Jan. 2, 1940. F. W. HUMPHNER 2,185,983

DECALCOMANIA

Original Filed Aug. 7, 1935 2 Sheets-Sheet 1

Fig. 1.

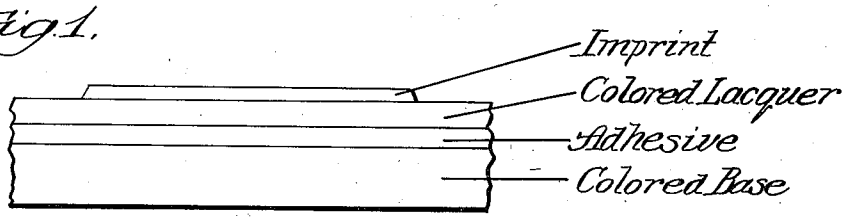


Fig. 2.

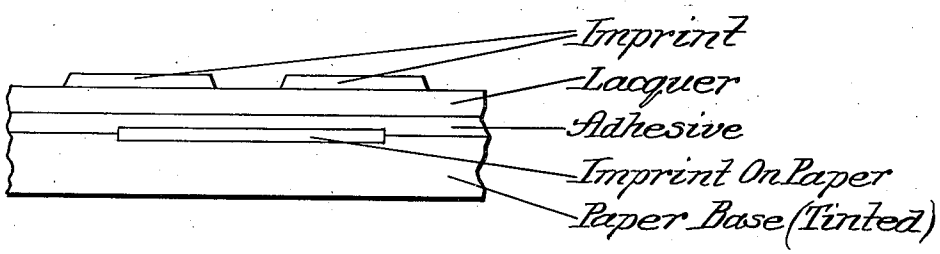


Fig. 3.

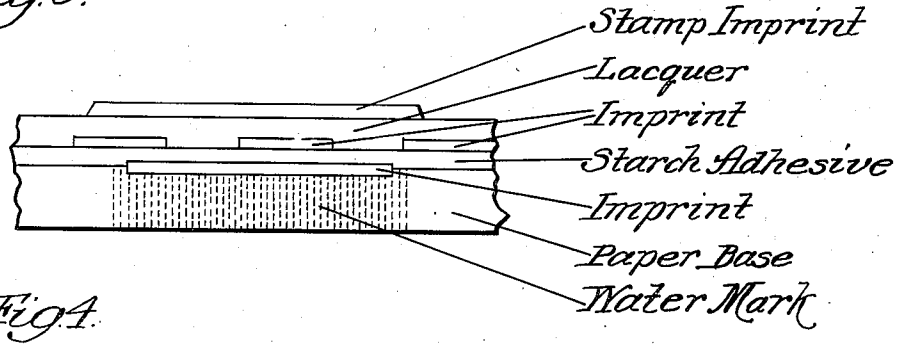
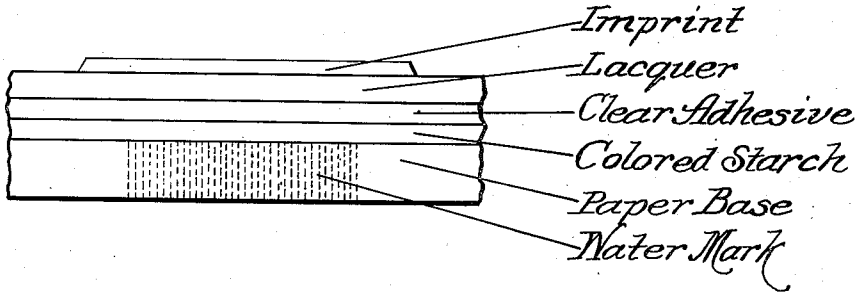


Fig. 4.



Inventor:
Ferdinand W. Humphner,
By Chritton, Wiles, Davies, Kirschbaum & Dawson,
Attys.

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Fig. 5.

