

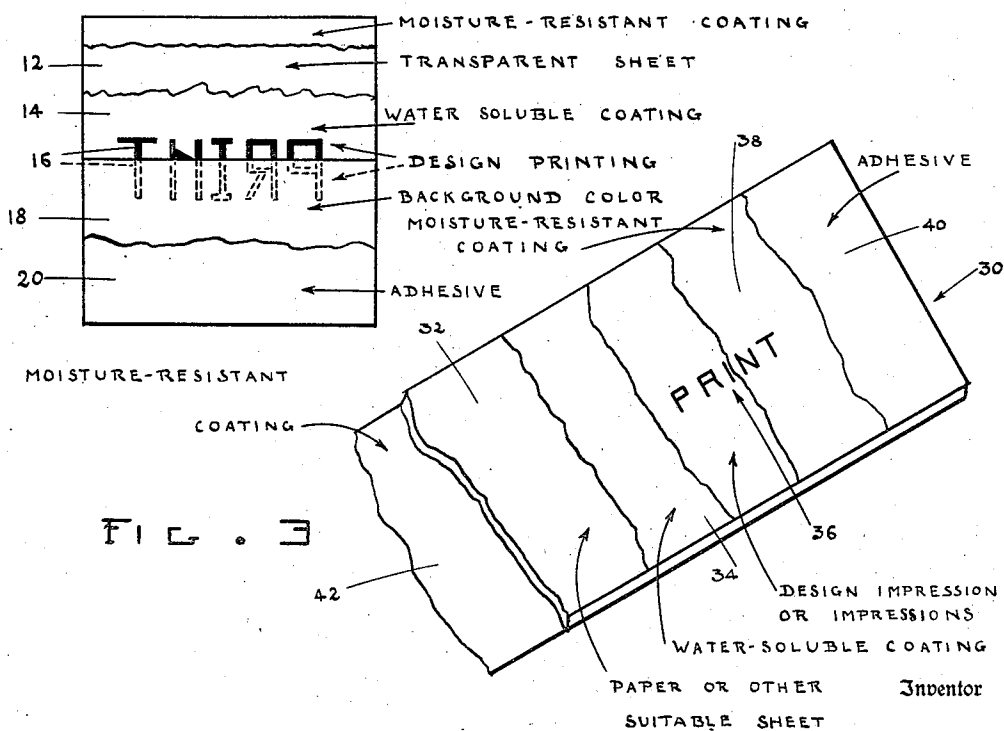
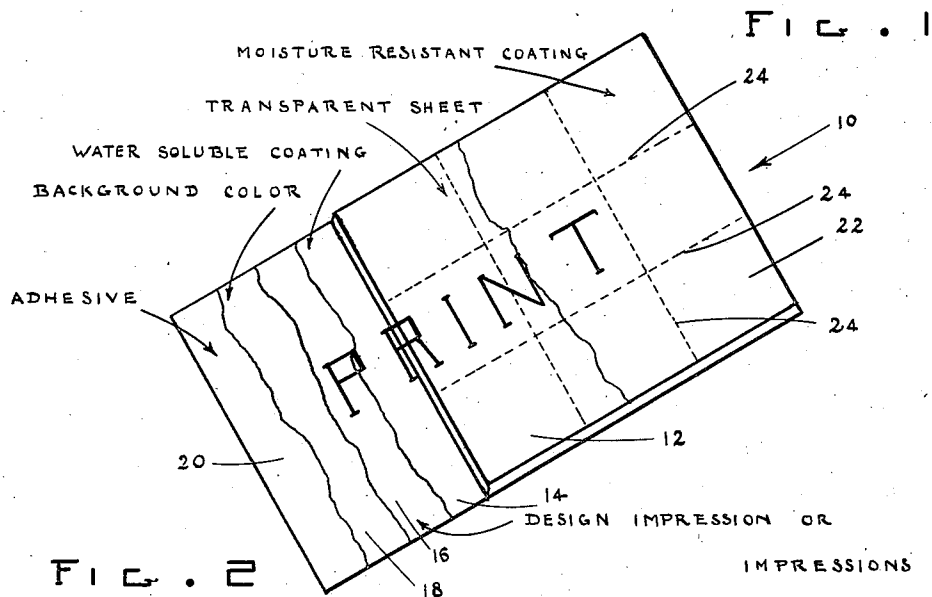
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STAMP

