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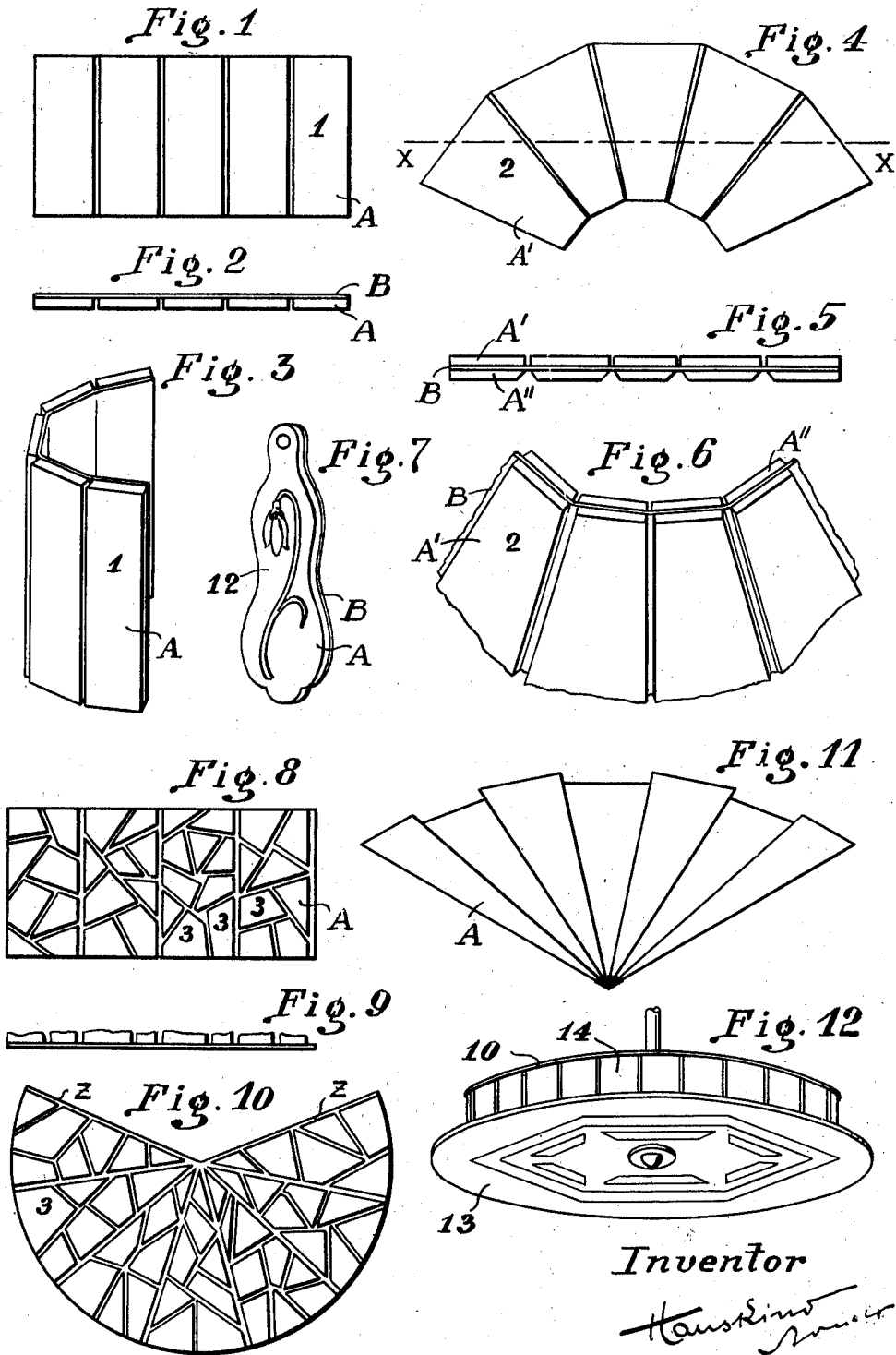
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LAMP FIXTURE AND A METHOD FOR PRODUCING SAME

