A sand painting and a method of creating an attractive and decorative permanent painting from colored sands involving: releasably attaching a spacer and a sealer strip mounting a transparent panel thereon around three peripheral edges of a face of a backing board coated with a dried, soluble adhesive; erecting the connected spacer and sealer strip and backing board such that an opening into the space between the backing board and the transparent panel is at the top end of the assembly; pouring patterns of natural sands or sands that have been colored by application of a pigment and sealant mixture thereto through the opening to form a desired pattern or design between the backing board and transparent panel; laying the backing board flat; removing the sealer and spacer strip and transparent panel therefrom; spraying the sand picture with a clear solvent solution that will percolate through the sand grains to soften the adhesive with which the backing board has been coated and which thereafter re-hardens to bind the sand grains thereto; and spraying a clear bonding agent mixture over the entire picture that adheres to the sand grains making the picture waterproof and permanent.

9 Claims, 5 Drawing Figures
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METHOD OF PRODUCING A SAND PAINTING

FIELD OF THE INVENTION

This invention relates to methods for creating and permanently preserving an attractive picture or design formed from colored sands on a flat backing board.

PRIOR ART

Painting with colored sands is probably one of the few art forms that can be considered native to the Western Hemisphere, having been practiced by the Indians of the Southwestern United States for centuries before Columbus discovered the New World.

In recent years, methods have been developed for forming a permanent painting from sand and the like, on a backing surface. One such process is disclosed in U.S. Pat. No. 3,315,374 wherein portions of a backing surface are coated with an adhesive and colored particles are sprinkled on the wet adhesive to be bonded in place when the adhesive dries. When the particles are once placed in position they cannot be moved or changed.

U.S. Pat. Nos. 3,013,370 and 999,112, disclose processes involving steps for forming a design or picture from mosaic chips or colored particles by pouring the particles between spaced apart plates. The picture or design of these processes is preserved by pouring an adhesive thereover or laying a sticky adhesive coated flexible sheet thereover.

U.S. Pat. No. 2,876,575, discloses a process involving the steps of coating a picture formed by applying sand grains to an adhesive covered surface with a varnish or shellac to preserve the sands in position.

SUMMARY OF THE INVENTION

As noted, painting with colored sands is an old art which in recent years has been refined and improved such that the product created can be permanently preserved. However, neither the patents noted above, nor any other art, to my knowledge, discloses the steps of the present invention and particularly, none incorporate the step of forming a desired picture from colored sands on a dried adhesive surface which is resoftened by percolating a softening material through the sands to adhere to and bind the particles after an acceptable representation has been formed thereon. Since a dried adhesive surface is provided on which the design is formed, the artist can work at a leisurely and careful pace and then after he is fully satisfied with his creation, he can permanently bond the picture to the backing surface.

It is a principal object of the present invention to provide a method for easily and efficiently forming, with colored sands, a picture or design on a backing surface that incorporates a dried soluble adhesive thereon that is softened to bond the formed picture by application of a solvent.

Principal features of the present invention include use of a suitable non-warping backing board, one face of which is coated with a soluble adhesive, preferably water soluble) which has been allowed to dry thereon. A transparent panel having a spacer and seal strip arranged on one of its faces, around three peripheral edges thereof, is clamped onto the backing board with the spacer and seal strip in contact with the dried adhesive coated face thereof. The backing board is arranged such that the open peripheral edge between the backing board and the transparent panel is at the top and sands of different colors and shades are poured through the open peripheral edge, filling the space between the panel face and backing board surface. The colored sands can thereby be poured, utilizing the natural angle of repose of the sand grains to build mounds or to make flat areas or strips as desired. A sand painting is thereby built up from the spacer opposite to the opening between the back board and panel face. The picture or design being formed can be observed through the glass panel as the sands are poured therein and necessary control of the sands being poured can be exercised. Individual colors of sands can be supplied or the sands can be blended for artistic effect either before or during pouring.

Naturally, colored sands can be used or it is possible to use sands having a fine grain that are artificially colored as by adding a coloring agent and a bonding agent, preferably consisting of a vinyl and acrylic mixture, to a portion of wet sand and tumbling the grains of sand until the mixture has dried on the individual grains, bonding the pigment thereto.

