## UNITED STATES PATENT OFFICE

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BLEACHING AND STRIPPING MATERIAL AND PROCESS FOR MAKING SAME

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7 Claims. (Cl. 8-2)

This invention relates to bleaching materials. In my co-pending application, Serial No. 79,674, filed January 6th, 1926, I have described and claimed a dye material and process therefor in the form of a thin flexible sheet. This application is a division of my said co-pending application and relates to a bleaching or stripping material in the form of such thin sheet.

Among the objects of this invention is to provide a bleaching material adapted for household or like purposes in the form that will make same available at exceedingly low cost and in a handy and neat package which will embrace in one unit several bleaching materials functioning either by reduction or oxidation to accomplish the desired result.

My invention is applicable to the bleaching of goods or goods that has become faded through use as well as to the bleaching of dyed goods, so that they may be redyed so as to enable such materials to be dyed in several colors.

These and other objects I accomplish in a general way by providing a bleaching, stripping or decolorizing material in the form of a thin sheet which may be readily bound into a booklet form and such that when a portion thereof is placed in water or other suitable solvent or vehicle, the bleaching material readily dissolves and a bleaching bath thus becomes available for bleaching or oxidation or reduction as the case may be.

In carrying out my invention, I take a thin sheet of material such as paper, for example, and impregnate or coat it with a bleaching agent of oxidizing or reducing nature, preferably in such manner that while the bleaching agent will readily become dissolved when the treated paper is placed in the solvent, it will nevertheless be so impregnated in or fixed to the paper, that it will not separate itself upon or its properties affected by shaking, touch or friction by hand or otherwise.

The mixture is so prepared that it will not only become impregnated or adhere to the sheet, but will form a pliable mass thereon and will remain unaffected by various conditions or through handling and the like.

As an example, I have found the following process to give good results:—

I take the bleaching agent preferably in powdered form and mix it dry with an adhesive substance which is also in powder form. To it I add an adherent-carrier substance in powder form. These three ingredients are thoroughly mixed in a dry state and to this well mixed mass I add a softener till the mass becomes a stiff

paste. I then add a chemical that has a large tendency to reduce the surface tension of the mass, thus obtaining a mixture that is soft and the ingredients of which thoroughly incorporate among themselves to a degree much greater than would be the case for the same amount of liquid but in the absence of a chemical having such low surface tension properties.

The thoroughness of the mixture so obtained results not only from the mechanical mixing, but from the colloidal action of the low surface tension chemical, the ingredients becoming thereby easily and thoroughly adsorbed.

I then apply this mixture to the paper or other sheet material by hand or by means of a coating machine, and allow the sheets to dry by exposure to the ordinary atmosphere or pass the coated sheet over heated calender or cylinder to dry.

I have found the following to give good results for the various ingredients:—

For bleaching agents—sodium perborate, sodium percarbonate, sodium persulphate, magnesium peroxide, sodium hydrosulphite, barium peroxide, or hydrosulphites in combination with aldehydes, such as sulphoxyplates or like derivatives.

For adhesives—dextrine, gum arabic and the like.

For adherent-carriers—gum tragacanth, gum quince, and the like.

For softeners—glycerine, glucose, Turkey red oil, and the like.

For surface reduction—napthol sulphonic acid salts, Turkey red oil, or its saponified compounds.

As an example of proportions of the various ingredients, for making the impregnated or coated mixture, I have found the following to give good results:—

Bleaching agent	ght 60	
Adhesive	20	40
Carrier	7	
Softener	30	
Low surface tension chemical	22	

I have in the foregoing described several applications of my invention, but these as well as the particular material, the process and ingredients described are merely illustrative, and many variations will of course, occur to one skilled in the art all within the scope of my invention.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1, A decolorizer comprising a thin sheet carrying a mixture of a bleaching substance and a car- 55

rier and a substance which reduces the surface tension of the mixture.

- A decolorizing material comprising a mixture of a bleaching substance, a carrier, an adherent,
  and a substance which reduces the surface tension of the mixture.
- A decolorizing agent comprising a thin sheet carrying a coating of a mixture of a bleaching agent, a softener, carrier and an adhesive subtomatical stance.
- 4. A bleach material comprising a thin sheet carrying a coating of a mixture of a bleaching agent, a softener, a carrier, an adhesive substance and a chemical capable of reducing the surface tension of the mixture.
- 5. The process of making a decolorizing material comprising in mixing a bleaching agent with a carrier, a softener, an adhesive substance and a chemical capable of reducing the surface tension of the mixture and applying the mixture to a thin sheet.

6. As a new article of manufacture, a thin sheet carrying a bleaching agent having incorporated therewith a carrier and Turkey red oil.

7. As a new article of manufacture, a thin sheet 10 carrying a bleaching agent having incorporated therewith an adherent carrier and a salt of sulphonated naphthaline.

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