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2 Sheets-Sheet 2

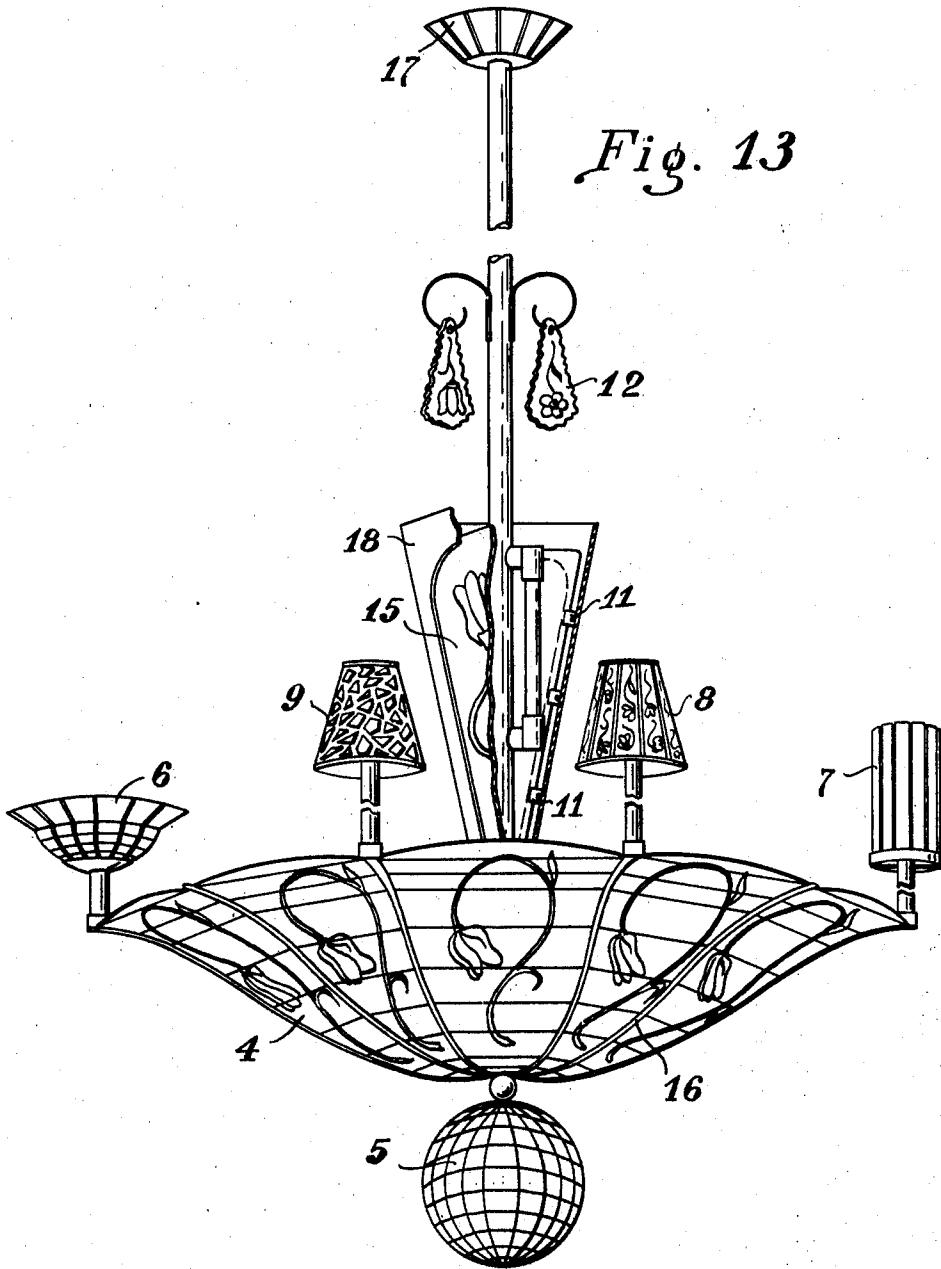


Fig. 13

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LAMP FIXTURE AND A METHOD FOR PRODUCING SAME

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5 Claims. (Cl. 240—108)

This invention relates generally to the manufacture of lamp-fixtures and light-fittings, more particularly to those parts thereof which are used for modifying the light of the lamp and/or for decorating the fixture, and has in view to provide a new method of producing such lamp-fixtures and light-fittings, as lustres, shades, globes, wall or ceiling or foot light-fittings, pendants and the like light-modifiers of any desired design and plates or parts for producing such articles made of strips and pieces of transparent material being secured onto both surfaces, respectively, of a layer of flexible material thus obtaining novel decorative effects, especially when the lamp is lighted. According to the present invention it is possible to produce lamp-shades without any skeleton frame, so that if the flexible material bears any figure, sketch or design, the latter will wholly and uninterruptedly be translucently visible through the transparent material, especially when the lamp is lighted. Such shades also possess the advantage that their form may easily be changed or altered or modified at any time desired, and may also be stretched, rolled or folded for convenient packing or transport.