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STAMP

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This invention relates to stamps such as, for example, tax or other revenue stamps, license stamps or labels, stickers adapted to be applied to automobile windshields, etc.

The invention has for its prime object the provision of stamps which cannot be removed without impairment thereof after said stamps have once been used or applied to an article or object, thus to prevent reuse of the stamps, and further in accordance with this object of the invention the stamps are so constructed that they are protected against unimpaired removal thereof not only by the action of water or other liquids or fluids but also against unimpaired dry removal, i. e., peeling, splitting of the paper or other base or carrier, or removal with a razor blade, knife or other instrument, etc.

Another object of the invention is to provide stamps which are non-removable without impairment and thus non-reusable, regardless of the object, article or materials to which such stamps have once been applied. More specifically, in accordance with the present invention the stamps are non-reusable after they have once been applied to any material, for example, paper, wood, glass, cloth, cardboard, metal, etc.

A yet further object of the invention is generally to provide stamps of the type indicated which can be readily produced by practical and inexpensive operations.

The above objects of the invention and other objects, features and advantages of the stamps made in accordance therewith will be more fully understood from the following description considered with reference to the accompanying drawing, it being understood that said drawing is to be considered as illustrative of the invention but not in limitation thereof.

In the drawing:

Fig. 1 is a front perspective and more or less diagrammatic view of a stamp construction embodying the present invention;

Fig. 2 is a plan view, more or less diagrammatically, of the back of the stamp construction shown in Fig. 1;

Fig. 3 is a front perspective view, more or less diagrammatically, illustrating the present invention applied to a stamp of another type.

Referring more particularly to the drawing and first to the construction of the type of stamp illustrated in Figs. 1 and 2, there is shown in said figures a stamp 10 intended to be applied in a manner similar to a postage stamp, that is, in such manner that the stamp is not to be viewed through the object or material to

which it is applied. As here shown, said stamp comprises a transparent supporting sheet 12 which may be made of any suitable transparent sheet material, for example, Cellophane, glassine or other paper, such for example, any unsized paper made transparent with mineral oils or other non-volatile materials such as dibutyl-phthalate, cellulose acetate, nitro-cellulose, etc., it being understood that the specific materials mentioned are indicated merely as examples of suitable materials and not as exhaustive of the transparent sheet materials which are suitable for use in stamps of the present invention. The back of supporting sheet 12 has applied thereto a water soluble coating 14 preferably completely covering the back surface of supporting sheet 12. Said water soluble coating may consist of or comprise gelatin, dextrine, gum arabic, fish glue, animal glue, water soluble resins or waxes, or any other materials or substances which are adapted to constitute a water soluble film which is easily and quickly responsive to the action of water, it being understood that the substances specifically mentioned for providing the water soluble coating on the back of supporting sheet 12 are indicated as examples of suitable water soluble materials but are not to be considered exhaustive of suitable water soluble materials.

One or more printed design impressions are printed or applied to the water soluble coated surface of said supporting sheet 12. Said printing whether in one color or in multi-colors can be made in any suitable way and is to be understood as including all types of surface printing, such as typographic, lithographic, etc., as well as intaglio printing. The printing is indicated diagrammatically in Fig. 1 by the film 16 adjacent the water soluble coating 14 and by the legend "Print" in Fig. 2. Further, it will be noted by reference to Fig. 2 that the printing is done in reverse on the water soluble coated surface of supporting sheet 12 since said printing is observed from the front of the stamp through transparent sheet 12. It will be understood that the printing thus diagrammatically indicated may comprise designs as well as words or numbers or other symbols.

