

# UNITED STATES PATENT OFFICE.

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## COMPOSITION FOR PREVENTING SET-OFFS IN PRINTING.

No. 825,526.

Specification of Letters Patent.

Patented July 10, 1906.

Application filed August 7, 1905. Serial No. 273,137.

*To all whom it may concern:*

Be it known that we, GEORGE STEELE DUNCAN and GEORGE HENRY POTTS, subjects of the King of the United Kingdom of Great Britain and Ireland, residing at Edinburgh, Scotland, have invented certain new and useful Improvements in Compositions for Preventing Set-Offs in Printing, of which the following is a specification.

In the specification of application Serial No. 259,374 we have described a liquid composition to be used for damping the "set-off" rollers in printing-machines to prevent set-off or transfer of ink from one sheet to another or from one side to the reverse side of a sheet in printing.

Our present invention has for its object the provision of a liquid composition to be used in the same manner as the liquid composition the subject of the said application, but differing therefrom in its composition and possessing especial advantages if some or all of the work is to be done on colored or much-loaded paper.

The constituents of the liquid composition the subject of our present invention are palm-oil, cocoanut-oil, lard-oil, cotton-seed oil, soap, preferably brown Windsor, printers, turpentine, naphtha as ordinarily used by printers, and methylated spirits of wine. The cotton-seed oil may be omitted, but in such event the quantity of lard-oil or cocoanut-oil, or of both, should be increased proportionately. The best proportions are as follows: about equal volumes of each of the oils, the palm-oil and cocoanut-oil having been melted by the application of heat before their volumes are measured out. Equal volumes of the turpentine and naphtha, the volume of each of these being nearly double that of the palm-oil. The volume of the methylated spirits is about three-quarters that of the palm-oil. The weight of the soap should be about one pound for every two quarts of palm-oil. A small quantity of sperm or light colza oil, or of both, not exceeding in volume half the volume of the

palm-oil, may be advantageously added to assist admixture. Although we find it preferable to use both cocoanut-oil and lard-oil in making the liquid composition the subject of our present invention, one may be partly or wholly replaced by the other.

Lard-oil is the equivalent of cocoanut-oil, and where the latter is mentioned herein it is to be understood that either lard-oil or a mixture of lard and cocoanut oils may be used. Similarly, light colza-oil is the equivalent of sperm-oil and may replace the latter either in whole or in part without departing from our invention, which contemplates the employment of equivalents of the ingredients used.

As it is desirable to apply heat to effect as good an admixture of the soap as possible, and accordingly to defer adding the naphtha until after such heating, we have found it preferable, especially if the heating is done, for example, over an open fire, to employ the method described in the specification of the said application in effecting the mixture of the components of the liquid composition the subject of our present invention. Instead of naphtha, benzin may be used; but naphtha is preferable.

Having now described our invention, what we claim, and desire to secure by Letters Patent of the United States, is—

1. A composition for preventing set-off consisting in a mixture of palm-oil, cocoanut-oil, cotton-seed oil, soap, turpentine, naphtha and methylated spirits.

2. A composition for preventing set-off consisting in a mixture of palm-oil, cocoanut-oil, cotton-seed oil, sperm-oil, soap, turpentine, naphtha and methylated spirits.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

GEORGE STEELE DUNCAN.

GEORGE HENRY POTTS.

Witnesses:

MARY McCREDIE,

WALLACE CRANSTON FAIRWEATHER.