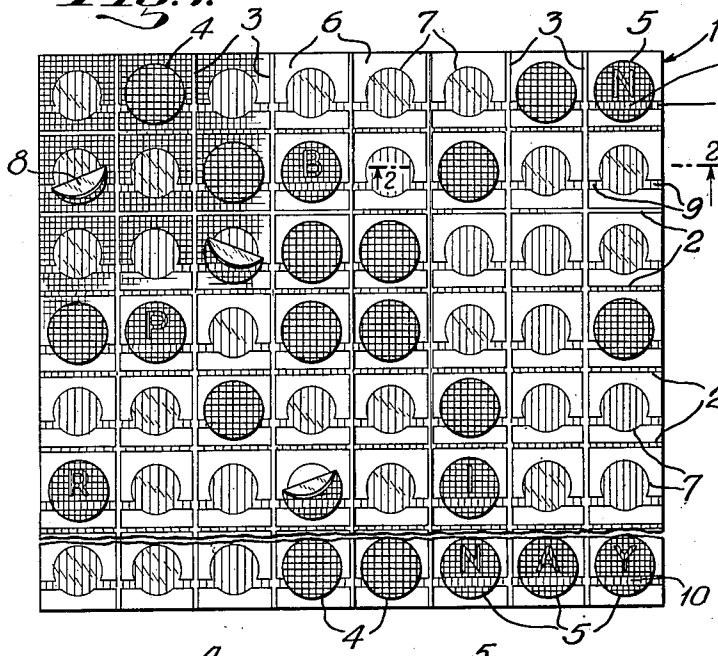
Feb. 19, 1952 B. H. FREEDMAN ET AL 2,585,924

GAME

Filed Sept. 10, 1947 2 SHEETS—SHEET 1

Fig. 1.



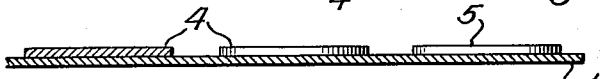


Fig. 2.

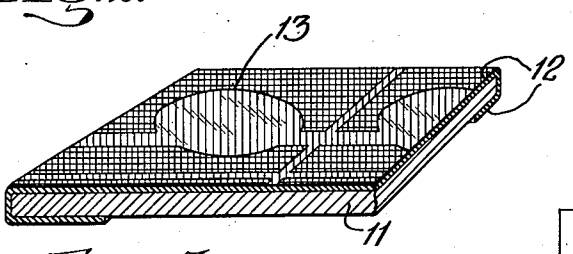


Fig. 3.

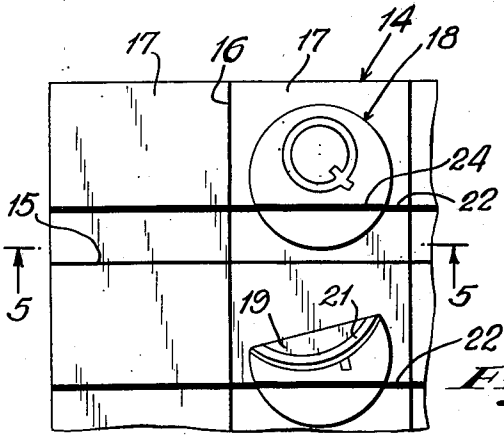


Fig. 4.

Fig. 6.

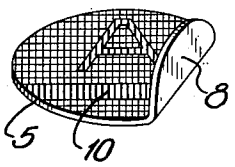


Fig. 7.

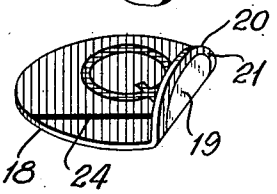


Fig. 8.

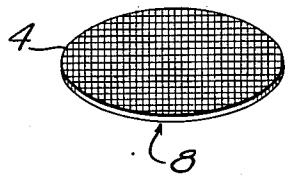


Fig. 9.

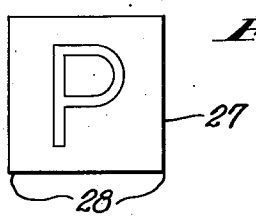




Fig. 5.

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Fig. 10.

