

UNITED STATES PATENT OFFICE

ARTHUR HERMAN HUISKEN, OF LA GRANGE, AND FRANK LOUIS ROMAN, OF CHICAGO, ILLINOIS, ASSIGNORS TO WESTERN ELECTRIC COMPANY, INCORPORATED, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

METHOD OF AND MEANS FOR RENDERING FIBROUS MATERIALS TRANSPARENT OR TRANSLUCENT

No Drawing.

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This invention relates to methods of and means for rendering fibrous materials transparent or translucent.

When it is desired to produce numerous copies of complicated drawings, such as those from which machines are constructed, it is sometimes advantageous to obtain a negative from the tracing by a photographic process. From such negatives, blueprints or other positive prints may be obtained in the usual manner when desired without subjecting the valuable cloth drawing to the wear encountered in the printing process. Frequently these negatives are produced upon a sensitized paper and from the resulting basic brown color they are called Van Dyke negatives. In order to produce a somewhat more sharply defined blueprint within a short printing period, in some instances, the negatives have been treated with oily solutions to render them more translucent or more nearly transparent.

Objects of the present invention are to provide an improved method of and an improved and non-inflammable composition of matter for transparentizing and preserving fibrous materials.

A composition of matter embodying the invention and which may be applied to the negatives in practicing the improved method may consist essentially of a solution of vegetable and mineral oils, such as cocoanut and paraffine oils, and a non-inflammable solvent such as carbon tetrachloride.

In making a preferred composition of matter embodying this invention, cocoanut oil, one part by volume, is placed in a suitable container and completely melted by heating it to a temperature not above 160° F. When completely melted, the cocoanut oil is poured into a barrel or other suitable mixing vessel and one part each, by volume, of light paraffine oil, benzine, and carbon tetrachloride are added slowly with constant mixing and in the order named. The resultant solution is then stirred, preferably by means of a mechanical stirrer, for a period not less than ten minutes; after which, it is ready for use.

The use of a non-inflammable solvent such as carbon tetrachloride renders the solution

non-inflammable which, from a safety standpoint, is a very desirable and sometimes an essential characteristic, since it eliminates the fire hazard while the solution is in storage or in use, particularly in close proximity to photographic or blue printing apparatus employing large printing lamps and heating appliances for drying the finished prints.

It has been found that a solution including cocoanut oil is very readily absorbed by fibrous material and dries very quickly, leaving a smooth and non-oily surface. Such a solution has also been found to have high preserving qualities, thereby lengthening the life of the material to which it is applied.

The preferred method of treating fibrous materials with the improved transparentizing solution consists of applying the solution to one side of the material by means of a brush or by passing the material over a roll partially submerged in the solution. Before using the material thus treated, sufficient time is allowed to cause the solution to be thoroughly absorbed by the material, thus rendering its surface very smooth and dry.

Although only one specific embodiment of the invention has been described herein, it should be understood that the invention is adapted to other applications and should be limited only by the general scope of the appended claims.

What is claimed is:

1. A transparentizing solution, consisting of cocoanut oil, a light paraffine oil, benzine, and carbon tetrachloride.

2. A transparentizing solution, consisting of equal parts by volume of cocoanut oil, light paraffine oil, benzine, and carbon tetrachloride.

In witness whereof, we hereunto subscribe our names this 31st day of March, A. D. 1925.

ARTHUR HERMAN HUISKEN.
FRANK LOUIS ROMAN.