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[54]	ASSEMBLY KIT FOR MAKING A DECORATIVE DRAWING BOARD		
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[56]		References Cited	
	UNIT	TED STATES PATENTS	
3 466 217 9/19		69 Mott	

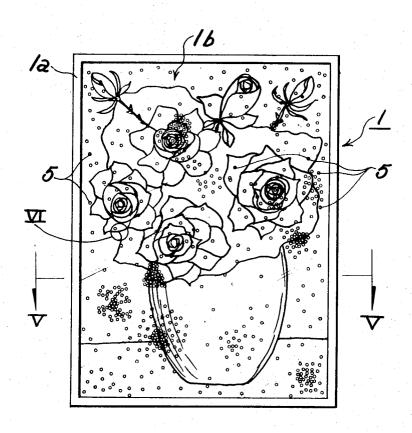
3,405,025	10/1968	Goldman	161/167 X
3,315,374	4/1967	Geraty	35/26
3,516,893	6/1970	Gerard	
2,383,884	8/1945	Palmquist	
3,176,836	4/1965	Gunn	
2,033,288	3/1936	Kmicic	161/18
3,093,462	6/1963	Rapaport	
2,937,931	5/1960	Nugent	

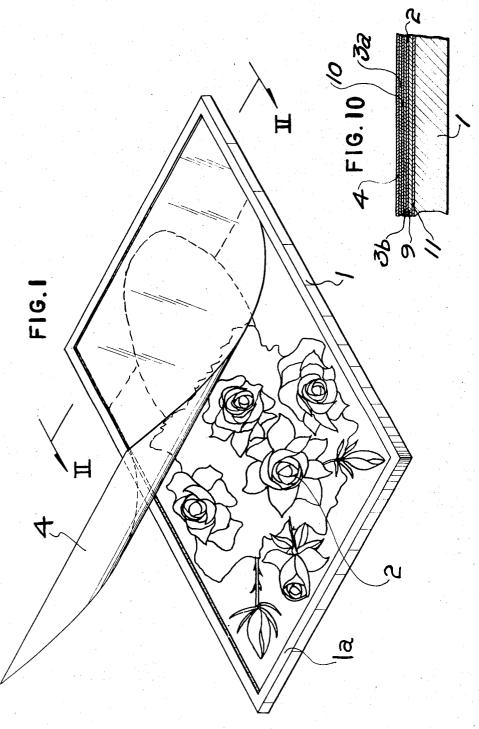
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## 57] ABSTRACT

A decorative drawing board comprising a ground board having on its upper surface an original picture coated with a layer of pressure-sensitive adhesive material. An assembly of variously colored spherical beads are selectively affixed to the adhesive layer in a pattern for reproducing the original picture. The present invention is further drawn to a kit for making the above described decorative drawing board which includes the ground board and assembly of colored beads as individual components.

# 4 Claims, 10 Drawing Figures





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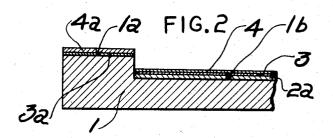
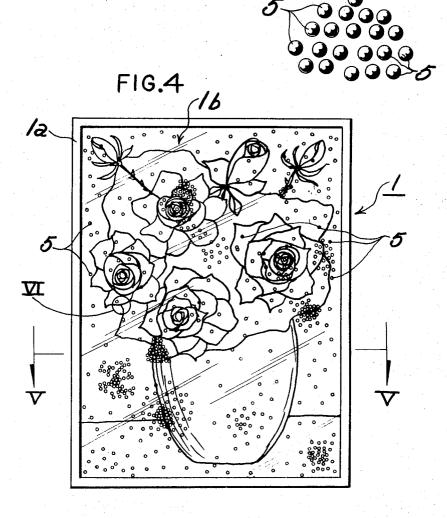
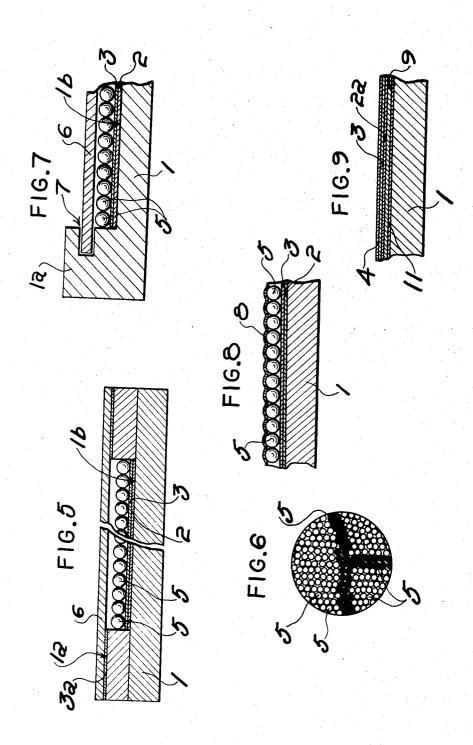


