

UNITED STATES PATENT OFFICE.

WILLIAM SCHUMACHER, OF BROOKLYN, NEW YORK, ASSIGNOR OF ONE-HALF TO LOUIS RAHMER, OF SAME PLACE.

PROCESS OF PRINTING IN COLORS.

SPECIFICATION forming part of Letters Patent No. 447,087, dated February 24, 1891.

Application filed September 8, 1890. Serial No. 364,334. (No specimens.)

To all whom it may concern:

Be it known that I, WILLIAM SCHUMACHER, of Brooklyn, in the county of Kings and State of New York, a citizen of the United States, have invented certain new and useful Improvements in Processes of Printing in Colors, of which the following is a specification.

This invention relates to an improved process of printing in colors in such a manner that the well-known character of a water-color painting is closely imitated, while ordinary lithographic stones or other printing-surfaces can be employed for this purpose; and the invention consists of a process of printing in colors by the following successive steps: first, producing the different tints by means of a brush and lithographic ink on a hard unimpressible transfer-sheet of suitable material; secondly, transferring said wash-tints by transfer-sheets to lithographic stones or other printing-surface having grained surfaces, and, lastly, printing from said stones in different colors, so as to reproduce the original painting.

In carrying out my invention a number of thin transfer-sheets of a suitable hard unimpressible substance—such as celluloid or other material—are either placed one after the other over the water-color or other painting or on the impression used as a key for said painting that is to be reproduced in color, care being taken that the proper register of the transfer-sheets with the original painting is retained. A transfer-sheet is used for each color of the original painting, while the transfer-sheet is placed in position over the original painting or on the key of said painting, the special tint being produced on the same by means of a brush or lithographic ink or crayon, or by means of a rub-tint, or in any other suitable manner, so that a so-called “wash-tint” is produced, the different portions of which are graduated in proportion to the depth of color in the original painting. When opaque transfer-sheets are used, it is necessary to transfer the outlines of the different tints on said sheet by any of the methods known to lithographers—such

as, for instance, by making a key from the original, which is offset on the transfer-sheet on which the wash-tints are produced by freely following the original, which is placed before the eyes of the artist. When as many transfer-sheets as there are colors in the original painting are thus produced, the wash-tints in the same are transferred by the sheets to as many separate lithographic stones, zinc plates, or other printing-surfaces, which are provided with a suitable grain preparatory to receiving the wash-tints from the transfer-sheets. After the transfer of the wash-tints is made the printing-surfaces are coated with a layer of a solution of gum, and after drying washed off, the printing-surfaces being then rolled up in the usual manner with transfer-ink. The stones are next prepared with gum and acid, like a crayon drawing. The wash-tints are thereby broken up into small dots on the points of the raised portion of the grain, so that a practical printing-plate for the lithographic press, or for the relief-printing press, after a relief-etching of the grain-plate is made, is obtained. The tints on the printing-surfaces are an exact reproduction of the wash-tints on the transfer-sheets, being denser at the heavier parts and thinner at the lighter parts. The different colors are then printed in register from the printing-surfaces until a picture is obtained, in which the characteristic features and tints of the original painting are faithfully reproduced.

In addition to the wash-tints employed, graining or stipple effects may be added to the transfer-sheets and transferred with the wash-tints to the printing-surfaces, or they may be produced on said printing-surfaces in the usual manner.

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

The process herein described of printing in colors, which consists in reproducing the different colors of the picture in wash-tints by means of lithographic ink or crayon on the surface of as many separate transfer-sheets as there are colors to be printed, then

transferring the several wash-tints from the transfer-sheets to separate printing stones or plates having grained surfaces, and then printing the different colors from said printing-surfaces in register to correspond with the colors of the original picture, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

WILLIAM SCHUMACHER.

Witnesses:

W. REIMHERR,
PAUL GOEPEL.