of an adjacent panel 12. When the panels 12 are interlocked they maintain their alignment with the first panel 12. Each panel 12 has a completed design at either end so the decorative patterns can begin or end with each panel 12. Referring to FIG. 5, should the need arise to remove a panel 12, heat is applied to soften adhesive 38. In the illustrated embodiment, a hair dryer with nozzle 22 may be used.

[0030] Referring to FIG. 6, there is illustrated a door frame 48 around which panels 12 have been affixed to a surface 50 surrounding door frame 48. In order to allow panels 12 to be arranged in a continuous fashion around corners 52 of door frame 48, some panels 12 have been formed into corner panels 54. While the illustrated embodiment shows corner panels 54, it will be appreciated that panels 12 could also be formed in other shapes so as to facilitate placement around obstacles or to enhance decorative arrangements of panels 12.

[0031] Referring to FIGS. 1 and 3, it will be appreciated that where kit 10 also contains container 14 containing a liquid surface preparation adapted to prepare a smooth surface for adhering panels 12 and an absorbent surface preparation applicator sponge 16, then, sponge 16 is filled with liquid surface preparation from container 14. Plug 46 is inserted into opening 44. Solution is then applied to a surface by gently pressing sponge 16 to the surface and moving sponge 16 over the area to be prepared. It should be noted that the application of panels 12 are normally done individually. Referring to FIG. 2, once the surface is dry, backing 40 is peeled away from second face 26 of a panel 12 exposing adhesive 38. Panels 12 can then be positioned in a desired orientation and smoothed as described above.

[0032] There are various types of liquid surface preparation which may be used. The critical factor is simply to ensure that the surface is clean. It has been found that petroleum based cleaners leave an oily residue which adversely affects the adhesion of the panels. It has also been found that ammonia based cleaners cause a deterioration in the panels. It has been further found that other cleaners leave a residue. A sign that the cleaner may leave a residue is a "clouding" which occurs when the cleaner is diluted by water. Beneficial results have been obtained through the use of citrus based cleaners. There are a number that are commercially available, such as sold under the brand name "Clear Power" by Melaleuca.

[0033] There are various adhesives which can be used bearing in mind the properties which are desired. Beneficial

results have been obtained through the use of a permanent clear solvent acrylic. The adhesive is a permanent pressure sensitive acrylic. The coat weight is 22 gsm nominal. Adhesion to glass in 20 minutes is 15N/25 mm nominal. Adhesion to glass after 24 hours is 20N/25 mm nominal. Perceived tack is medium. Shear strength is medium to high. Temperature range for application is 5 degrees Celsius to 60 degrees Celsius. Temperature range in service is 30 degrees Celsius to 110 degrees Celsius.

[0034] The panel has a gauge of 70 mym nominal. Tensile strength is 47 N/25 mm M.D. and 43N/25 mm T.D. nominal. Elongation is 180% nominal. Shrinkage is minimal. Finish is available in either matt or gloss. The type of finish selected depends upon the surface to be covered. Suitable panels can be obtained through Ultramark Adhesive Products Ltd. The panels can be obtained pre-coated with adhesive and having a removable backing.

[0035] Preferred Version of Decorative Kit Includes:

[0036] Clear polymer panels of medium tackiness with peel away backing, the primary layer being of UV resistant polymer and printed with UV resistant ink on the top side, and medium adhesive backing on the underside side. An imbedded adhesive can also be used with miniscule beads of extra adhesive that, once broken, will adhere to the desired surface more permanently, allowing for repositioning of the panel before beads are broken and glue sets.

[0037] A matte laminate polymer may also be applied over the design layer for protection of the design and to reduce the glare of reflected light once the design layer has been applied. Alternatively, the original polymer of the design layer may have a matte finish.

[0038] A smoothing tool wider than the width of the panel used to affix the polymer panel more permanently to the desired surface so as to smooth but not stretch the panel. Further, if miniscule beads are imbedded in the lighter tacky adhesive, a squeegee or a firmer plastic tool could help to break the beads thus allowing firmer adhesion to the surface.