FIG.3



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# ASSEMBLY KIT FOR MAKING A DECORATIVE DRAWING BOARD

#### SUMMARY OF THE INVENTION

This invention relates generally to ornamental structures and more particularly to decorative drawing boards and kits for making the same.

### DISTINCTIONS OVER THE PRIOR ART AND ORIFCTS

The art of rejuvenating or enhancing various diagrams such as pictures, patterns, or letters takes on many forms, the most common one of which is to embroider diverse colored threads or beads of synthetic resin or glass to a suitable fabric printed with the basic diagram. Another common method resides in the use of small pieces of glass or tile which are glued to a suitable board so as to give a mosaic-like expression.

A disadvantage of the above described decorative 20 drawing boards resides in the considerable amount of effort and time required for assembling the same. For example, the embroidery process requires that each bead be individually stitched to the fabric. The time and effort necessary to accomplish this can only be ap- 25 preciated by comparing it to the act of threading hundreds of needles with a thin piece of yarn. On the other hand, the adherent process utilizes an adhesive material of either mineral or vegetable origin for coupling pieces of glass or tile to a suitable board. It has been 30 another component of the assembly kit according to found that this type of adhesive material rapidly solidifies from a liquid or mucous state so that the decorative drawing board must be completed rather rapidly and thus eliminating a reasonable period of time for correction. On the other hand, other types of adhesive 35 material used in the prior art require such a long period of time to solidify that the drawing board cannot be touched or moved for a long period of time after completion thereof. In both cases, a great deal of pressure is required in order to achieve an intimate adhesion of the diagram. Further, caution must always be used so as to avoid contaminating the diagram with the adhesive bond.

Accordingly, a general object of the present invention is to provide a new and improved assembly kit for 45 constructing a decorative drawing board which overcomes the aforementioned defects of the prior art by providing individual components which may be rapidly and easily bonded together.

Another object of the present invention is to provide  $\ ^{50}$ a novel and improved assembly kit for enhancing the appearance of a selected optional diagram such as a picture, pattern or letter.

Yet another object of the present invention is to provide a novel and improved assembly kit which can be rapidly and easily transformed into a decorative drawing board by a woman during her leisure time at home.

Still another object of the present invention is to provide a new and improved decorative drawing board which enhances the quality of an associated diagram.

These and other objects and features of the present invention will become more apparent from a reading of the following descriptions.

The above objects are attained and the prior art defects are avoided by providing a decorative drawing board assembly kit comprising a selected diagram fixedly supported on one surface of a ground board, the

diagram being covered with a layer of pressure-sensitive adhesive material which in turn is protected by suitable means prior to the assembling thereof. The assembly kit further includes an assembly of variously colored spherical beads of glass or synthetic resin which are selectively applied to the adhesive surface of the diagram for enhancing the quality thereof. The present invention further contemplates the assembled 10 product which comprises a ground board and selected diagram with the different colored beads fixed in appropriate positions thereto for enhancing the appearance thereof and a transparent cover of glass or synthetic resin positioned over the diagram for prevent-15 ing the displacement of the beads.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

The present invention and its advantages will become more readily apparent as the specification is considered in conjunction with the accompanying drawings in which:

FIG. 1 is a perspective view of one embodiment of the ground board provided by an assembly kit for making the decorative drawing board according to the present invention;

FIG. 2 is an enlarged sectional view, partly cut away, of the ground board taken along line II—II in FIG. 1;

FIG. 3 is a plan view of an assembly of beads which is the present invention;

FIG. 4 is a plan view of one embodiment of the completed decorative drawing board according to the present invention;

FIG. 5 is an enlarged sectional view, partly cut away, of the drawing board taken along line V-V in FIG. 4;