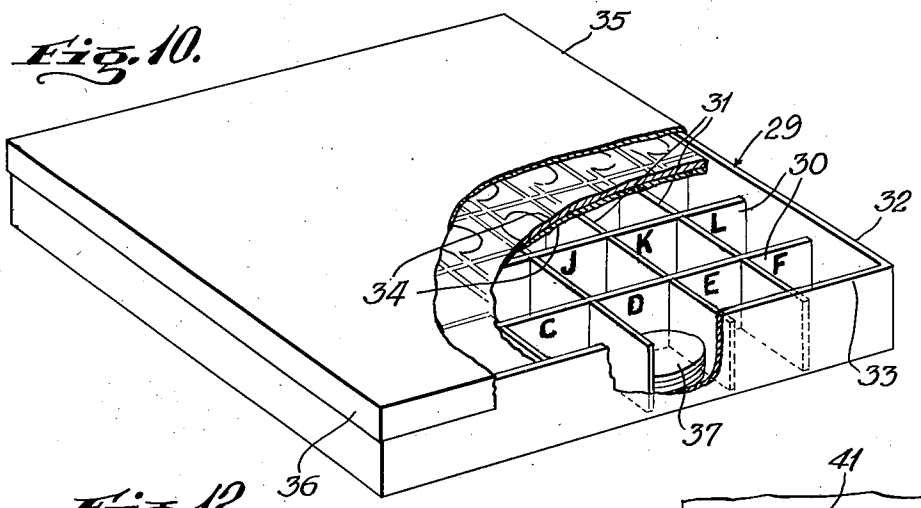
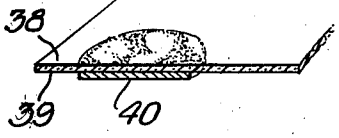


Fig. 12.



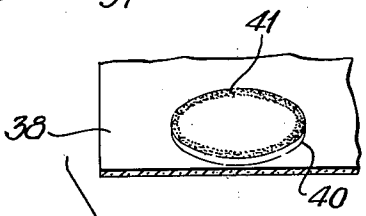


Fig. 13.

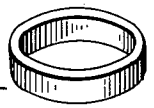
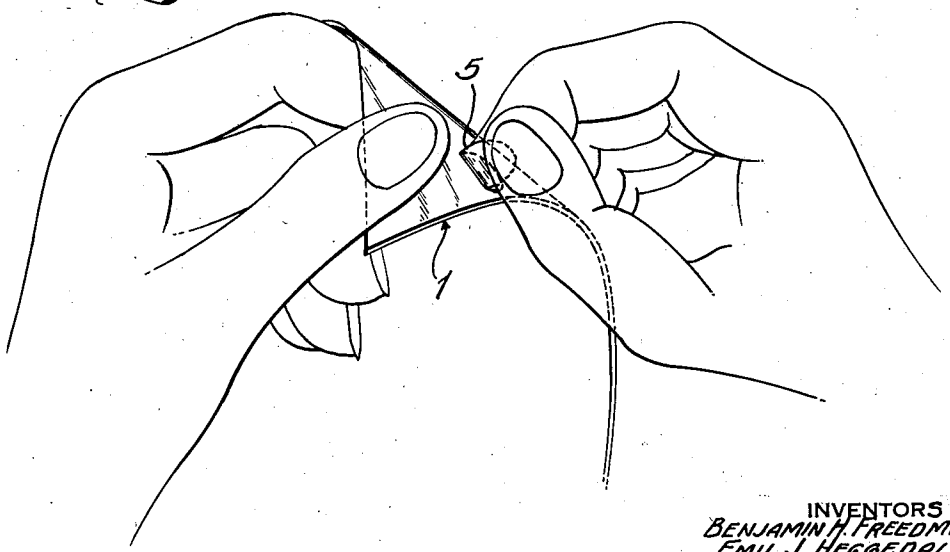


Fig. 11.



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Application September 10, 1947, Serial No. 773,094

7 Claims. (Cl. 41—34)

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This invention relates to games in general, and more especially to games such as cross-word puzzles, jigsaw puzzles, checkers, chess, and the like.

With games such as cross-word puzzles and the like, a difficulty encountered resulted from the fact that if the letters to be supplied for a given board are marked in ink on a paper master, if it were necessary to change the same, it would be practically impossible to do so without ruining or badly disfiguring the paper master. If, on the other hand, the letters to be supplied for the given board are marked in pencil on the paper master, if required to be changed, unless the paper master were composed of some durable material, it would be in danger of being ruined, and in any event badly disfigured. If, on the other hand, the letters to be supplied were formed on markers, such as checkers, especially if the puzzle was being worked on a train, boat or airplane, the markers would be quickly displaced as a result of a change in motion of the transporting medium, or if played in a home, would not infrequently be accidentally displaced in jarring the support upon which the paper master were located.