Articles made according to this invention possess also the advantage that in case any part thereof is damaged, this part may easily be replaced by another part without affecting the article as such and without causing any detriment to its value.

The invention consists in a method of preparing and producing translucent light modifiers of any desired shape, such as, lustres, shades, globes, pendants, ceiling, wall or foot light fittings and the like and plates or parts for such articles, which comprises pasting or otherwise securing a layer of transparent material, such as glass, Celluloid or the like, onto both surfaces, respectively, of a layer of flexible material, such as paper, fabric or the like, of any color or design, thus forming a sheet or strip of compound layer material, segmenting said compound material into a plurality of pieces of any desired design, forming a number of such pieces to the desired shape of the article and retaining them in said shape in such a manner that they may readily be de-formed for convenient packing or transport of the finished articles and may easily be re-formed when desired. The pieces of the compound layer material may be either separate from one another and associated with each other in a suitable frame or ring to hold them to the form of the article required, or a number of such pieces may be interconnected by portions of the flexible material lying between the said pieces of compound material, thus forming flexible hinge lines between them and the properties of flexibility at such lines and of substantial

rigidity between such lines may be utilized in forming the articles to the desired shape. The formation of the pieces to the desired shape according to the present invention is preferably performed after the transparent material has already been secured upon the flexible material, as the division of a complete plate into a plurality of small pieces is easy and convenient, but articles or parts of them as listed above may also be produced of a plurality of individual pieces of transparent material being prepared in advance to the desired shape and afterwards pasted or otherwise secured on to a sheet or ribbon of flexible material, and when the latter method is employed, broken pieces of glass or the like going to waste up to present may successfully be utilized.

The invention will now be described with reference to the accompanying drawings in which:

Fig. 1 is a plan view of a plate made according to my invention, viz., combined of several glass or Celluloid strips, pasted onto one surface of one sheet of flexible material.

Fig. 2 is a sectional view of the plate shown in Fig. 1.

Fig. 3 is a perspective view of a shade formed of a plate as shown in Figs. 1 and 2.

Fig. 4 is a plan view of a semicircular plate, combined of several diagonally cut pieces of transparent material, being pasted onto both surfaces of one piece of flexible material.

Fig. 5 is a sectional view of the plate shown in Fig. 4.

Fig. 6 is a perspective view of a part of a shade formed of a plate shown in Figs. 4 and 5.

Fig. 7 is a perspective view of a decorative piece for a lamp-fixture.

Fig. 8 is a plan view of a plate according to this invention made of broken pieces of glass or the like material, pasted onto one surface of one piece of flexible material.

Fig. 9 is a sectional view of the plate shown in Fig. 8.

Fig. 10 is a plan view of a plate forming a not complete circle, made of broken pieces of transparent material being arranged into triangular groups, pasted onto one surface of the flexible material.

Fig. 11 is a side view of part of a lamp-fixture forming a shade, made of triangular pieces of transparent material, pasted onto flexible material.

Fig. 12 is a perspective view of a part of a lamp-fixture, the horizontal round plate whereof, as well as each quadrangular piece of the border frame, forms a separate part of transparent rigid material being combined with a separate part of flexible sketched or decorated material.

Fig. 13 is a perspective view, partly in section, of a lamp-fixture, forming a lustre, in which var-

ious parts and shades, all being modifications of the present invention, are shown by way of example.

The method of the present invention may be performed in various manners, three of which are substantially as follows:

The first manner is to paste one layer of transparent material onto one surface of the flexible material and to secure a second layer of transparent material onto the other surface of the flexible material after forming the article to the desired shape.

The second manner is to paste the transparent material onto both surfaces of the flexible material and to form the article of such duly compound layer material.

The third manner is to place the flexible material between two layers of strips or pieces of transparent material, and to secure all three layers to each other by means of a frame, screws or clips, without pasting while forming the article to the desired shape.

The end of all the three manners is one, viz., to produce lamp-fixtures, light-fittings, shades or various other parts thereof or for same, in which the color or pattern of the flexible material be translucently and uninterruptedly visible through the transparent material, and which can be folded or stretched or taken to pieces, when desired.

When articles are made according to the first manner, it is possible to paste a plate of glass or the like A onto a sheet or ribbon of paper or fabric B and after the paste is dried, the glass is cut by suitable means into straight strips 1 when a plate as shown in Fig. 1 is desired, or in diagonally shaped strips 2 when a plate as in Fig. 4 is desired, or into variously shaped pieces 3 as shown in Fig. 8 or 10.

