

April 27, 1965

B. L. JOSEPH

3,180,260

METHOD OF ASSEMBLING RESIN FOAM PRINTING MEMBER

Filed May 7, 1963

2 Sheets-Sheet 1

FIG. 1

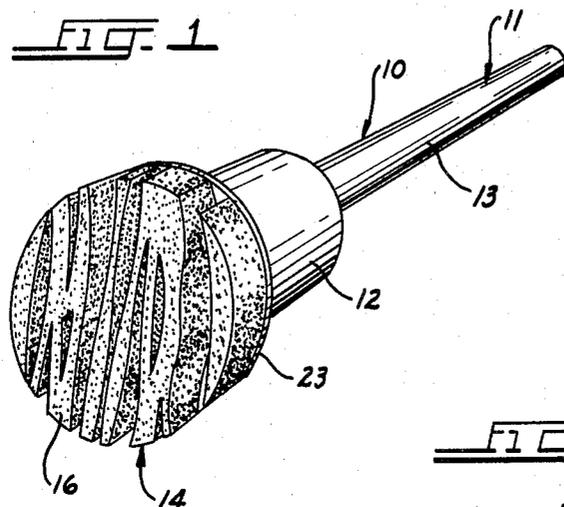


FIG. 2

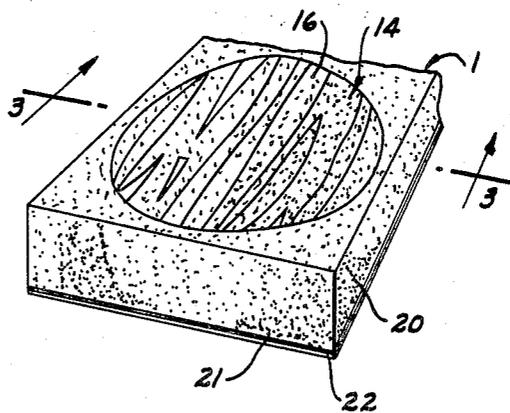
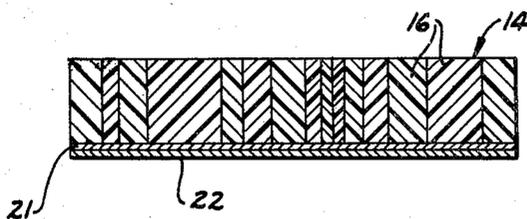


FIG. 3



INVENTOR

BERNARD L. JOSEPH

BY

Charles B. Cannon

His Atty.

April 27, 1965

B. L. JOSEPH

3,180,260

METHOD OF ASSEMBLING RESIN FOAM PRINTING MEMBER

Filed May 7, 1963

2 Sheets-Sheet 2

FIG. 4

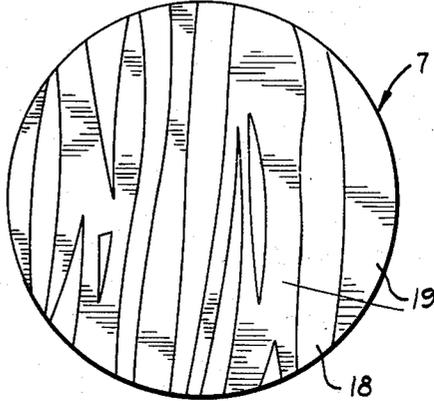
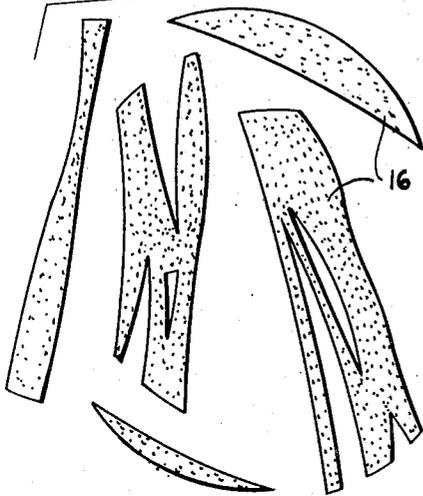