In the case of a game such as a jigsaw puzzle, checkers or chess, which includes a multiple of movable pieces, all of the disadvantages above recited with regard to a cross-word puzzle having movable pieces would apply.

In view of the foregoing disadvantages, it is an object of the present invention to provide a game where the markers may be conveniently positioned in place, remain so positioned in place without fear of accidental displacement, and in turn, removed when desired, and such process repeated practically indefinitely.

These and other features, capabilities and advantages of the present invention will appear from the subjoined detail description of specific embodiments thereof illustrated in the accompanying drawings, in which

Fig. 1 is a plan view partly broken away of one embodiment showing a cross-word puzzle master and several markers fully attached, and a few markers partially attached thereto.

Fig. 2 is a fragmental section on the line 2—2 of Fig. 1.

Fig. 3 is a fragmental sectional view in perspective of a second embodiment.

Fig. 4 is a fragmental plan view of a third embodiment of the invention.

Fig. 5 is a fragmental section on the line 5—5 of Fig. 4.

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Fig. 6 is a marker in perspective detached, such as some of the markers illustrated in Fig. 1.

Fig. 7 is a marker detached in perspective, such as illustrated in Fig. 4.

Fig. 8 is a marker in perspective, such as illustrated in Fig. 6, but without a letter formed thereon.

Fig. 9 is a plan view of a marker polygonal in shape as distinguished from round.

Fig. 10 is a perspective, partly broken away, of a container for housing a cross-word puzzle game.

Fig. 11 is a perspective of a base and marker made according to one of the aforesaid embodiments in the process of being separated from one another.

Figs. 12 and 13 are fragmental details in section of a base marker illustrative of the attaching process.

In the embodiment shown in Figs. 1 and 2, there is illustrated a master or board 1, having formed thereon a series of horizontally extending demarcations 2 and a series of vertically extending demarcations 3 which intersect one another to form, in the present instance, fifty-six or more squares suitable for use for the plan of a cross-word puzzle. Obviously, the board 1, without departing from the general sprit of the invention, may be provided with intersecting demarcations 2 and 3 to form sixty-four squares suitable as well for a checker board or chess board. Furthermore, if the board 1 were used as the base for a jigsaw puzzle, the intersecting demarcations 2 and 3 may be ignored, without departing from the general spirit of this invention.

When the board is intended for use as the master or guide for a cross-word puzzle, then there are attached to the same a plurality of markers 4, such as illustrated in Fig. 8, without any letter formed thereon. These markers may be formed to produce any suitable design as is conventional with cross-word puzzles, leaving between the markers 4, unmarked areas to receive markers, such as the markers 5 having letters formed thereon to correspond to the word defining the definition in the conventional instructions.

One of the objects of the present invention is to provide a board 1 and markers 4 and 5 which will readily adhere to the board 1, and in turn be readily removable when desired without injuring or impairing either the board or the marker. It has been found, as an instance, that excellent results have been achieved when the board 1 has formed in each of the areas 6, defined by the in-

tersecting demarcations 2 and 3, a prepared surface area 7 composed of Celluloid, patent leather or a highly polished or naturally glossy coating of pyroxylin, linseed oil pyroxylin, polyvinyl chloride, polyvinyl formaldehyde and polyvinyl butyral, cellulose nitrate, ethyl cellulose, latex, a mixture composed of gum rubber and asphaltum, a mixture of rosin, demar or ester gum, and "dopes" consisting mainly of scrap Celluloid. Preferably these substances are generally combined with a plasticizer, such as mineral oil, linseed oil, castor oil and other vegetable oils. If the base 1 consists of a sheet of oilcloth, then the polished surface may be produced by a paint mixed with linseed oil. It is, of course, understood that there are various types of oilcloth and that the present invention may be carried out with any of these types. It has been found, as an instance, that when the prepared areas 7 are glossy oilcloth areas, that then the rear face or lower face 8 of the markers 4 and 5 may be the glossy surfaces of an oilcloth if the markers 4 and 5 are composed of oilcloth or of polyvinyl chloride or the like. In practice, it has been found that the contacting glossy surfaces of the prepared areas 7 and the lower faces 8 of the markers 4 and 5 need not be the glossy surfaces of like substances or like coatings. In the case of oilcloth or polyvinyl chloride, it has been found, however, that the best results have been achieved when the prepared surfaces 7 and the surfaces 8 and the markers 4 and 5 are both glossy. With the embodiment illustrated in Figs. 1, 2, 6 and 8, excellent results have been achieved when the prepared areas 7, 7 alone are glossy as distinguished from the surrounding portion of the areas 6 so that when the markers, such as the markers 4 and 5, are attached to the same, the edge of each marker 4, 5, will extend beyond the periphery of an area 7 to facilitate removing a marker 4 or 5 from an area 7 by merely inserting the finger nail of the player under the edge of a marker 4 or 5. As shown in Fig. 1, the markers 4 and 5 will so extend beyond the peripheries of the prepared areas 7 due to the fact that the diameter of each marker 4, 5 is slightly greater than the diameter of each prepared area 7.