FIG. 6 is an enlarged plan view of a portion of the drawing board showing the part VI in FIG. 4;

FIG. 7 is an enlarged sectional view, partly cut away, of another embodiment of the decorative drawing board according to the present invention showing a similar part to the one shown in FIG. 5;

FIG. 8 is a sectional view, partly cut away, of still another embodiment of the decorative drawing board according to the present invention showing a similar part to the one shown in FIG. 5;

FIG. 9 is a sectional view, partly cut away, of another embodiment of the ground board according to the present invention showing a similar part to the one shown in FIG. 2; and

FIG. 10 is a sectional view, partly cut away, of still another embodiment of the ground board according to the present invention showing a similar part to the one shown in FIG. 2.

# **DETAILED DESCRIPTION**

Referring now to the drawings, and particularly to FIGS. 1 and 2, a ground board 1, of a preferred embodiment, is shown, the ground board comprising an essential component of an assembly kit for making a decorative drawing board according to the present invention.

The ground board, which is preferably made of plywood or synthetic resin, is rectangular in shape and includes a similarly shaped center inlay 1b which is bordered by an edge 1a.

A printed layer 2 including thereon an original diagram such as a picture 2a is provided on the central inlay surface 1b. It is to be understood that the picture 2a may be applied to the ground board in other suitable ways, such as by handcrafting. A layer of transparent 5 pressure-sensitive adhesive material 3 covers printed layer 2 and picture 2a so as to permit the affixing of a plurality of variously colored beads, which will be described hereinafter. The adhesive is preferably of the type used with cellophane tape or polyvinyl resin tape 10 which has the quality of very slowly solidifying when exposed to the atmosphere. A protective paper layer 4 is temporarily applied to the entire adhesive surface in order to protect the adhesive layer from atmospheric conditions such as dust prior to use and may be easily removed therefrom without stripping off the adhesive layer. This protective layer preferably comprises either cellophane, synthetic resin film or wax coated paper.

In the embodiment shown in FIGS. 1 and 2, an adhe-20 cover off the associated ground board. sive layer 3a and a temporary protective layer 4a similar to adhesive layer 3 and protective layer 4. respectively, are applied to the edge 1a of the ground board for reasons to be described hereinafter.

beads composed of a number of variously colored transparent spherical beads 5 with diameters of, for example, approximately 2 millimeters. The beads are preferably divided into several similarly colored groups which may be accommodated in individual containers 30 in the same manner as described above. or pouches (not shown). The beads, which form an additional component of the assembly kit, are selectively affixed to the adhesive layer of the ground board, in a manner to be described in more detail hereinafter, for enhancing the quality of picture 2a.

In constructing a decorative drawing board by utilizing the above described assembly kit, the protective paper layer is stripped away from the ground board for exposing the adhesive layer 3 and thereafter the beads 5 are selectively applied thereto, each bead of a particular color being positioned adjacent a similarly colored portion of the picture. The end result is the duplication of the original picture 2a which is aesthetically enhanced in a manner and for reasons to be 45 described hereinafter.

Upon completing the last mentioned step, the protecting paper layer 4a is stripped from the edge 1a and a transparent rectangular glass plate 6 having identical dimensions to those of the ground board 1 is placed 50 against and aligned with the top surface of the ground board so as to completely cover the surface thereof, the plate adhering to the adhesive layer 3a. Thus, the beads, which might otherwise tend to be dislodged from adhesive layer 3, are secured thereto owing to the 55 presence of the glass plate.

While the above described operational description has been directed to the assembling of a decorative drawing board from kit form, it is to be understood that substantially the same procedure would be followed in manufacturing the board, except that the protective layers 4 and 4a would not be required.

Turning to FIG. 7, a modified method of applying transparent glass plate 6 to the ground board 1 is shown. In this case, a rectangular groove slightly wider than the thickness of glass plate 6 extends entirely around the inside surface of edge 1a and receives

therein the edge portion of the glass plate which is dimensioned down to cooperate therewith. On the other hand, a completely different manner of restraining the beads 5 may be provided as can be seen in FIG. 8 where a transparent resin is sprayed over the beads so as to form a lacquer layer 8.