After the coated sheet 12 is printed, an all over background color 18 is applied, inasmuch as the supporting sheet 12 is transparent. The color material thus applied to provide a background can also be utilized, if desired, as an identifying medium where required, as for example, to constitute a denominational or identifying factor similar to that commonly utilized

in other types of stamps, it being understood that the color forming background 18 can be varied depending upon the denominational or other identifying characteristic desired.

After the background 18 is provided a coating 20 of adhesive is applied to the back of supporting sheet 12. The adhesive used for this purpose may be of any suitable adhesive compatible with the printing inks utilized in printing 16 and background color 18. This adhesive should also be of such character that it will lie properly and bond well with the printed surface to which it is applied and should contain substantially more solids and should be less quickly responsive to the action of water than water soluble coating 14. Such adhesives which are commonly known as litho-coating gum possess the outstanding characteristic that they are water sensitive rather than water soluble when subjected to the action of limited quantities of moisture. It is within the scope of the present invention to dispense with the application of the background color 18 and if desired to incorporate said background color in the adhesive 20. By incorporating pigments in the adhesive 20 and by proper control of the thickness of the coating of said adhesive applied to the supporting sheet 12, it is possible to prevent stamps applied to uncoated paper or other water permeable material from being attacked from water applied from the back, that is, through said paper or other water permeable material, for any attempt thus to remove the stamps for reuse thereof would result in impairment of the background, especially because of the previous application of moisture to the adhesive in initially affixing the stamp to said material.

If desired a moisture resistant coating 22 may be applied to the front of supporting sheet 12. This coating, which may consist of lacquer, varnish or any other suitable transparent water resistant material, provides protection for the stamps when the latter are used on any objects which might be subject to abnormal moisture conditions, for example, to such objects as beer barrels, bottles, etc. It is to be understood that said moisture resistant coating 22 is intended solely to provide protection under such conditions and that under ordinary conditions it is not necessary that sheet 12 be moisture proof or moisture resistant, since the construction of the stamp whereby it is rendered non-removable without impairment or destruction does not depend upon any water impervious characteristic of the stamp but rather on the fact that when water is utilized in attempting to remove the stamp it is impaired to such an extent that it cannot be used again.

While in describing the structure illustrated in Fig. 1 reference has been made to a stamp, it will be understood that said structure may be in the form of one stamp or in the form of a sheet comprising a plurality of stamps. This is indicated by the dotted lines 24 in Fig. 1 which represent lines of scoring or perforations to facilitate separation of stamps from other stamps in the sheet.

It is within the scope of the present invention to print a number or other design on the top face of supporting sheet 12, preferably beneath water resistant coating 22 when the stamp is provided with the latter. Said last mentioned print, however, should be supplementary to the main design impression or impressions which are applied, as described above, to the water soluble coated or back surface of supporting sheet 12.

It is sometimes necessary to provide stamps without adhesive applied thereto, that is, without adhesive corresponding to adhesive coating 20, since in some cases of utilizing stamps the adhesive is applied to the article to which the stamp is to be applied or to the stamp at the time of affixing the stamp to the article or material. Ordinarily the adhesive which is thus used is in the form of liquid sodium silicate, shellac, fish glue or the like. It is, therefore, within the scope of the present invention to omit the adhesive coating 20 from the stamp and when that is done there may be applied to the back of the stamp in the production thereof a coating of an alkali, alcohol, or acid-proof material to protect the design impressions or background on the stamp from impairment by the adhesive subsequently utilized in affixing the stamp. Among the resist materials suitable for thus protecting the stamp are films of rubber compounds, such as latex solutions, with or without vulcanizing materials, cyclotized or chlorinated rubber, vinylite, and similar film forming materials known to those skilled in the art.