Preferably in the interest of neatness, should the game be intended for use by children, the board 1 has guide demarcations 9 formed thereon of a distinctive color, the hatching in Fig. 1 of the demarcations 9 being indicative of the color red. When the demarcations 9 are so used, then preferably the markers 5 are provided with a demarcation 10 of a similar color which may aline with the demarcation 9 as shown in the upper right hand corner of Fig. 1.

If the markers 4, 5 and base 1 are composed of a flexible material as polyvinyl chloride, oil cloth or the like, then the markers 4 and 5 may even correspond in size to those of the prepared areas 7, since by flexing the base 1 the markers 4 and 5 can be readily removed should difficulty be encountered in directing the finger nail of the player under the edge of a marker 4 or 5 when attached to a base 1.

In the embodiment illustrated in Fig. 3, there is provided a rigid sheet or board 11 composed of cardboard, wood or the like, to which may be secured a layer 12 composed of patent leather, polyvinyl chloride, oilcloth or the like, and again only the prepared areas 13 be highly glossy to receive the glossy surfaces 8 of the markers 4, 5. In turn, the base, such as the base 14, may be entirely glossy or polished with transverse demarcations 15 and vertically extending demarcations 16 intersecting one another to form the areas 17. In this case, markers, such as the markers 18 illustrated in Fig. 7, are used to advantage where the rear face has a prepared area 19 smaller in size and dimension than the size of the marker 18 so that the prepared area, see Fig. 7, is spaced from the periphery 20 of the marker 18 with an intervening dull area or band 21. When a marker, such as the marker 18, is secured to one of the areas 17, then by virtue of the fact that the band 21 is not glossy or polished, it will not adhere to the glossy face of the area 17, and consequently the finger nail of the user can readily extend under the edge of the marker 18 to initiate the removal of the same.

Here too, in the interest of neatness when the game is intended for children, preferably the board 14 is provided with transversely extending guide lines 22 to register with guide lines on the markers 18, such as the guide line 24 on the marker 18 illustrated. The board 14 may, however, be composed of oilcloth or polyvinyl chloride, and have one face glossy or else the board may be composed of a cloth or paper and coated with pyroxylin or linseed pyroxylin, which when dried will produce a glossy surface suitable to cooperate with a marker having a similar glossy surface or to cooperate with the glossy surface of a marker composed of oilcloth or polyvinyl chloride. Fig. 5 is illustrative in cross-section of a sheet 25 of cardboard, cloth or the like having a coating 26 of polyvinyl chloride, pyroxylin, linseed pyroxylin, or the like.

Obviously the markers may assume any shape other than round, such for instance as polygonal or square as illustrated in Fig. 9, see the marker 27 there illustrated, without departing from the general spirit of the invention. When the marker is square or polygonal, see the marker 27 in Fig. 9, then obviously the sharp corners 28 may be used to advantage, since the finger nail of a player, it has been found, will more readily pass under a corner, such as a corner 28, to remove a marker when it is desired to remove the same, than when the finger nail of the user is forced against the intervening side of a marker 27 or even against the convex side of a marker, such as the marker 18, if the marker 18 was not provided with the dull band 21.