[0039] Optionally a matte spray laminate finisher and sealer in a ready-to-use applicator to seal the surface and/or edges of the panels if desired, and to provide an extra non-glare finish to diminish the reflected light.

[0040] Optionally a hair blow dryer attachment with a wider than 6" x 1/2" raised opening at one end and a cuff on the other for universal attachment to the blow dryer. Inside the cuff will be an inner conical shaped sleeve with slits that will allow for adaptation to various common sizes of blow dryers.

[0041] Optionally liquid surface cleaning and preparation solution in an plastic container and liquid surface preparation applicator, preferably with cylinder cutout lined with less porous material and a closure such as a plug or cap. Liquid surface preparation is inserted into the cylinder and is forced through holes toward the rounded applicator side and onto the surface. The application side of the sponge is curved and at least 6" high with a cutout on the opposite side for easy gripping. Once solution is inserted into the cylinder and closed, press sponge gently against the desired surface allowing the solution to soak into the sponge and onto the surface.

[0042] Instructions on how to apply and remove the product, along with a flyer showing examples of other designs and finished product; and possibly an instructional disc for computer or DVD.

[0043] Method of Application, Removal, and Reuse

[0044] To prepare desired surface, remove closure from sponge and fill with preparation solution then replace closure. Holding onto the grip edge, place the opposite edge against the desired surface and gently press, moving the solution soaked applicator or sponge over the area where the decorative panels will be placed.

[0045] Once the surface is dry, measure and/or mark the surface area where the panel is to be placed, then peel the backing approximately half the length of the decorative panel and apply the panel to the prepared surface, discarding the rest of the backing once the panel is adhered. It is preferable to peel the backing off in 2 stages so panel doesn't adhere to itself during application. Start at the centre of the surface area and the centre of the first panel and work toward the edge of the surface. Be sure the panel is where you want it before smoothing. It is suggested that user measure and mark with erasable material (i.e. chalk) if desired before positioning the panels. Once panel is on the surface, reposition if needed to the desired place then gently press the panel to the surface and squeegee over the top, working from the centre to the edge to free the panel of any air pockets or wrinkles. If an air pocket or wrinkle exists, gently peel the panel from the surface past the pocket or wrinkle and smooth and squeegee once again.

[0046] Optionally, when all the panels are in place, finish and seal with the matte laminate spray if desired. Do not inhale. Or a matte layer of polymer may be used. The matte laminate will keep dust and other particles from adhering to the edges of the panel, and will also cut down on the reflected light on the panel surface, making the design more prominent.

[0047] When removing the panels, apply the specially designed attachment to the blow dryer end and gently and evenly heat the surface of the panel in order to soften the adhesive. Once warm, carefully peel the panel from the surface and discard. Reuse of the panels is not recommended.

[0048] Once the panel is removed, wash the surface with the liquid preparation solution or a stronger solution if necessary to remove any residue of adhesive.

[0049] The above described decorative panel is versatile enough to be used on a variety of surfaces, is durable, allowing for reasonable exposure to sunlight, is washable with a damp cloth, repositionable for a time duration of approximately 20 minutes, semi-permanent, and removable when desired, and may be transparent to allow the original surface to show through the panel thus matching panel background to the surface, and further, may be interlocking. Most decorative panels (i.e. wallpaper, or other polymer products) adhere to the surface permanently or semi-permanently, and are removed at cost and damage to the surface, either leaving some of the product behind or taking some of the surface off with removal.

[0050] The use of UV resistant ink and UV resistant polymer guarantees the panels for at least three years in direct or indirect sunlight. Such polymers are not generally

used indoors, though sunlight often discolors interior decor. Further, the clear polymer allows for the original surface to show through the panel making matching of the panel background to the surface unnecessary. The original surface will show through the design at places, making the design appear to be painted onto the surface without the time and cost of hand producing such designs. Currently stenciling, block printing, and faux or tromp l'oil painting are the ways designs are affixed to surfaces. Wallpapers are solid colors and are often difficult to remove. Other polymer or vinyl decorative materials are usually also solid, not allowing the original surface to show through, or do not adhere permanently enough to the surface, or are permanent and unable to be removed. To use a clear removable semi-permanent polymer takes care of these problems, saving the consumer time and trouble, easily matching surface colour to the decor, while producing the finished design of their choosing.