In Fig. 3 of the drawing the invention is illustrated as applied to the type of stamp which is viewed through the material of the article or object to which it is applied. For example, various forms of licenses, labels and stickers which are issued by municipal or state governments or governmental agencies are intended to be applied to the inside surface of automobile windshields in such manner that they can be viewed through the glass of the windshield from the outside of the vehicle. The stamp 30 illustrated in Fig. 3 hereinafter to be further detailed in description is intended for such use or for any other use according to which the stamp is, as stated, to be viewed through the material to which the stamp is affixed. As here shown, stamp 30 comprises a supporting sheet 32 which may be formed of paper or any other suitable material and which unlike supporting sheet 12 of stamp 10 need not be transparent and can be opaque or translucent or transparent. On the front surface of supporting sheet 32 is placed the water soluble coating 34 which can be and preferably is of the same character as the water soluble coating 14 of stamp 10. The design impression or impressions are indicated diagrammatically at 36 and are applied in the same way as described above in reference to the application of design 16 on the water soluble coated side of supporting sheet 12 of stamp 10, except that in the case of stamp 30 it will be noted that the printing is not in reversed relation, as illustrated in Fig. 2, but is in positive relation since said printing is applied to the upper surface of supporting sheet 32 in position to be viewed through the material to which the stamp is affixed. A coating 38 of moisture resistant material is applied over the design printing 36, and over coating 38 the adhesive coating 40. It will be noted that the moisture resistant coating 38 takes the place of background color 18 and assists in preventing impairment of water soluble coating 34 at the time adhesive coating 40 is moistened for affixing the stamp. Said adhesive coating 38 can be formed of the materials mentioned above for providing the moisture resistant coating 22 on the supporting sheet 12 of stamp 10. Adhesive coating 40 is of the same type as the above described adhesive coating 20 carried by stamp 10 for affixing the same. It will be understood that if moisture should be applied to stamp 30 after

the same is affixed, in an attempt to remove said stamp, said moisture would impair water soluble coating 34 and the printing thereon to such an extent as to make it impossible to again use the stamp. A moisture resistant coating 42 is applied over the back of the stamp and this coating can be of the same character as the moisture resistant coating 22 applied to the front of stamp 10. Moisture resistant coating 42 is preferably utilized on stamp 30 since stamps of this character are ordinarily used on windshields or under similar conditions where the stamps are subjected to extreme atmospheric moisture.

Stamps embodying the present invention can be fully protected from counterfeiting or illegal reproduction in any of the ways utilized for protecting other type of stamps or financial paper. Without limiting the range of devices which may be used for these purposes, the following protective and identifying features are mentioned as suitable: (1) by the incorporation of fluorescent materials in the adhesive with which the stamps are provided for affixing the same, said fluorescent materials being identified by ultra-violet rays, (2) by use of chemical substances in the printing inks which, upon application of a suitable agent react and form a stain of a predetermined color, (3) by hand engravings, (4) by secret marks, etc. Examples of suitable fluorescent materials which can be incorporated in the adhesive for detecting counterfeiting or for determining the authenticity of the stamps are uranyl nitrate which, when subjected to the action of ultra-violet rays, yields a greenish yellow color, and sodium salicylate which, when subjected to the action of ultra-violet rays yields a bluish purple color. As examples of the chemicals which are suitable for detecting counterfeiting or for determining the authenticity of the stamps are sodium nitroprusside which, when acted upon by sodium sulphide, gives a reddish purple color, and phenol which, when subjected to the action of ferric chloride, gives a purple color. It is to be understood that the mention herein of specific substances or devices for determining whether or not the stamps are authentic does not exclude the use of other suitable substances or devices.

