

June 25, 1940.

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2,205,956

STAMP AND METHOD OF FORMING

Filed June 26, 1937

Fig. 1.

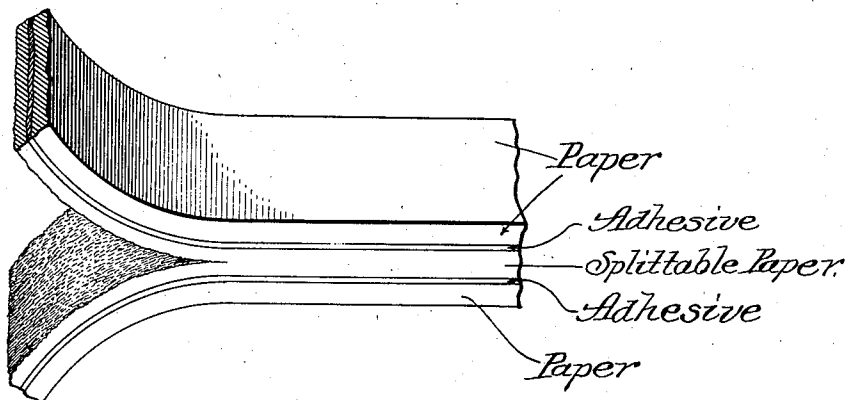


Fig. 2.

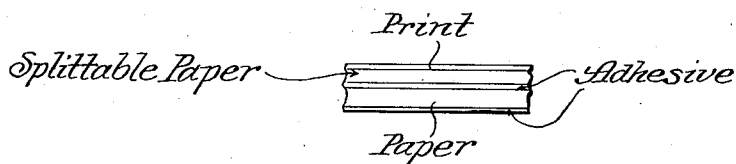


Fig. 3.

Fibers blown on

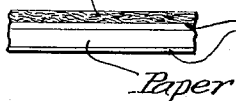


Fig. 4.

Powdered Clay

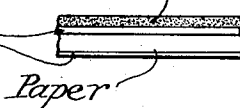


Fig. 5.

Clay and Starch mixture



Adhesive

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UNITED STATES PATENT OFFICE

2,205,956

STAMP AND METHOD OF FORMING

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Application June 26, 1937, Serial No. 150,632

10 Claims. (Cl. 40—2)

This invention relates to a gummed stamp and a method of forming the same. The stamp is particularly useful as a revenue stamp for liquor or tax purposes.

Tax stamps, as ordinarily constructed today, can be removed by soaking the container, upon which the stamp is applied, in water. The stamp is removed after the soaking operation and is then pasted on another container and thus re-used. Special adhesives have been employed requiring solvents and the like, which are not affected by water, but, due to their limited application, have not been found satisfactory.

An object of the present invention is to provide a stamp which causes a thin film bearing the imprint to soak loose from the main paper body of the stamp during the soaking operation, and because of the fragile character of the film, it cannot be reused. A further object is to provide a stamp which is composed of separable parts, the parts separating during the soaking operation and being of such character that they cannot be realigned for reuse. A further object is to provide a simple and effective method for producing a stamp with a non-reusable film that separates during the soaking operation. Other specific objects and advantages of the invention will appear as the specification proceeds.

The invention is described in a preferred embodiment, by the accompanying drawing, in which—

Fig. 1 is a perspective view of stamp-forming paper strips and illustrating the manner in which the thin film is formed; and Fig. 2, an edge view of a portion of the finished stamp formed as shown in Figure 1; Figs. 3, 4 and 5 are edge views of portions of stamps of modified constructions.

In the construction shown in Fig. 1, I combine with a central strip of paper, which is of a splittable character, two outer plies of paper, the outer plies serving as the paper base for the stamp. A water soluble adhesive is employed to connect the outer plies of paper with the central splittable strip. Preferably, the central strip of paper is of lighter weight and of a splittable type, so that, when divided, it forms a thin paper film. When all three sheets are combined, I preferably calendar the same in a moist state to remove the wrinkles and flatten out any irregularities. I then proceed to split the center sheet while still moist, dividing it in half so as to leave half of it on each outer ply. The outer surface of the split sheet will be found to be rough after splitting, and in order to provide a printable surface,

I calendar this outer surface. I have found that very good results are obtained by having the outer ply paper of a different color from the center sheet. For example, the colors may be complementary. However, if desired, opposite or different colors may be used.

After the splitting operation and the calendaring of the inner rough surfaces of the split sheet, I have two strips, each having an unsplit paper base bonded with water soluble adhesive to a thin paper film. The strips are then printed to form stamp imprints on the thin paper film portion, and cut to form separate stamps.

It will be understood that the lower surface of the paper base of the stamp, at a suitable stage during the operation, is provided with an adhesive by which the stamp may be applied to the bottle or other package.

If an attempt is made to remove the stamp by soaking, the water quickly penetrates the thin layer of pulp carrying the print, thus enabling it to soak loose before the main paper body of the stamp is released. It is substantially impossible to bring the layer of pulp back into alignment with the original stamp base, and even if this is done, the imprint is so broken and injured that such reuse can be readily detected.

