UNITED STATES PATENT OFFICE.

GEORGE STEELE DUNCAN AND GEORGE HENRY POTTS, OF EDINBURGH, SCOTLAND, ASSIGNORS TO AMERICAN OFFSET COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

COMPOSITION FOR PREVENTING SET-OFFS IN PRINTING.

No. 825,527. Specification of Letters Patent. Patented July 10, 1906.

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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, and residents of Edinburgh, Scotland, have invented a certain new and useful Improvement in Compositions for Preventing Set-Offs in Printing, of which the following is a specification.

This invention has for its object the provision of an improved composition 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, the said composition being particularly applicable for use in rotary printing-presses, rotary presses for magazine-printing, perfecting-machines, and flat-bed single-cylinder machines.

This composition in its preferred embodiment consists of a pomade or paste for use upon set-off rollers of printing-presses, particularly presses of the character above referred to.

The composition comprises in its preferred embodiment soap, preferably soft soap, a non-volatile oil, preferably a non-drying oil, such as olive-oil, and a resinous substance, preferably turpentine. The proportions in which the ingredients are preferably mixed are equal volumes of olive-oil and turpentine and about two pints of soft soap for every one-half pint of olive-oil employed. A useful pomade can be made in which the proportions of the materials vary widely from those stated. In fact, good results are obtained when three times as much olive-oil as turpentine is employed; but it is ordinarily advisable not to exceed this limit. One of the effects of varying the proportions of the ingredients is to alter the consistency of the paste or pomade so that for certain uses it is advisable to vary the proportions widely from those above given, although for general use such proportions are, as stated, ordinarily preferred.

If the soap employed contains a considerable excess of alkali, it is advantageous to add some lard. With some very alkaline soaps the quantity of lard which can be advantageously added may be one-sixth of the weight of the soap. The quantity of lard, however, to be added, depends upon the excess of alkali present in the soap. Should the excess of alkali be very large, the quantity of lard may be increased proportionately.

In preparing the pomade the ingredients are well mixed, preferably with the application of a gentle heat for a short time. The mixture is then allowed to cool, and the pomade or paste is ready for use.

The pomade or paste is preferably applied when the machine is ready to start printing. It is better to apply the paste before starting up the machine than while it is running. The composition is applied by means of a clean rag saturated with turpentine, naphtha, or other like solvent, which is dipped in the pomade or paste and the rollers well rubbed with it. The material may also be applied by hand. The rollers are subsequently cleaned with a dry rag.

If the machine is to print superfine calendered paper or soft-sized paper, it is advisable to use the pomade or paste sparingly. If the machine is one which registers badly, the pomade should be used very sparingly.

While the ingredients and proportions above given are those which are preferred, it is to be understood that this invention is not limited thereto, as the proportions may be varied within wide limits and certain of the ingredients omitted.

The invention is to be considered as broadly embracing the features of novelty in a composition for the purpose specified as defined within the scope of the appended claims.

Having thus 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, comprising a liquid non-volatile oil and soap.

2. A composition for preventing set-off, comprising a liquid non-volatile oil and soft soap.

3. A composition for preventing set-off, comprising olive-oil and soap.

4. A composition for preventing set-off, comprising oil, soap and a resinous substance.

5. A composition for preventing set-off, comprising oil, soap, and turpentine.

6. A composition for preventing set-off, comprising a non-volatile oil, soap, and turpentine.

7. A composition for preventing set-off, comprising a non-volatile oil, soft soap, and turpentine.

8. A composition for preventing set-off, comprising olive-oil, soft soap, and turpentine.

9. A composition for preventing set-off, comprising a non-volatile oil, soap, a resinous substance, and a fat.

10. A composition for preventing set-off comprising a non-volatile oil, soap, a resinous substance, and lard.

11. A composition for preventing set-off comprising olive-oil, soft soap, turpentine, and lard, substantially in the proportions specified.

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:
WALLACE FAIRWEATHER,
JNO. ARMSTRONG, Junr.