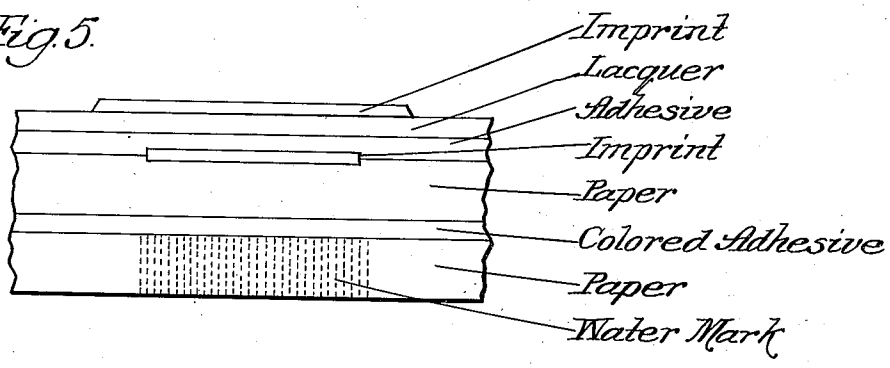


Fig. 6.

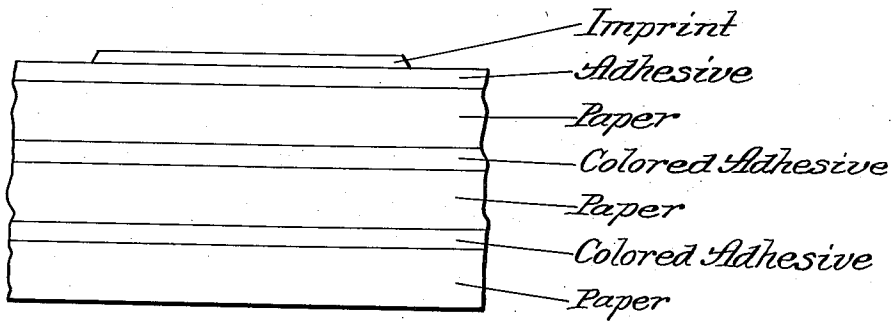


Fig. 7.

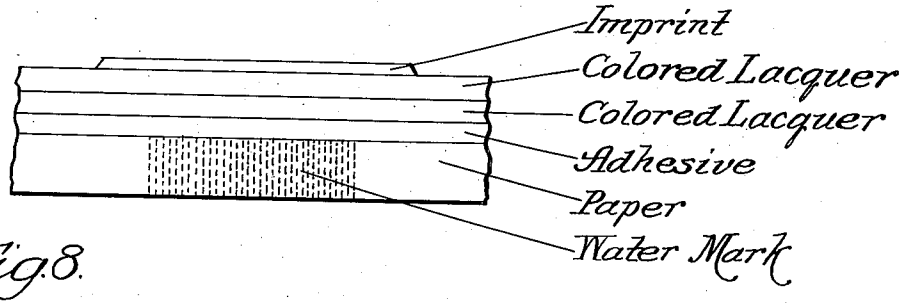
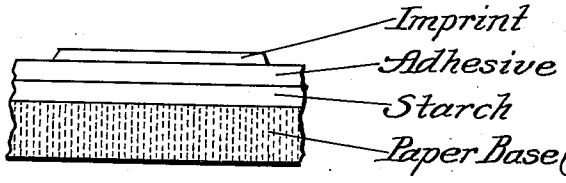


Fig. 8.



Inventor:
Ferdinand W. Humphner,
By Christon, Wiles, Davies, Kirschbaum & Dawson,
Attys.

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UNITED STATES PATENT OFFICE

2,185,983

DECALCOMANIA

Ferdinand W. Humphner, Oak Park, Ill., assignor to Mid-States Gummed Paper Co., a corporation of Delaware

Original application August 7, 1935, Serial No. 35,174. Divided and this application December 29, 1938, Serial No. 248,324

11 Claims. (Cl. 41—33)

This invention relates to a decalcomania and more particularly to such a product provided with means for indicating or proving its authenticity or origin.

This application constitutes a division of my co-pending application Serial No. 35,174, filed August 7, 1935, which matured into Patent No. 2,149,916, March 7, 1939, for Decalcomania.

In the use of decalcomania transfers in connection with revenue stamps and like uses, it has become important that each sheet of transfers be provided with means for readily and surely indicating its authenticity. An object of the present invention is to provide decalcomania products with means whereby the paper base is indicative of origin or authenticity, together with means for modifying the base in appearance when the same is wetted so as to further indicate its origin. A further object is to provide a decalcomania having a transfer body provided with means for proving its origin. A further object is to provide means whereby any part of the transfer or base or attachment means may serve as an indicator for the above purposes. Other specific objects and advantages will appear as the specification proceeds.