FIG. 5

FIG. 7

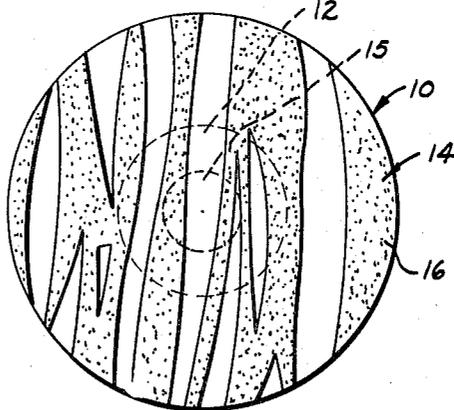
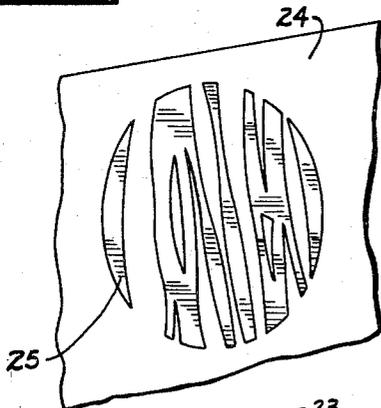
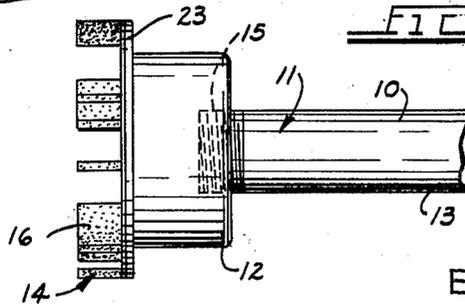


FIG. 6



INVENTOR

BERNARD L. JOSEPH

BY

Charles D. Cannon

HIS ATT'Y.

1

2

3,180,260
METHOD OF ASSEMBLING RESIN FOAM
PRINTING MEMBER

Bernard L. Joseph, Chicago, Ill., assignor to Foamcraft, Incorporated, Chicago, Ill., a corporation of Illinois
 Filed May 7, 1963, Ser. No. 278,684
 4 Claims. (Cl. 101-401.1)

This invention relates to a stencil set and a method for assembling and using the same.

Many different devices have been known and used heretofore for making stencils, and stencil designs on paper, wall surfaces, and the like, but a number of difficulties have been experienced in the use of such devices and among these are the fact that the stencil units commonly form a uniform image or impression on the surface to which the stencil image is applied with the result that many persons object to the use of such stencil designs on paper, wall surfaces, and the like, for ornamental purposes, because of their uniformity. Although I refer to the device described herein as a stencil unit, it is in reality a form of printing member. Such printing members, however, may be commonly referred to as stencil units, and may be so referred to by me, inasmuch as their function is the same as that of a stencil, namely, to impart a somewhat standardized or pre-selected image or pattern on a surface a plurality of times, to create an overall pattern which results from the repetition of the elements or images.

An object of the present invention is to provide a new and improved stencil set and a new and improved method of assembling and using the same which in use overcomes the foregoing and other difficulties experienced in the use of prior stencil sets.

A further object of the invention is to provide a new and improved stencil set which may be used to form ornamental designs and impressions on wall surfaces and the like in such a manner as to avoid the appearance of uniformity and to simulate handpainted designs.

A further object of the invention is to provide a new and improved form of stencil set made from plastic resinous foam material, such as polyurethane resin foam, cut and assembled in a novel manner.

Other and further objects of the present invention will be apparent from the following description and claims and are illustrated in the accompanying drawings which, by way of illustration, show a preferred embodiment of the present invention and the principles thereof and what I now consider to be the best mode in which I have contemplated applying these principles. Other principles may be used and structural changes may be made as desired by those skilled in the art without departing from the present invention.

In the drawings:

FIG. 1 is a perspective view of a stencil unit made in accordance with one embodiment of the present invention;

FIG. 2 is a fragmentary perspective view of a polyurethane foam resin sheet embodying the stencil design of the stencil unit shown in FIG. 1;

FIG. 3 is an enlarged vertical transverse section view on line 3-3 in FIG. 2;

FIG. 4 is an exploded plan view showing, in part, a paper pattern and also showing the polyurethane foam resin components of the stencil design made from and in accordance with the paper pattern shown at the right of FIG. 4;

FIG. 5 is a top plan view of the new stencil unit shown in FIG. 1;

FIG. 6 is a fragmentary side elevation view of the new stencil unit shown in FIG. 1; and

FIG. 7 is a fragmentary perspective view showing a

typical ornamental design imprinted on a wall surface by means of the new stencil unit.

A preferred embodiment of the new stencil unit is illustrated in FIGS. 1, 5 and 6 of the drawings, wherein it is generally indicated at 10, and includes a relatively narrow handle member 13 and a relatively larger supporting head 12 arranged at one end thereof and detachably attached to the handle member 13 by means of a screw threaded connection 15, as shown in FIG. 6. An enlarged disc-shaped supporting member 23 is attached to the outer end portion of the supporting head 12 (FIGS. 1 and 6).

The stencil-forming head of the new stencil unit 10 is indicated at 14 in the drawings and is formed of a series of polyurethane foam resin or like components 16 which may take the form of any desired design, image, picture, lettering, or the like.

In making the new stencil unit 10 the first step in the operation is to form a pattern unit 7, shown in FIG. 4, and which is made of paper 18, or similar material, on which a design or image 19 is inscribed, as by drawing the design thereon in ink, crayon, or otherwise; the design 19 corresponding to the design of the component parts 16 in the stencil head 14.