[0051] This kit allows for the various lifestyles of the consumer: preparing and cleaning the surface so the panels will adhere; and providing washable, UV resistant ink on decorative panels that are repositionable for a time duration of approximately 20 minutes, semi-permanent, but removable when desired with help of the special attachment.

[0052] In this patent document, the word "comprising" is used in its non-limiting sense to mean that items following the word are included, but items not specifically mentioned are not excluded. A reference to an element by the indefinite article "a" does not exclude the possibility that more than one of the elements is present, unless the context clearly requires that there be one and only one of the elements.

[0053] It will be apparent to one skilled in the art that modifications may be made to the illustrated embodiment without departing from the spirit and scope of the invention as hereinafter defined in the Claims.

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A decorative pattern application kit, comprising:
 - polymer plastic panels bearing decorative designs;
 - an adhesive adapted to adhere the panels to a smooth surface;
 - a smoothing tool adapted to free the panels of underlying air pockets or wrinkles; and
 - instructions.
2. The decorative pattern application kit as defined in claim 1, wherein there is also provided a container containing a liquid surface preparation adapted to prepare the surface prior to adhering the panels and an absorbent surface preparation applicator.
3. The decorative pattern application kit as defined in claim 1, wherein each of the panels have a first end and a second end, a first interlock profile being positioned at the first end, a second interlock profile being positioned at the second end, the first interlock profile and the second interlock profile being adapted to interlock, such that the first interlock profile of one panel interlocks with the second interlock profile of an adjacent panel in end to end relation to ensure proper axial alignment.
4. The decorative pattern application kit as defined in claim 1, wherein the panels have transparent bodies, such that the surface is visible through the transparent bodies.
5. The decorative pattern application kit as defined in claim 1, wherein the panels are resistant to ultra violet light.

6. The decorative pattern application kit as defined in claim 1, wherein the adhesive is pre-coated onto the panels and covered by a peel off backing.

7. The decorative pattern application kit as defined in claim 1, wherein the adhesive has an initial setting time of at least 20 minutes, the panels being capable of being repositioned during the setting time.

8. The decorative pattern application kit as defined in claim 1, wherein the adhesive bond is weakened when exposed to heat, thereby allowing the panels to be removed.

9. The decorative pattern application kit as defined in claim 2, the liquid surface preparation being a citrus based cleaner.

10. The decorative pattern application kit as defined in claim 8, further including a nozzle adapted to be attached to a hair dryer to facilitate the adhesive on the panels being heated by hot air.

11. The decorative pattern application kit as defined in claim 2, wherein the absorbent preparation applicator is a sponge.

12. The decorative pattern application kit as defined in claim 11, wherein the sponge has an internal cavity adapted to receive the liquid surface preparation, the internal cavity having an access opening closable by a closure.

13. A decorative pattern application kit, comprising:

- polymer panels, each of the panels having a first end and a second end, a first interlock profile being positioned at the first end, a second interlock profile being positioned at the second end, the first interlock profile and the second interlock profile being adapted to interlock, such that the first interlock profile of one panel interlocks with the second interlock profile of an adjacent panel in end to end relation to ensure proper axial alignment, the panels having transparent bodies which carry decorative designs, such that an underlying surface is visible through the transparent bodies, the panels being resistant to ultra violet light;

an adhesive adapted to adhere the panels to a smooth surface, the adhesive being an adhesive coating on the panels covered by a peel off backing, the adhesive releasing when exposed to hot air from a hair dryer, thereby allowing the panels to be removed;

a container containing a citrus based liquid surface preparation adapted to prepare the surface prior to adhering the panels;

an absorbent surface preparation applicator, the applicator being a sponge;

a smoothing tool adapted to free the panels of any underlying air pockets or wrinkles; and

instructions.

14. The decorative pattern application kit as defined in claim 13, further including a nozzle adapted to be attached to a hair dryer.

15. The decorative pattern application kit as defined in claim 13, wherein the sponge has an internal cavity adapted to receive liquid surface preparation, the internal cavity having an access opening closable by a closure.