

UNITED STATES PATENT OFFICE.

JOCELYN FIELD THORPE, OF MANCHESTER, ENGLAND, ASSIGNOR TO
WM. BRIGGS & COMPANY, LIMITED, OF MANCHESTER, ENGLAND.

TRANSFER-PRINTING.

No. 831,582.

Specification of Letters Patent.

Patented Sept. 25, 1906.

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To all whom it may concern:

Be it known that I, JOCELYN FIELD THORPE, a subject of the King of Great Britain and Ireland, residing at the Victoria University, Manchester, in the county of Lancaster, England, have invented new and useful Improvements Relating to Transfer-Printing, of which the following is a specification.

My invention relates to transfer-printing, and has for its object to obtain an indelible mark on cotton, linen, silk, and other fabrics by means of a printed transfer.

In carrying my invention into effect in one convenient manner I form a mixture of the indigo salt T, ortho-nitro-phenyl-lactomethyl-ketone with resin and beeswax in the following proportions, by weight: resin, thirty-five parts; indigo salt T, ten parts; beeswax, four parts. A little coloring or sighting material may be added to give the design prominence. This, however, is not necessary, although desirable.

The mixture may be reduced to a suitable or convenient paste either by means of heat (in which case the printing is done hot) or by some suitable solvent, such as turpentine, an alcohol, or acetone, (in which case the printing is done cold.) With this mixture I print the letters, words, or designs onto tissue-paper. The tissue-paper is then placed face downward on the fabric to be marked and is transferred to the fabric to be marked by means of a hot iron according to the usual method adopted for transfers. The mark or transfer thus produced is then lightly brushed with a developing solution consisting of an aqueous solution of caustic soda of about thirty degrees Twaddell or fifteen per cent., by weight. The resin, which in the usual course is insoluble in water, is by the action of the alkali converted into resin soap, which is soluble in cold water. At the same time the alkali converts the indigo salt T into indigo, and hence causes it to be fixed indelibly on and in the fibers of the fabric.

Transfers produced by the method described can be used as described on fabrics composed of cotton, linen, jute, and other vegetable or non-nitrogenous fibers and also on fabrics composed of silk fibers.

It is intended that as a rule the printing onto the tissue-paper be done on a large scale in a factory or factories and that the papers with the designs be then sold and the transferring of the designs, letters, or words and the development of them by the alkali be done by the purchasers.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The process of transfer-printing consisting in applying the required design to a supporting medium by a mixture of indigo salt T and a carrying medium which is transferred to the fabric by the action of heat, and subsequently by the addition of an alkaline solution converting the carrying medium into soap to permit of its ready removal and converting the indigo salt T into indigo and leaving it indelibly printed on and in the fibers of the fabric, substantially as described.

2. The herein-described process of transfer-printing, consisting in printing onto a suitable supporting medium by means of a mixture of indigo salt T with resin, and then transferring the design to the fabric to be marked and by means of an alkaline solution converting the resin into soap and converting the indigo salt T into indigo, thus leaving the design indelibly printed in indigo on and in the fibers of the fabric, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOCELYN FIELD THORPE.

Witnesses:

ROBERT MORRISON NEILSON,
VIVIAN ARTHUR HUGHES.