After the paper pattern unit 7 has thus been completed, the design 19 of the paper pattern unit 7 is transferred, in any suitable manner, to a cutting die (not shown) so that the cutting die will embody the design 19 formed on the paper pattern 7.

A sheet of polyurethane foam resin 20, or like material, is then coated on one face with a coating 21 of a pressure-sensitive adhesive and a sheet of a so-called release coated paper such, for example, as Kraft paper coated with a silicone resin, is then applied over the coating 21 of the pressure-sensitive adhesive. Such pressure-sensitive adhesives and release coated papers are well known in the art and are available commercially on the market. The design 19, previously formed in the paper pattern unit 7, and in the cutting die (not shown), is then cut from the polyurethane foam resin sheet 20 to form the component parts 16 of the stencil design unit 14, such parts being coated with the pressure-sensitive adhesive coating 21 and also with corresponding parts of the release coated paper 22.

The cut-out component sections 16 of the polyurethane foam sheet 20 are thereupon removed from the body of the sheet 20 with the attached pressure-sensitive adhesive coating 21 and portions of the release coated paper 22, and the die cut sections of the release coated paper 22 are removed from the pressure-sensitive coating 21 on the cut-out component parts 16 of the design 14.

The component parts 16 of the design 14, from which the release coated paper portions 22 have thus been stripped, are then adhesively fastened to the disc-shaped supporting portion 23 of the head 12, by means of the pressure-sensitive adhesive coating 21, on the component parts thereof, to form the stencil design unit 14, shown in FIGS. 1, 5 and 6.

In the use of the new stencil design unit 10 the same may be grasped in the hand of the user, by means of the handle 13, and the design unit 14 thereon sprayed with paint, ink, or like image-forming material, of suitable color, such, for example, as gold-colored paint. The design unit 14, thus coated, may then be manually pressed against a wall or like carrier surface 24 to form thereon an image 25 of the design 19-16 embodied in the design unit 14.

As indicated hereinbefore, one of the advantages of the present invention is that in the use thereof a great variety of designs may be formed, following the practice of the invention, and the method embodied therein, and a typical design such as that embodied in the design

3

4

unit 14 may be inscribed upon a wall of a residence, or like surface, with variations in the appearance of the design caused by variations in the degree of manual pressure or force applied during the imprinting operation. In this manner, the image 25 thus applied on a wall or like surface 24 does not have the uniform appearance of a mechanically applied design but simulates a manually or hand made design due to the variations in the design caused by variations in pressure which may be manually applied in inscribing the design. This is accomplished by shifting or otherwise manipulating the handle 13 somewhat to vary the pressure applied thereon so as to vary the pressure applied on the various component parts 16 on the design 14 during the design-imprinting operation.

It will thus be seen from the foregoing description, considered in conjunction with the accompanying drawings, that the present invention provides a new and improved foam stencil set, and a new and improved method of assembling and using the same, and that the invention thus has the desirable advantages and characteristics and accomplishes its intended objects including those hereinbefore pointed out and others which are inherent in the invention.

I claim:

1. The method of forming a printing member unit which comprises the steps of imprinting component parts of a design on a pattern sheet, transferring the design from the pattern sheet to a cutting die, coating a sheet of resilient synthetic resinous cellular material on one surface thereof with a coating of pressure-sensitive adhesive, cutting the component parts of the design imprinted on the pattern sheet from the said sheet of pressure-sensitive adhesive coated resilient synthetic resinous

cellular material, separating the thus cut-out portions of the design from the sheet of said resilient synthetic resinous cellular material, and then attaching the cut-out component parts of the design to a supporting member by means of the pressure-sensitive coating thereon.

2. The method defined in claim 1 in which the pressure-sensitive adhesive coating is covered with a sheet of release coated paper prior to the time the design is cut in the sheet of resilient synthetic resinous cellular material, and in which the cut-out portions of the release paper are removed from the pressure-sensitive adhesive coating prior to the time the cut-out component parts of the design are attached to the supporting member.

3. The method defined in claim 1 in which said resilient synthetic resinous cellular material is a polyurethane resin foam.

4. The method defined in claim 2 in which said resilient synthetic resinous cellular material is a polyurethane resin foam.

References Cited by the Examiner

UNITED STATES PATENTS

1,211,498	1/17	Stenstrom	-----	101-368
1,696,010	12/28	Newman	-----	101-379
1,964,236	6/34	Welch	-----	101-379
2,638,049	5/53	MacPhel et al.	-----	101-327
2,684,012	7/54	Hebert	-----	101-379
3,055,297	9/62	Leeds	-----	101-401.1 X

DAVID KLEIN, Primary Examiner.

WILLIAM B. PENN, Examiner.