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GLASS PANELS
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Fig.1

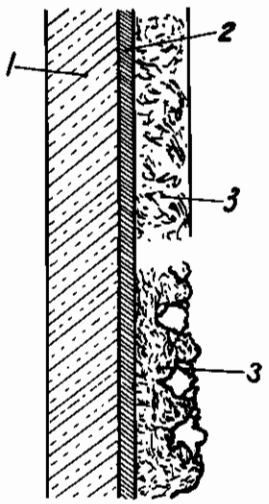
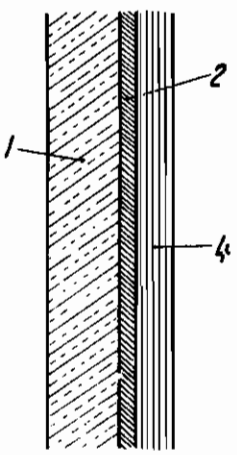


Fig.2



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ALIEN PROPERTY CUSTODIAN

GLASS PANELS

Ugo Somigliana, Como, Italy; vested in the Alien Property Custodian

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The present invention relates to plates and panels of glass especially, although not exclusively, intended to be used for making wall linings.

A first object of the present invention is to provide a colored glass panel or plate which is strong from all viewpoints and easy to manufacture rapidly and at low price.

Another object of the invention is to provide a method of assembling a glass panel of this kind to a support through which a plurality of panels can be assembled and held in position.

Preferred embodiments of the present invention will be hereinafter described, with reference to the accompanying drawings, given merely by way of example, and in which:

Fig. 1 is a sectional view of a glass panel according to the invention applied on a concrete support;

Fig. 2 is a similar view of a glass panel of the same type applied on a plywood support.

The glass panel according to the present invention is obtained by applying on the back surface of a glass plate of any desired kind, shape and size a coating of a varnish, coloured in any suitable manner, obtained as follows:

In a suitable solvent, consisting for instance of a mixture of toluol and benzol, I dissolve a polychlordiphenyl containing a particularly high amount of chlorine (from 60 to 70%) and of high melting point (from 65 to 70° C.), that is to say a chlordiphenyl of a resinous rather than oily character.

In some cases, it may be advantageous to increase the viscosity of the varnish without altering its specific physico-chemical function, for instance by adding other chlorine derivatives of the aromatic hydrocarbons, such as chlor-caoutchouc.

When it is desired to provide the glass panels with a concrete support, I proceed as follows:

Taking a glass panel as above described, I apply on the back face thereof a slight layer of the varnish above described (which in this case needs not be colored), and, immediately after, I sprinkle this layer with a small amount of sand or any other material capable of being bound with mortar or concrete.

After drying of this thin coat of varnish, the sand sprinkled thereon is fixed in a lasting manner and therefore constitutes a very good anchoring surface for the mortar or cement which is applied in any known manner so as to form a layer of the desired thickness and shape.

The sand sprinkled on the back face of the glass panels can be fixed thereon in any other way. For instance, instead of making use of the varnish above mentioned, I might use an alcohol solution of phenol-formaldehyde resin, an aqueous emulsion of rubber, bitumen, paraffin, etc. Or I might directly cover the dry layer of varnish which forms the back face of the glass panel with hot sand (previously heated to at least the temperature at which the polychlordiphenyl that is employed softens), so that said sand, after cooling, is fixed superficially in a very secure manner.

A structure including a glass panel according to the invention fixed on a concrete support is diagrammatically shown by Fig. 1. The glass plate 1 (of a thickness ranging from say 2 mms. to any desired value) is provided, on its back face, with a layer 2 of the varnish above described (of a thickness averaging, for instance, 0.05 mm.), and said varnish layer adheres, as above explained, to the concrete support.

When it is desired to provide for the glass panels another support, for instance of plywood, eternit, cardboard, cloth, etc., it suffices to secure these materials to the varnish layer of the glass plate through any suitable glue or cement, provided that this glue or cement does not attack the chlordiphenyl varnish. For instance I might make use of a polyvinil alcohol glue, a Bakelite alcohol glue, a lac alcohol glue, and so on.

A structure including a glass panel according to the invention fixed on a ply-wood support is diagrammatically shown by Fig. 2. It includes a glass plate 1, with its varnish layer 2, and the plywood layer 4 fixed to said face of the glass panel.

It should be noted that, according to the present invention, the glass plate 1 on which the varnish layer 2 is applied may be of transparent glass, of glass colored throughout its mass, of fire enamelled glass.

It is further pointed out that the varnish of layer 2, which is preferably colored so as to obtain a colored glass panel, must comply with the following conditions, which are necessary for obtaining a perfectly satisfactory product:

a. Good and permanent adhesion to glass;

b. Impermeability, insolubility and absence of swelling in the presence of water;

c. Relative inertia to any chemical function;

d. Good resistance to photo-chemical actions;

e. Very good coefficient of absorption of thermic expansions and of static and dynamic stresses;

f. Chemical stability;

g. Sufficient achromatism not to influence the most delicate shades;

h. Neutral chemical function so as to permit the use of mineral colors and of organic lackers of all kinds;

i. High softening and melting points;

j. Facility of application.

In a general manner, while I have, in the above description, disclosed what I deem to be practical and efficient embodiments of the present invention, it should be well understood that I do not wish to be limited thereto as there might be changes made in the arrangement, disposition and form of the parts without departing from the principle of the present invention as comprehended within the scope of the appended claims.

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