With a picture formed thereon, the board is then laid flat with the painting facing upwardly, and the transparent panel and spacer and seal strip are removed therefrom. A solvent, which may be water for a water soluble adhesive, is then gently sprayed over the finished granular surface and percolates through to soften the soluble adhesive below and to set the individual particles in bonding contact therewith.

The bonded surface is allowed to dry and then may be further coated with a bonding agent, such as a transparent or clear vinyl and acrylic mixture, that will waterproof and even more permanently preserve the picture or design on the backing board surface.

Additional objects and features of the method of the invention will become apparent from the following detailed description, taken together with the accompanying drawings.

THE DRAWINGS

FIG. 1 is a perspective view of a backing board with a soluble adhesive applied to its top face;

FIG. 2, a perspective view of the backing board of FIG. 1 standing on its edge having a spacer and seal strip and glass panel clamped to its face and colored sand grains being poured from tubes therebetween;

FIG. 3, a perspective view like that of FIG. 1 showing a sand painting formed on the backing board being sprinkled with adhesive solvent;

FIG. 4, a perspective view like that of FIG. 3, showing the bonded sand painting being sealed by an application of a bonding agent thereover; and

FIG. 5, an enlarged vertical sectional view taken along the line 5—5 of FIG. 4.

DETAILED DESCRIPTION

Referring now to the drawings,

The method of the invention is practiced by first applying a layer of a soluble adhesive 11, which may be a water soluble glue such as that commonly sold by the DuPont Corporation under the trademark "Elmer's Glue," for example, to an appropriate face of a non-warping backing board 10, FIG. 1. A pressed wood chip particle board has been found to be very suitable for use as the backing board 10 on which to practice
the process of the invention, since it resists warping when subjected to moisture. The adhesive layer 11 is allowed to dry on backing board 10 and transparent panel 12, which may be of glass, for example, having a spacer and sealer strip 13 on one face at three peripheral edges thereof is moved to place the strips in sealing contact with the dried adhesive layer 11 on backing board 10, and is attached thereto by C-clamps 14, FIG. 2. The backing board 10, with the transparent panel 12 secured thereto, as shown in FIG. 2, with the open top area 12a allowing admission between the panel 12 and the backing board 10 at the top. Colored particulate materials, preferably sands, are then poured from tubes 15, or other such vessels, between the glass panel and backing board, filling the space therebetween. The natural angle of repose of the colored sands allows the artist to pour the sands evenly or in mounds over the spacer and sealer strip opposite to the open top 12a, building up a desired picture of which may, for example, consist of scenes 16 depicting water, sky and even high jagged mountains. The picture is continually observable during its formation through transparent panel 12. If the artist is not satisfied with the picture, for any reason, he can reposition sand particles with a thin probe or he can readily dump all of the sands through opening 12a, to try again.

While permanently colored sands useful in the process of this invention are known and are commonly available, it is possible to provide sands having deep, permanent, artificial colors, suitable to produce a fine quality painting. The sand coloring process consists of treating a quantity of wet sand with a mixture of a desired pigment and bonding agent, preferably consisting of a vinyl-acrylic. The combination of sand and coloring mixture is tumbled or stirred to continually separate the individual grains and to keep them from sticking together as the pigment and bonding agent mixture dries thereon. Permanently colored sand grains are thereby provided that will readily bond together in a desired arrangement when the finished picture is formed.

Once a desired picture 16 is formed that fills the space between the backing board 10 and glass plate 12 the board is laid on its back such that the picture 16 is turned upwardly, and clamps 14 are removed. The glass plate 12 and the spacer and sealer strip 13 are carefully removed therefrom, exposing the sand picture 16 on top of the dried adhesive coating. A solvent solution is then gently applied from a water spray 17 over the surface of picture 16. The solvent solution percolates downwardly through the sand painting, packing it and urging the sand grains into contact with adhesive layer 11. If the adhesive 11 is water soluble, it will be apparent that the solvent solution used can be ordinary water. The adhesive layer 11 is in turn re-softened by the solvent moving through the sand grains proximate thereto, and upon re-hardening, bonds to the sand grains.