It is, of course, well known that a great many substances and materials, either as coatings or as sheets, have the property of attaching or affixing themselves to other sheets when pressure alone is exercised. Such substances and materials, either as coatings or sheets, may conveniently be identified as pressure sensitive attaching substances and materials. Whether this attaching phenomenon results solely from the vacuum created between two glossy or highly polished surfaces, or whether a plasticizer such as a vegetable oil, including castor oil, linseed oil, is primarily responsible for this attaching phenomenon is immaterial. The fact remains that if the base or guide board, such as the board 1, is a rigid non-flexible board such as glass with a highly polished surface, a cast sheet of Celluloid having a glossy or glazed surface, or whether the base is composed of a flexible material such as oilcloth having a glossy surface or polyvinyl chloride, known as "Vinylite," having a glossy or glazed surface produced by a heated highly polished cylinder, or when the glazed surface of a plastic, such as polyvinyl chloride is produced by the application of a high frequency current,

excellent results have been achieved when the markers, such as the markers 4, 5, are composed of oilcloth having a glazed or polished surface, of polyvinyl chloride, such as "Vinylite," having a glazed or glossy surface, or composed of a flexible or yieldable material having a plastic coating, such as polyvinyl chloride, cellulose acetate, pyroxylin and the like, which coatings in turn have a glossy or glazed surface, and the glazed or glossy faces of these markers are pressed into engagement with the glossy or glazed face of the base. When the base and markers are so prepared, in turn, it has been found that a plurality of the bases may be placed one on top of the other, and the markers may be placed one on top of the other when packing the game away in a box, such as the box 29 illustrated in Fig. 10, and the bases will ordinarily not adhere to one another, and in turn the markers will not adhere to one another unless the glossy or glazed faces are brought into engagement with one another and pressure exercised, and furthermore if the bases or markers did become attached to one another, they could be readily and expeditiously released by a slight counteracting force. One of the objects of the present invention is to take advantage of this physical phenomenon in the production of cross-word puzzles, jigsaw puzzles and games of chess and checkers so that the markers, when positioned on the base or support, may by pressure be caused to attach to one another and yet be readily removable upon the exercise of a slight force on the markers. Excellent results have been achieved when the base and markers are composed of oilcloth which is made of the ordinary cotton or burlap fabric and the glossy surface produced by a paint mixed with linseed oil or when the material is composed of a polyvinyl chloride composition including a plasticizer, such as castor oil, a pigment and a curing agent.

In Fig. 10, as an instance, the box 29 there illustrated is provided with intersecting partitions, such as the partitions 30 and 31 to form pockets. In turn, the front face of the partitions 30 may have marked thereon near the upper edge thereof the letters of the alphabet, or other like indices, to indicate the pockets for the markers having the respective letters or indices thereon. Preferably the partitions 30 and 31 do not extend to the upper edge of the walls 32 and 33 as shown in Fig. 10 so that boards or bases 34, such as the bases 1 of Fig. 1 may be placed one upon the other and then upon the upper edges of the partitions 30 and 31 inside of the walls 32 and 33 so that a cover 35 with a conventional flange 36 may be placed on the box 29 and properly enclose the boards 34 and markers 37. With this arrangement, the markers 37 will be anchored in their respective pockets by the boards 34 against displacement, and as aforesaid, due to the character of their glazed or glossy surfaces, the markers and boards will ordinarily not affix themselves to one another unless pressure is exercised and even then they can be quickly released from one another upon the exercise of a slight counteracting force.

To illustrate the process of attachment of the markers to the boards, see Figs. 12 and 13. In Fig. 12 the board 38 is composed of a transparent material such as cellulose acetate having a lower glossy face 39 and the marker 40 there illustrated has an upper glossy face. When the marker 40 with its glossy face is in engagement

with the glossy face 39 of the board 38, and the finger of the player is pressed either onto the board 38 or onto the marker 40, irregular spots will appear through the transparent sheet 38 similar to wet spots, spaced fron one another. If sufficient pressure were exercised, the entire face of the marker 40, where it engages the board 38, will appear as a wet spot. Thereupon, if a sheet of paper or thin film were introduced at one edge between the marker 40 and the board 38, the moisture-like spot will recede as the intervening sheet advances and the marker 40 dropped from the board 38 when the last moisture-like spot has disappeared. It has also been found that when a ring or coin having a raised periphery is pressed into engagement with the marker 40 as illustrated in Fig. 13, that then there will appear a circular moisture-like ring 41 conforming to the ring or raised periphery of the coin, and in turn, here too when a thin sheet of paper or the like is introduced between the marker 40 and the board 38, the moisture-like ring 41 will gradually recede.