The invention is illustrated in preferred embodiments by the accompanying drawings, in which—

Figure 1 is a broken enlarged side view in elevation of a decalcomania embodying my invention; Fig. 2, a view similar to Fig. 1 but showing a modified form of the invention; Fig. 3, a view similar to Fig. 1 but showing a further modification; Fig. 4, a view similar to Fig. 1 showing a modification of the invention; Fig. 5, a view similar to Fig. 1 showing a modification of the invention; Fig. 6, a view similar to Fig. 1 illustrating a further modification of the invention; Fig. 7, a view similar to Fig. 1, showing a further modification of the invention; and Fig. 8, a view similar to Fig. 1, showing another modification of the invention.

In view of the fact that the paper base is of substantial size and can be handled cheaply and easily while at the same time becoming a waste product after the transfer has been removed, I have found it highly desirable to employ means in conjunction with the paper base for indicating its origin. For example, as will be set out more in detail hereafter, I may employ a colored or tinted paper base, a paper base imprinted on its top surface and normally concealed by a lacquer layer, a paper base having a water-mark extending therethrough below a transfer, a paper base having thereon or therein colored adhesive or water-soluble material which tends to color the base in a predetermined manner upon a wetting of the base, or I may employ a base consisting of two or more sheets of paper connected by a colored adhesive which colors the paper layers upon the wetting of the decalcomania.

As illustrated in Fig. 1, a tinted or colored base is employed, the color or tint being preferably of an unusual shade and one which cannot be duplicated by one not knowing the method of manufacture. Upon the tinted base is applied a water-soluble adhesive, and upon the adhesive is a tinted opaque lacquer film carrying the imprint. The tinted base itself serves as an identification of the product. Particularly, when the adhesive layer has been dissolved and the lacquer body removed, the color of the base becomes clearly visible and can be compared with an original to establish the identity. As long as the colored lacquer is employed in connection with the colored base, the color of the base is not distinct and the color may vary with the slight differences in depth of the colored lacquer. However, upon removal of the transfer, the color of the base is uniform and can be employed as a certain means for proving origin.

In the construction shown in Fig. 2, there is printed upon the tinted paper base, a character or other indicia which becomes visible after removal of the adhesive and lacquer thereabove. The water-soluble adhesive carries a lacquer layer which may be clear, colored, or opaque, and upon the lacquer are formed the usual imprints.

After the decalcomania body has been dipped in water to dissolve the adhesive, the paper base can be examined as to color and as to the imprinting thereon to determine its origin.

In the modification shown in Fig. 3, the paper base, which may be tinted if desired, is shown provided with a water mark. Also, imprinting is formed on the top of the paper and then covered by starch or other water-soluble adhesive. A lacquer body, which may be colored or opaque, is provided on its under side with imprinting and on its top side with the usual stamp or other imprint.

When the decalcomania is wetted and the lacquer body separated from the paper base and deposited upon a Cellophane or glass body, the imprints on the back of the lacquer layer become visible and serve to indicate the authenticity of the product. Also, the imprint on the paper base serves in conjunction with the water mark to indicate the origin of the paper.

In the modification shown in Figs. 4, 5 and 6, I employ a water-soluble coloring material which changes the color of the base to a predetermined color after the decalcomania has been wetted, thus indicating origin. In Fig. 4, the water-marked paper base is attached by colored starch or other suitable adhesive to a layer of clear adhesive and thereby to a layer of lacquer. When the decalcomania is wetted, the colored starch dissolves and enters the paper base, giving it a distinctive color.

In Fig. 5, there are two strips of paper connected by colored adhesive, the topmost paper carrying an identifying imprint thereon. Above the imprint is a layer of adhesive and a layer of lacquer, the lacquer carrying the usual imprint. Wetting of the body causes the colored adhesive between the two paper layers to change the color of both strips of paper, thus indicating the origin of the paper.

In the illustration in Fig. 6, there are three strips of paper, the outermost paper strips being preferably of good quality and the innermost paper strips being preferably of a cheaper grade. The three sheets are connected by layers of colored adhesive and the topmost paper strip carries adhesive and thereon an imprint. When the decalcomania is moistened, the colored adhesive layers enter the paper strips and give them a distinctive color.

In the modification shown in Fig. 7, the water-marked paper base carries a layer of adhesive and thereabove two differently colored layers with an imprint on the topmost lacquer film. The two layers of colored lacquer are preferably of different colors and so balanced in color as to give one shade when resting upon the adhesive layer and paper base, as shown in Fig. 7. However, when the two lacquer layers are separated from the paper base and applied to Cellophane or the like, the light rays passing through the two lacquer layers give them a different and distinctive shade. In this manner, the transfers are indicated as of a certain origin.