It is to be noted that when a transparent glass plate is provided, the necessity for a protective paper layer is eliminated, since the glass plate may be used for preventing dust from adhering to the adhesive layers. However, when a protective paper layer is provided, it is preferable that such layer be transparent for exposing the picture in order that a potential consumer may readily choose from a multiplicity of designs. On the other hand, if the protective paper layer is opaque, a duplication of the original picture 2a may be readily printed thereon for providing the same convenience to the customer, without the necessity of stripping the

Turning to FIG. 9, a second embodiment of the ground board 1 is shown. This embodiment is substantially identical to the one described with respect to FIGS. 1 and 2, except that a suitable sheet member 9 is Turning to FIG. 3, there is shown an assembly of 25 provided for supporting printed layer 2 and picture 2a. An adhesive layer 11 is provided over the inlay portion 1b on the ground board and the sheet member 9 is attached thereto. Adhesive layer 3 and protective paper 4 are thereafter positioned on top of the sheet member

> Turning to FIG. 10, another embodiment of the ground board is shown and is identical to the ground board described in FIG. 9 except that a film 10 bounded on both sides by adhesive layers 3a and 3b is positioned between the printed layer 2 and protective paper layer 4.

As described hereinabove, the assembly kit for making a decorative drawing board according to the present invention generally comprises a ground board and an assembly of variously colored beads which are secured to an original picture by utilizing the highly viscid nature of a pressure-sensitive adhesive. One of the most essential features of the assembly kit is this adhesive material which, owing to its highly viscous nature, remains in a semi-permanent stable state when exposed to the air. This in turn allows the beads to be rolled or maneuvered on the adhesive layer for assembling the decorative board without contaminating the adhesive layer. In addition, the adhesive layer provides little resistance to the beads so that the latter may be simply and rapidly manipulated into their intended positions for realization of a detailed decorative drawing board. That is, for example, a curve is expressed by placing a plurality of beads, having the same color as the original curve, directly above the original curve and pressing lightly with a finger. This procedure takes, at most, between one-tenth and one-twentieth of the time required to do the same in the prior art. Further, no additional tools are necessary as is the case in the prior

It is to be noted that the above described beads are preferably transparent so that the original picture can be seen therethrough. In this case, the beads act as convex lenses so that the picture will take on different forms when viewed from varied angles. Thus, for example, in one instance the picture takes on brightness

whereas in another instance the reflected light causes a shadow effect. In this manner, the decorative drawing board, according to the present invention, exhibits a beautiful decorative effect that can never be expected with a manually drawn picture, a mosaic or an em- 5 broidered picture. In order to strengthen the lightreflecting characteristics for advancing the above described effect, the picture may be metallically printed or may be provided with metallic coloring matter.

While particular embodiments of the invention have been shown, it should be understood, of course, that the invention is not limited thereto since many modifications may be made. It is, therefore, contemplated to tions as fall within the true spirit and scope of the appended claims.

The invention is claimed as follows:

1. An assembly kit for making a decorative drawing board comprising: a ground board having an upper sur- 20 face; a sheet member permanently mounted on said upper surface and having an upwardly displayed original picture thereon; a transparent pressure-sensitive adhesive layer covering the exposed surface of said sheet member and visually revealing said picture; a unitary protective covering sheet coextensive areawise with and releasably mounted over said adhesive layer, wherein said protective sheet includes a picture identical to said original picture; and a plurality of variously

colored beads adapted to be applied selectively to said adhesive layer upon removal of said protective covering sheet.

2. An assembly kit for making a decorative drawing board comprising: a ground board having an upper surface, wherein the upper surface of said ground board includes a central inlay portion bounded around its periphery by an upwardly extending edge portion, said original picture being supported on said inlay portion; a sheet member permanently mounted on said upper surface and having an upwardly displayed original picture thereon; a transparent pressure-sensitive adhesive layer covering the exposed surface of said sheet member and visually revealing said picture; a unitary protective cover by the present application any such modifica- 15 covering sheet coextensive areawise with and releasably mounted over said adhesive layer; and a plurality of variously colored beads adapted to be applied selectively to said adhesive layer upon removal of said protective covering sheet.

3. An assembly kit according to claim 2 wherein said adhesive layer covers said inlay portion and a second

adhesive layer covers said edge portion.

4. An assembly kit according to claim 2 wherein said edge portion includes a groove extending entirely around its inner side surface and wherein said protective sheet is a glass plate for protecting said adhesive layer, the edge of said glass plate being insertable into said groove.

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