Once the adhesive layer 11 has re-dried, a sealant mixture consisting of water and a bonding agent, which bonding agent is preferably a clear version of the vinyl and acrylic mixture used to bond a color pigment to the individual sand grains, is sprayed over the picture. The bonding agent waterproofs the picture and even more permanently fixes the position of the sand grains. The mixture of bonding agent and water 18, is shown in FIG. 4, being applied from a spray bottle 19 onto picture 16. Use of a bonding agent to waterproof and seal the finished picture that is the same as, or like, the bonding agent used to seal the coloring pigment to the individual sand grains insures that a strong permanent bond between the sand grains of the picture 16 will be established. Once the bonding agent and water solution 18 has dried thereover, the sand painting 16 is permanently bonded to the backing board 10 and can even be subjected to some moisture without re-softening the adhesive layer 11.

It is also possible to have pre-drawn picture outlines 20 on either the transparent panel 12 or the backing board 10. Thus, a person making a picture can use the pre-drawn outline as a guide for sand placement. Different portions of the pre-drawn picture can also be numbered, lettered or provided with other indicia to identify the color sands to be filled into the corresponding picture area in making a picture. This technique allows even an unskilled person to quickly make a very attractive picture.

Although particles of colored sand have been shown and described as the preferred media for creating picture 16, it should be understood that other colored particulate materials, such as beads, colored glass or plastic chips, or the like could be used without departing from the method for forming a painting with sand of the present invention. Also, while the spacer and sealer strip has been disclosed as being of one piece, affixed to the transparent panel edges, it should be apparent that it could as well be in sections and could be separate from the panel.

Although a preferred embodiment of the method of my invention and the article produced thereby has been herein disclosed, it is to be understood that the present disclosure is made by way of example and that variations are possible without departing from the subject matter coming within the scope of the following claims, which subject matter I regard as my invention.

I claim:
1. A method of making a permanent painting with sands of different colors comprising the steps of applying a layer of a soluble adhesive to a face of a backing board and allowing said adhesive layer to dry thereon;
positioning a spacer and sealer strip forming three adjacent peripheral edges between the adhesive coated face of said backing board and an overlying transparent panel;
positioning said backing board such that an opening through said sealer strip and between said transparent panel and said backing board is at the top of the assembly;
pouring colored sands through said opening into the space between said transparent panel and said backing board to form a picture with the different colored sands poured therein;
positioning the backing board with said picture formed thereon facing upwardly;
removing said transparent panel;
sprinkling the surface of said picture with solvent for the soluble adhesive to soften said adhesive layer therebelow, which re-softened adhesive layer bonds to said sands making up said picture; and
re-drying said adhesive layer.
2. A method of making a permanent painting with sands of different colors as recited in claim 1, wherein
5 the soluble adhesive applied is a water soluble adhesive and the solvent solution used is water.

3. A method of making a permanent painting with sands of different colors as recited in claim 1, wherein the spacer and sealer strip and transparent panel are clamped to the backing board.

4. A method of making a permanent painting with sands of different colors as recited in claim 1, wherein the colored sands are poured from tubes into the space between said transparent panel face and said dried adhesive coated back board face.

5. A method of making a permanent painting with sands of different colors as recited in claim 1, further including coloring the sand particles used by combining a mixture of a color pigment and bonding agent to a portion of wet natural sands; and tumbling said sand, color pigment and bonding agent mixture until the bonding agent has dried on the individual sand grains thereby binding the color pigment thereto.

6. A method for making a permanent painting with sands of different colors as recited in claim 5, wherein the bonding agent is a vinyl and acrylic mixture.

7. A method of making a permanent painting with sands of different colors as in claim 1, further including the step of coating the surface of the picture formed by sand bonded to the re-dried adhesive layer with a clear bonding agent.

8. A method of making a permanent painting with sands of different colors as in claim 7, wherein the clear bonding agent is a mixture of vinyl, acrylic and water.

9. A method of making a permanent painting with sands of different colors, as recited in claim 1, further including pre-drawing the outline of the picture to be formed to be visible through the transparent panel.

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