In the modification shown in Fig. 8, there is a paper base which is tinted pink. The base is covered with a starch layer and an adhesive layer over the starch. The imprint is on top of the adhesive. In this construction, the starch may be of color contrasting with the pink base.

While in the foregoing figures, I have shown certain arrangements therein with certain distinctive features in each, it will be understood that such features may be combined in a great many modifications which are not illustrated herein. For example, any of the products may be provided with a water mark or an imprint thereabove. Any of the modifications may be provided with imprint on the base of the lacquer film. Any of the modifications may be provided with tinted bases contrasting with tinted lacquer layers. Any of the modifications may be provided with various types of water-soluble colored adhesive for changing the color of the paper, etc. Any of the modifications may be provided with colored lacquer films combined and in many cases the lacquer films may be omitted and the imprint made directly on the adhesive layer.

In addition to the above, chemical indicators may be used in the paper adhesive, lacquer, starch coating, etc. By way of example, beta naphthol, dissolved in alcohol, may be used in the glue or starch coating, the lacquer or both. It may also be used in the paper base. In order to dissolve the beta naphthol, it is preferably first mixed with potassium hydroxide and then dissolved in alcohol.

In order to test the above fixed indicator in the adhesive or starch coating or paper, I use a small amount of a dye salt dissolved in alcohol. If the fixed indicator is added to the lacquer, I test it by adding thereto a small amount of dye salt dissolved in equal parts of alcohol and acetone. The acetone dissolves the lacquer and thus enables the dye salt to be brought into contact with the fixed indicator.

Instead of beta naphthol, naphthol A. S. may be used. There are a large number of indicators known to the trade which may be employed if desired.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom.

I claim:

1. A new article of manufacture for use as a decalcomania comprising a decalcomania body consisting of printing ink, and a layer of a material which will change color on the application of a suitable re-agent.

2. A decalcomania comprising a decalcomania transfer body and a layer of material which will change color on the application of a suitable re-agent.

3. A decalcomania paper having as a backing layer a sheet of paper, and a layer of adhesive coating thereon adapted to receive decalcomania printing, one of said layers including a material which will change color or the application of a suitable re-agent.

4. A new article of manufacture for use as a decalcomania comprising a decalcomania body consisting of printing ink, a layer of adhesive coating underlying said decalcomania body printed thereon, and a backing layer of decalcomania paper to which said adhesive coating is attached, one of said layers including a material which will change color on the application of a suitable re-agent.

5. A decalcomania product comprising: a paper base, a water-soluble coloring layer on said base, a transfer body over said coloring matter, and an imprint on said transfer body.

6. A decalcomania product comprising: a paper base, a colored adhesive on said base, a lacquer layer over said adhesive, and an imprint on said lacquer, said colored adhesive being water-soluble and tending to color said paper base when water is brought into contact with said base.

7. A decalcomania product comprising: a plurality of paper sheets, colored adhesive between said sheets, adhesive over one of said sheets, a transfer body over said last-mentioned adhesive and an imprint on said body, said colored adhesive being water-soluble and tending to color said paper sheets when the water is brought into contact with said sheets.

8. A decalcomania product comprising at least three paper sheets, the central sheet being of weaker grade, colored adhesive connecting said sheets, an adhesive over one of said sheets, and an imprint on said adhesive.

9. A decalcomania product comprising: a paper base, adhesive thereon, and at least two layers of differently colored lacquers on said adhesive, and an imprint on the topmost lacquer layer, said lacquer layers producing a composite color which is different when the layers are removed from the paper base than when they were attached to the paper base.

10. A decalcomania product comprising: a paper base, adhesive thereon, and decalcomania transfer on said adhesive, at least one of said parts being provided with a liquid-activatable chemical which becomes visible by changing the color of the part when said product is being applied to an object when liquid is employed to render said adhesive operative for securing the product to the object.

11. A decalcomania comprising: a paper base, a layer of adhesive thereon, a lacquer layer over said adhesive, and an imprinting layer thereon, at least one of said layers containing beta naphthol dissolved in alcohol and adapted to become visible upon treatment with a dye salt in alcohol.

FERDINAND W. HUMPHNER.