When the base 1 and marker 5 are flexible, then as shown in Fig. 11, the marker 5 may be readily peeled off of the base 1 without exercising any particular lateral pressure on the marker 5, but merely by bending or flexing the marker 5 and base 1 relative to one another.

From the foregoing it will appear that, without departing from the spirit of the invention, the base or markers may be composed of polymerized vinyl chloride, polymerized vinyl acetate, co-polymerized polyvinyl alcohol and butylaldehyde, co-polymerized vinyl chloride and vinyl acetate, and co-polymerized vinyl chloride, vinyl acetate and maleic anhydride, especially when plasticized, cellulose nitrate such as cellulose esterified with nitric acid, preferably not nitrated beyond 11%, nitrocellulose associated with camphor to produce pyroxylin especially when plasticized with castor oil, tributyl phosphate and the like, cellulose acetate such as cellulose esterified with acetic acid anhydride, especially when plasticized with methyl-ethyl phthalate, and urea-formaldehyde resins or melamine-formaldehyde resins, especially when plasticized with oil modified alkyds. In turn, it is of course obvious, without departing from the spirit of the invention, that various plasticizers may be used for those already mentioned in the class, including polyalcohol derivatives, naphthalene derivatives, phosphoric acid derivatives, phthalic acid derivatives, saturated and unsaturated fatty acid derivatives, various other aliphatic or aromatic acid derivatives, sucrose compounds, urea compounds, and the like.

It has also been found that the base and markers need not be composed of like substances, with this exception, that the best results have been achieved when the cooperating surfaces are either highly polished or have a natural high gloss.

Without departing from the spirit of this invention, the base 1 and the markers 5 may also be formed of a plastic substance composed of acrylic or methacrylic resins, either combined with a plasticizer such as benzyl sebacate, butyl phthalate and the like, or prepared to the desired degree of softness by copolymerization of the proper monomers.

In co-pending applications, to wit, Ser. No. 740,099, filed April 8, 1947, in the name of Emil J. Heggedal, and Ser. No. 773,093, filed September 10, 1947, in the name of Benjamin H. Freed-

man, use is also made of the polished surfaces hereinabove referred to.

It is obvious that various changes and modifications may be made to the details of construction of both the board and markers without departing from the general spirit of the invention as set forth in the appended claims.

We claim:

1. The combination of two elements including a sheet base and sheet markers having dry glossy facial areas to permit intimate and air-free contact between the glossy areas of the markers and base upon the application of a slight pressure, one of said elements being flexible, and a dull or matted facial area formed on one of said elements between the outer edges of the markers and the glossy areas of the markers facing the opposing face of the other element, but not attachable to said opposing face to facilitate removing the markers from the base when a peeling force is exercised on the flexible element, said dull facial area being in the same plane with its adjacent glossy area.

2. A flexible sheet marker having a dry glossy facial area for a sheet base having a dry glossy facial area to permit intimate and air-free contact between the glossy facial area of the marker and the glossy facial area of the base upon the application of slight pressure, said marker having a dull matted facial area between the outer edge thereof and the outer edge of the glossy facial area thereof to oppose the glossy facial area of the base but not attachable to the base to facilitate engaging a part of the so liberated outer edge of the marker when exercising a peeling force on the marker to remove the same from the base, the dull facial area of the marker being in the same plane as its glossy facial area.

3. The combination of a sheet base having dry glossy facial areas spaced from one another and dull matted facial areas between said glossy facial areas and in the same plane with its adjacent glassy facial areas, and flexible sheet markers having dry glossy facial areas to permit intimate and air-free contact with the glossy facial areas of the base upon the application of a slight pressure with a part of the glossy facial areas of the markers overlapping, and not attachable to, a part of the dull matted facial area of the base to enable the part of the marker so liberated to be engaged when exercising a peeling force on the marker to remove the same from the base.

4. The combination set forth in claim 1 in which the two elements are composed of polyvinyl chloride compounds.

5. The combination set forth in claim 1 in which the markers are composed of a polyvinyl chloride compound.

6. The combination set forth in claim 2 in which the marker is flexible and composed of a polyvinyl chloride compound.

7. The combination set forth in claim 3 in which the markers are flexible and composed of a polyvinyl chloride compound.

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