It is also possible to prepare in advance strips or pieces of the transparent material A of any desired shape or size and to paste such separate strips or pieces onto a sheet of paper or fabric B. Broken pieces of glass 3 or the like of different shapes and sizes, either after polishing the edges, A' of Fig. 5 or without polishing, as shown in Fig. 9, may also be used for preparing plates as shown in Fig. 8 or 10.

Variously shaped lamp-fixtures, light-fittings, shades and the like articles, may be formed from plates prepared according to my invention. Such articles may also be directly made of transparent material A combined with flexible material B, without the necessity of preparing beforehand any plate. In the latter case, it is possible to clamp a sheet of flexible material B on a suitably shaped mould, and to paste strips 1 or 2 or pieces 3 of the transparent material A, onto the clamped sheet B, either horizontally, as shown in Fig. 13 4, 5 or 6, or vertically 7 or 8, or otherwise, so that when dried, the article removed from the mould is already formed in the desired shape corresponding to the mould used.

The second layer A' of strips or pieces of transparent material is then added and secured onto the other surface of the flexible material.

Vaulted or conically shaped shades or the like articles may also be produced by the following manner: A sheet of flexible material B is to be prepared in the shape of a not complete circle, as shown in Fig. 10 of the drawings, and onto such a sheet, strips or variously shaped pieces of transparent material A are pasted in an order suitable to form the desired shape of the shade. The formation of the shade is then effected by

joining or pasting the ends Z Z of the flexible material B to each other.

When plates or articles are made according to the second manner, a layer of strips or pieces of transparent material is pasted onto each surface of the flexible material in such an order as to enable the formation of the article. It is also possible to make use of a plate prepared according to the first manner, and after the transparent material A is already cut into strips 1 or 2 or pieces 3, a second layer of strips 1 or 2 or pieces 3 duly prepared in the desirable shape and size corresponding to the strips 1 or 2 or pieces 3 being pasted onto the outer surface A', is pasted onto the inner surface A'' of the plate or article as shown in Figs. 5 and 6 of the drawings.

When strips or pieces of transparent material A are pasted onto the inner surface A'' of the sheet of flexible material B, the strips or pieces have to be pasted at a certain distance one from the other, i. e., the strips for the inner surface A'' must be smaller than the strips pasted on the outside surface A', thus enabling the formation of the articles in the desired shape.

Strips or pieces may also be prepared so that the edges thereof are ground in a slanting position see A'' of Fig. 5, and when such pieces are used for the inner surface A'' of an article, they may be pasted onto the sheet of the flexible material B matching piece by piece, so that when the article is formed in a round or otherwise vaulted shape, the slanted edge of one piece interfits with the slanted edge of the adjoining piece one supporting the other, thus holding the article in the predetermined shape (see Fig. 6). Wood or metal bars or the like may also be inserted or fitted between the strips A' of the transparent material.

When articles are made according to the third manner, it is necessary to arrange the two layers A' and A'' of strips of transparent rigid material together with the sheet or ribbon of the flexible material B into a suitable frame. Instead of a frame it is also possible to join the two layers A' and A'' of the transparent material with the flexible one B, by means of clips, screws or the like.

For articles made according to the first or second manner no frame, ring or the like is necessary, but such frame or ring may also be added, when desired.

The above described examples relate to the manner of producing articles in which a single sheet or ribbon of flexible material B is used for a number of strips or pieces or transparent material A. Such plates or articles possess the advantage that they may easily be rolled or folded, either for the formation of the article in its desired shape, or for convenient packing or transport. But articles may also be produced of single members, each member being made and combined according to one of the three manners above described, i. e., one or two strips of transparent material A is or are pasted or otherwise adhered to one or both surfaces of the flexible material B.

When articles are made of such single members, the latter are arranged in a suitable frame or ring 10 Fig. 12 or 11 Fig. 13 or into girders 16 Fig. 13. When such articles are desired to be transported, the frame or ring is dismounted and the members taken out from the frame 10 or girders 16 and packed separately.