I have discovered that by using the above-described method of splitting the central sheet, I can successively combine, with the two base sheets employed in the splitting operation, a thin split sheet portion so delicate that it cannot be rehandled effectively after it floats free in a soaking operation. In other words, by employing the splitting method, I can use a central sheet of paper which, though thin, can be readily and accurately handled, and then divided to one-half its thickness.

While I prefer to employ the splitting method, it will be understood that a heavy sheet may be combined with a light weight sheet and still utilize the present invention. I may vary the sizing in each of the sheets employed to a more or less degree. Also, the combination may be processed to reduce curl after forming the gummed, laminated sheets.

As a further method of preventing the reuse of gummed paper of this character, I have found that sheets of paper dampened may be combined by dusting between them a water soluble glue of well known composition provided with dye which will cause discoloring in the presence of water, which will be little affected at the time of combining, due to the lack of sufficient water; but later, when submerged in water for the purpose

of removing the label, the glue will discolor the label and thus indicate tampering. It will be further understood that other water soluble materials may be employed for the described purpose of discoloring the label after the soaking operation.

If desired, the splitable center sheet may be provided with colored fibres of different colors to further identify the paper.

The resultant tax stamp is manufactured in a simple and very expeditious manner and provides a two-part or laminated body which separates upon soaking. If desired, the stamp may afford one part so delicate and fragile that it cannot be handled after soaking, or at least cannot be reused without giving evidence of the removal. The process and product is immensely cheaper, in that it utilizes paper for forming the transfer.

In the modification shown in Fig. 3, I blow upon the adhesive or otherwise apply to it a layer of fibers which form the thin film for receiving the print. By this method, an extremely delicate film can be prepared which is nevertheless sufficiently tough to receive and support the print and to maintain it in good condition as long as the label or stamp is not immersed in water. When immersed or soaked in water, the adhesive dissolves and releases the fiber film, together with the print which it carries.

In the modification shown in Fig. 4, I apply to the adhesive a thin layer of powdered clay. The clay may be of any desired composition. I have found that china clay, fuller's earth, and kaolin satisfactory. A large variety of clays may obviously be used. The print is applied to the top of the powdered clay. I find that the powdered clay provides a smooth, even surface for receiving the print and that at the same time it separates easily from the body of the stamp or label when the stamp is immersed in water.

In the modification shown in Fig. 5, I have simply added starch to the clay so as to increase its unification. I find that a very satisfactory mixture is obtained when the clay is 80 per cent and the starch is 20 per cent of the whole. The starch may vary between 12 and 20 per cent and, if desired, even greater and less amounts may be used.

The stamp or label is, of course, useful not only for tax purposes, but also for license and other purposes. If desired, the label may be used as a vehicle tag or tax license sticker and for very many other purposes without departing from the spirit of my invention, and in the accompanying claims where the term "stamp" is used, it will be understood that this term is used in its broader sense to include stickers, labels, etc. for any and all of the purposes to which it is applicable.

It will be understood that the stamp or label or sticker may have adhesive for affixing it to

the container or package or wall, the adhesive being applied either to the face of the stamp where the imprint is or to the back of the stamp.

The foregoing detailed description has been given for clearness of understanding only, and no unnecessary limitations should be understood therefrom, but the appended claims should be construed as broadly as permissible, in view of the prior art.

I claim:

1. In a stamp structure of the character set forth, a paper base, water soluble adhesive thereon, and a thin paper print-receiving layer carried by said adhesive.

2. In a stamp structure of the character set forth, a paper base, water soluble adhesive thereon, and a thin paper print-receiving layer provided with an imprint carried by said adhesive.

3. In a stamp structure of the character set forth, a paper base, water soluble adhesive thereon, and a split paper print-receiving layer carried by said adhesive.

4. A stamp of the character set forth, comprising: a paper base, water soluble adhesive thereon, a split paper print-receiving layer carried by said adhesive, and an imprint on said print-receiving layer.

5. A stamp of the character set forth, comprising: a paper base, water soluble adhesive on each side of said base, a split paper print-receiving layer carried by the adhesive on one side of said base, and an imprint on said print-receiving layer.

6. A stamp of the character set forth, comprising: a paper base, water soluble adhesive on each side of said base, a split paper print-receiving layer carried by the adhesive on one side of said base, and an imprint on said print-receiving layer, said paper base and said paper transfer having complementary colors.

7. In a stamp structure of the character set forth, a paper base, water soluble adhesive thereon, a paper print-receiving layer carried by said adhesive, said paper base and said paper layer being of different colors, and an imprint on said transfer.

8. Non-reusable gummed paper of the character set forth, comprising a paper base, water soluble adhesive thereon, a split paper layer upon said water soluble adhesive, and adhesive on the opposite side of said paper base.

9. A device of the character set forth, comprising: a paper base, water soluble adhesive thereon, a fibrous mat carried by said adhesive, and an imprint on said mat.

10. A device of the character set forth, comprising: a paper base, water soluble adhesive on both sides thereof, fibers secured by said adhesive and providing a surface for receiving an imprint, and an imprint on said surface.

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