Thus, it is seen that the stamps described above are well adapted to accomplish the purposes and objects of the invention. It will be noted that an important feature of the stamps embodying the present invention resides in providing stamp 10 with a strong and easily handled transparent sheet and that in reference to stamps such as stamp 10 as well as to stamps such as stamp 30, the supporting sheet 12 in the case of stamp 10 and sheet 32 in the case of stamp 30, lies over rather than under the design impression or impressions when the stamps are affixed to the article, object or materials to which they are applied. Further, it will be observed that the design impression or impressions are connected to the supporting sheet by a water soluble adhesive layer which breaks down and causes the supporting sheet to separate from the design impression or impressions when any attempt is made to saturate the stamps after they have been applied. Further, it will be observed that the design impression or impressions are adhered directly to the objects or materials to which the stamps are affixed, there being no papers or other carrier or supporting sheet between the design and the object or materials to which the stamps are applied. It is to be understood, how-

ever, that while stamps produced in accordance with the present invention are of such nature that when said stamps are affixed to the articles or objects they consist of printed impression or impressions which are bonded by adhesive directly to the object and that the supporting sheet is in position over the impression rather than under it. Said stamps are quite different from and should not be confused with decalcomanias. In this connection it will be noted that in the stamps of the present invention there is no substantial ink body or film that the supporting sheet on which the stamp is printed remains a permanent part of the stamp during use and that removal or attempted removal of said supporting sheet would result in destruction of the stamps and that for affixing the stamp the adhesive surface only is moistened and the stamp is not completely saturated as in the case of decalcomanias where such saturation or thorough wetting is necessary in order to remove the paper base.

Stamps embodying the present invention can be utilized for numerous purposes. Among such uses are the application of the stamps as evidence of tax payment on beer barrels and cases, liquor bottles, securities, and in fact any object to which any ordinary paper stamp will adhere. Also, as described above, stamps such as stamps 30 of the present invention have uses which have been described above, namely on windshields of automobiles where the stamps are viewed from the front of the vehicle through the windshield. As it is impossible to remove the stamps without substantially rendering the same useless the stamps of the present invention are thus adapted to defeat the practice of washing stamps off, or otherwise removing them, and then re-gumming them and reusing or selling them illegally.

While I have shown and described the preferred embodiment of my invention it will be understood that the latter may be embodied otherwise than as herein specifically shown or described. Accordingly, I do not wish to be limited to the invention as herein specifically illustrated or described except to the extent which may be required by the scope of the appended claims. It will be further understood that as used in the claims the word "stamp" includes within the scope thereof, in addition to stamps proper such as tax or other revenue stamps, stickers, labels and all other devices intended to be affixed to various objects, article or materials.

Having thus described my invention what I claim and desire to secure by Letters Patent is:

1. A stamp comprising a supporting sheet having a surface thereof provided with a water soluble coating, a print on said coating, and an adhesive coating carried by said sheet at the coated and printed side thereof, a moisture resistant coating interposed between said print and said adhesive coating, said print being visible through said last mentioned coatings.

2. A stamp comprising a supporting sheet carrying at one side thereof a water soluble coating provided with matter printed thereon, said printed matter being of such character that it is materially impaired when said water soluble coating is subjected to the action of water, whereby to prevent reuse of the stamp, an adhesive coating on said side of the supporting sheet for affixing the stamp, and a moisture resistant coating interposed between said print and said adhesive coating.

3. A stamp comprising a supporting sheet car-

rying at one side thereof a water soluble coating provided with matter printed thereon, said printed matter being of such character that it is materially impaired when said water soluble coating is subjected to the action of water, whereby to prevent reuse of the stamp, and a moisture-resistant coating over said water soluble coating to prevent impairment of said printed matter when adhesive is applied for affixing the stamp.

4. A stamp comprising a supporting sheet carrying at one side thereof a water soluble coating provided with matter printed thereon, said print-

ed matter being of such character that it is materially impaired when said water soluble coating is subjected to the action of water, whereby to prevent reuse of the stamp, said supporting sheet being sufficiently transparent to permit said print to be viewed therethrough from the front of the stamp, and a protective coating over said water soluble coating to prevent impairment of said printed matter when adhesive is applied for affixing the stamp.

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