By Fig. 13, a lamp-fixture, a lustre, in which

variously modified shades 6, 7, 8, 9, globe 5, rosette 17 and other parts, all made in accordance with the invention, is illustrated. This lustre is constructed of a metal or wood frame, forming the skeleton of the lustre, provided with ribs 16. The latter are made of H-shaped bars (i. e. double channelled), in which channels, single members, strips 4 are arranged. Obviously, suitably shaped foldable plates as described above may also be used when desired. In the middle of the lustre, a triangular fitting for indirect lighting (shown partly in section) is arranged. Said fitting is made of a frame 18 in which single member-plates 15 are inserted and held in position by clips 11. The globe 5 may either be made in the same manner as described in connection with Fig. 10 above, i. e., made of a suitably shaped sheet of flexible material onto which the pieces of transparent material are pasted, or same may also be made of two halves, each half prepared by means of a suitably shaped mould and afterwards pasted to each other or otherwise adhered, or constructed of a frame into which single members are arranged accordingly.

I have shown and described my invention in selected embodiments which I find satisfactory to explain the principle thereof, which consists in the production of lamp-fixtures or light-fittings such as lustres, shades, globes, pendants and the like articles, and various parts thereof or for same, made of transparent rigid material being combined with white, colored, decorated or figured flexible material, thus obtaining articles having novel decorative effects, especially when the lamp is lighted and when the article is removed from the lamp, same may be rolled, stretched or otherwise folded or taken to pieces for convenient packing, casing or transport. I have also shown three manners for carrying the invention into effect; the first one, which comprises pasting one layer of transparent material onto one surface of flexible material; forming said compound layer material to the desired shape of the article and securing a second layer of transparent material onto the other surface of the flexible material; the second one, which comprises pasting the transparent material onto both surfaces of the flexible material and forming the article of such duly compound layer material, and the third one, which consists in piecing the flexible material between two layers of transparent material and connecting these three layers of materials by means of a frame, screws or clips while forming the article to the desired shape. Such articles may be produced either by the use of a single sheet or ribbon of flexible material for two or more strips of transparent material, or also that each piece of transparent material is combined with a separate piece of flexible material. The invention has also been illustrated by the annexed drawings, but it should be understood that by describing and illustrating my invention in such details, I do not intend to be limited to such specific embodiments which are given by way of example only, but to be protected for such further modifications or alterations which are obviously possible within the scope of the invention claimed.

What I claim as new is:

1. A method of preparing and producing translucent light modifiers of any desired shape which comprises securing a layer of transparent ma-

terial upon a layer of flexible material, segmenting said compound layer material into a plurality of pieces of any desired design, forming a number of such pieces of the compound layer material to the desired shape of the light modifiers and retaining them in said shape by securing a second layer of transparent material onto the other surface of the flexible material in such a manner that they may readily be de-formed for convenient packing or transport of the finished light modifiers and may easily be re-formed, when desired.

2. A method of preparing and producing translucent light modifiers of any desired shape which comprises securing a layer of transparent material on to both surfaces, respectively, of a layer of flexible material, segmenting said compound material into a plurality of pieces of any desired design, forming a number of such pieces of the compound layer material to the desired shape of the light modifiers and retaining them in said shape in such a manner that they may readily be disassembled for convenient packing or transport of the finished light modifiers and may easily be reassembled when desired.

3. A method of preparing and producing translucent light modifiers of any desired shape which comprises pasting a plate of transparent material on to a sheet or strip of flexible material, and after the paste has dried the compound layer material is divided into a plurality of segments of any desired design, separated from one another, and a number of such segments are associated in a suitable frame or ring to hold them to the form of the light modifier desired and a second layer of pieces of transparent material is then secured onto the other surface of the flexible material.

4. A method of preparing and producing translucent light modifiers of any desired shape which comprises pasting a plate of transparent material upon one surface of a sheet or strip of flexible material and after the paste has dried the transparent material is divided into a plurality of pieces of any desired design thus forming suitably organized groups of pieces of compound layer material joined together by the portions of the undivided flexible material which lie between said pieces of compound material; forming said organized group of pieces of compound material to the desired shape of the light modified by utilizing the flexibility of the said joint-portions of the flexible material and the substantial rigidity of said pieces of compound material and securing a second layer of suitably shaped pieces of transparent material on to the other surface of the flexible material in such a manner as to retain the light modifier in the desired shape.

5. Translucent light modifiers of any desired design comprising a plurality of pieces of compound material consisting of a layer of transparent material secured on to both surfaces, respectively, of a layer of flexible material in such a manner that one layer of transparent material being pasted on to one surface of the flexible material embodies a segmentally organized group of pieces being adjoined to each other thus forming the design of the light modifier and the other layer of transparent material being secured on to the other surface of the flexible material retains the light modifier in said design.

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