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R. E. MAYALL

2,087,111

WRITING OR DRAWING BOARD

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Fig. 1

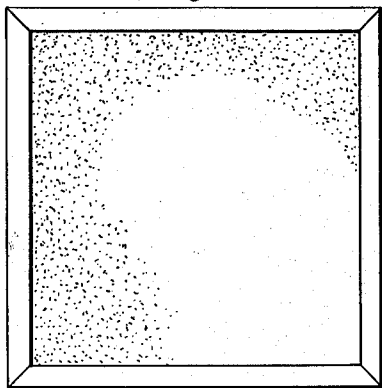


Fig. 2

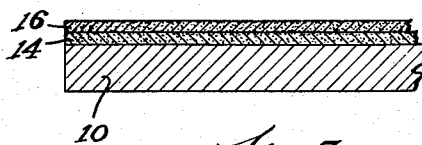


Fig. 3

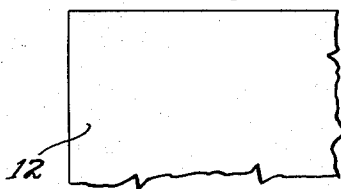


Fig. 4

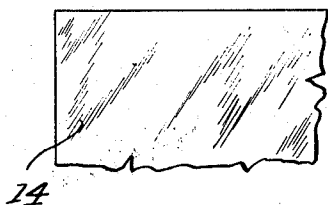


Fig. 5

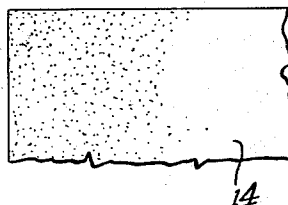


Fig. 6

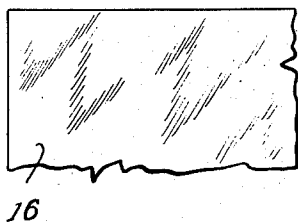
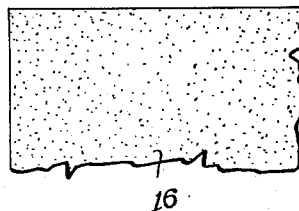


Fig. 7



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WRITING OR DRAWING BOARD

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3 Claims. (Cl. 35—66)

This invention relates to improvements in erasable writing surfaces and methods of making such surfaces, and more particularly to writing surfaces which will take the place of the well-known blackboards for schoolroom and household use, and in which the writing surfaces are white instead of black.

It has long been recognized that black on white is more readily and easily visible than white on black, and various attempts have been made to produce a white "blackboard" without practical success. Such prior "whiteboards" were not sufficiently durable and were too glossy.

White writing boards, or so-called white "blackboards", such as disclosed herein, have many advantages, among which are the following: In schoolroom use it is possible to place upon the board the school work in its natural visual relation, that is, black or dark writings or markings upon a white or light background. The board may be marked in colors as well as black. Marking or writing pencils may be employed of non-dusty material, and therefore the room is kept more sanitary. The board may be easily cleaned by use of a special moist eraser in which may be incorporated a mild antiseptic powder to insure a perfectly sanitary board. The board forms an excellent screen for the projection of motion pictures or stereopticon views. The use of the white "blackboard" eliminates eye-strain by making it easier to read the writings upon the board, by the reflection of light which adds to the illumination of the room, and due to the fact that the pupils do not need to look alternately at the white pages of books and the black surfaces of blackboards. By reducing eye-strain, the use of such white boards adds to the efficiency of the students.

It is an object of my invention to produce a white "blackboard" which will have a hard flat white surface capable of receiving markings or writings from any soft marking material such as pencils, wax crayons, and even inks, which markings may be readily erased.

Further objects and advantages will be more fully apparent from the detail description taken in connection with the attached drawing in which:—

Fig. 1 is a plan view of the white board;

Fig. 2 is a sectional elevation of the white board;

Fig. 3 is a plan view of the base having the initial priming coat thereon;

Fig. 4 is a plan view showing the first layer of varnish or enamel;

Fig. 5 is a plan view showing the application of powder to the first varnish coat;

Fig. 6 is a plan view showing the second layer of varnish or enamel, and

Fig. 7 is a plan view showing the final application of the powder to the second layer of varnish or enamel.

The base 10 of the white board is preferably a hard sheet of asbestos which is insulating and fireproof, and for schoolroom use such a base is recommended. However, any rigid and durable material may be used such as fibre board, pressed wood or "Masonite." The surface of the base is first prepared by applying a priming coat or several priming coats 12 of flat white wall paint. The base will then have the appearance of Fig. 3. Next, the surface is painted with a suitable varnish or enamel, preferably a varnish, having a base of a phenol-formaldehyde resin such as a "bakelite" resin. This varnish or enamel coat 14 preferably includes lithopone or other pigment to give it a white color. The varnish is allowed to dry from two to four hours until it is tacky, and it may be explained that the tackiness is similar to the tackiness of the size for laying gold leaf. The surface then, as shown in Fig. 4, is subjected to a blast of powder so that the powder penetrates and permeates the varnish coat before it has hardened. It has been found that satisfactory results cannot be obtained by first mixing the powder with the varnish before painting the surface, because the powder settles toward the bottom of the coating upon drying or hardening thereof, and sufficient filling of powder cannot be obtained. The application of the powder by blasting or spraying results in a firm, hard surface and a uniformly dense coating when the varnish is entirely dry.

It is desired to use as the powdered material a hard, gritty, abrasive substance such as powdered glass, pumice, "Alundum", emery or a mixture thereof. The powder is preferably a levigated powder as fine as flour, and is preferably sprayed and propelled into the tacky varnish coat such as by the use of an air gun. The surface will then appear as in Fig. 5, and it is usually found desirable to apply a second coat of varnish, 16, as in Fig. 6, and a second application of the powder as in Fig. 7. However, after the first application of powder the surface should be allowed to dry in an even temperature for several days before the second coat of varnish is applied. The application of the powder gives a harder, more unitary coating and

substantially eliminates the glaze of the varnish surface.

The board may be marked or written upon by the use of any of the softer writing materials such as for example, wax crayons, compressed charcoal, graphite and pastels and inks in various colors. The markings can be readily erased with a moist and gritty eraser.

Various modifications may be resorted to in the practice of my invention without departing from the spirit thereof as expressed in the appended claims.

I claim:

1. A method of preparing a writing board, which consists in coating a base with varnish, forcibly spraying powdered material into the coating before the varnish has hardened, so that the powder penetrates and substantially completely permeates the coating, and causing the coating to dry, thereby to produce a hard, mat surface adapted to receive erasable markings.

2. A method of preparing a writing board having a light colored surface, which consists in coating a base with a resinous varnish, partially

drying the varnish to a tacky condition, then filling the coating with a whitish, levigated abrasive powder by forcibly spraying the powder into the varnish so that it penetrates and substantially completely permeates the coating, and causing the coating to dry, thereby to produce a hard, mat surface adapted to receive erasable markings.

3. A method of preparing a writing board, which consists in applying a priming coat to a base material, coating the primed base with a phenol-formaldehyde varnish, forcibly spraying powdered abrasive material into the varnish coating before the varnish has hardened, so that the powder penetrates and substantially completely permeates the coating, causing said coating to harden, then applying a second varnish coat, forcibly spraying powdered material into said coat before it has hardened, and finally causing said coat to harden, thereby to produce a hard, dense, mat surface adapted to receive erasable markings.

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