

UNITED STATES PATENT OFFICE.

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METHOD OF PRINTING IN COLORS.

SPECIFICATION forming part of Letters Patent No. 366,751, dated July 19, 1887.

Application filed January 20, 1887. Serial No. 221,969. (No specimens.)

To all whom it may concern:

Be it known that I, THOMAS D. WORRALL, a citizen of the United States, residing at Lynn, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Methods of Printing in Colors, for which I desire to obtain Letters Patent, and of which the following is a specification.

My invention relates to improvements in methods of color-printing, as hereinafter described and claimed.

In carrying out my invention I first take any desired suitable pigments, preferably aniline, and dissolve them in any suitable solvent—such as water, alcohol, glycerine, oil, or any desirable mixture of either—and so prepared that the colors will not too readily set. I then take sheets or rolls of tissue-paper, silk, or other suitable fabric and saturate them with the prepared pigment, different parts of any given sheet being saturated with different colors, and the pigment being applied in strips, spots, or according to any desired design. The paper will then usually need to be dried or partially dried to enable it to be handled and prevent smearing, and insure a clean sharp impression.

The pigment may be applied by means of ordinary printing-rollers, such as used in calico-printing; or the paper may be impregnated by means of pens, pencils, or brushes, such as used in preparing ruled paper; or, instead of a single sheet saturated with more than one color, I may take tissue-paper or fabric and first impregnate it with one color, using it as a base, and then lay over or secure to it strips or designs of other paper or silk each saturated with different-colored pigment, the whole being then dried as far as necessary, or the many-colored sheets may be made of pieces connected at their edges, either before or after saturation with pigment, and then dried.

In carrying out my method of printing in colors I take one of the colored sheets prepared in either of the ways indicated above and with

any desired design and place it in contact with the paper to be printed and between said print-paper and the type, electrotpe, or wood-cut, and then pass the whole under the cylinder or platen of the press, as in ordinary printing, and the impression in two or more colors in any desired design is thus made without the use of the ordinary inking process; or I first roll the face of the type with ink, so as to make a base-color, and then lay over it, on the face of the type, colored strips, and thus print in any desired number of colors at one impression.

I do not herein claim the many-colored paper, the same forming the subject-matter of another application filed contemporaneously with this; but

What I do claim is—

1. The method of color-printing, which consists in interposing between the types and the paper to be printed a sheet of paper, silk, or other fabric prepared with different-colored pigments or inks and then making the impression.

2. The method of printing in colors, which consists in preparing a sheet with pigments of different colors, drying the sheets, interposing the same between the type and the paper to be printed, and then making the impression.

3. The improvement in color-printing, which consists in preparing a sheet with pigments of different colors, interposing the same between the types and the paper to be printed, and making the impression.

4. The improvement in color-printing, which consists in first rolling the face of the type with ink, in the usual manner of printing, and then placing thereon strips of paper or other fabric saturated in different-colored pigments, so as to print in two or more colors at one and the same impression.

THOMAS D. WORRALL.

Witnesses:

MELVILLE P. NICKERSON,
JAMES B. SILSBEE.