(No Model.)

W. SCHUMACHER.

DIAPHANOUS PICTURE.

No. 594,655. Patented Nov. 30, 1897.

Fig. 3.



Fig. 2.

Fig. 1.



WITNESSES:
Geo. C. Jaekel.
Carl Kafoe.

INVENTOR
William Schumacher
BY
Goepel & Pregener,
ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM SCHUMACHER, OF BOSTON, MASSACHUSETTS.

DIAPHANOUS PICTURE.

SPECIFICATION forming part of Letters Patent No. 594,655, dated November 30, 1897.

Application filed May 26, 1897. Serial No. 638,214. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM SCHUMACHER, a citizen of the United States, residing in the city of Boston, in the county of Suffolk, in the State of Massachusetts, have invented certain new and useful Improvements in Diaphanous Pictures, of which the following is a specification.

This invention relates to diaphanous pictures which are made in suitable colors on paper, textile fabrics, and other substances, so that a clear and uniform appearance of the picture from either side of the sheet is produced.

The invention consists of a diaphanous picture printed by print and counter-print in register on both sides of the sheet and having similar varnish impressions applied to said colors in register with the same and with each other, as will be hereinafter fully described and then claimed.

In the accompanying drawings, Figure 1 represents a front view; Fig. 2, a vertical transverse section of my improved diaphanous pictures, and Fig. 3 a rear view.

Similar letters of reference indicate corresponding parts.

In carrying out my improved invention a sheet of paper, fabric, or other material to receive the impressions in colors is fed to a lithographic or other printing press, which is provided with a backer of rubber or other elastic material. This backer is held in the well-known manner in fixed position, so that it will return exactly to the same position at every revolution of the press. The printing block or plate is now charged with ink in the usual manner and an impression delivered directly on the backer. After this the printing block or plate is charged with ink again and the sheet fed into the press, so that the colors are applied simultaneously in print and counter-print to both sides of the sheet, the sheet receiving simultaneously the impressions from the printing block or plate and from the backer. The impressions made by print and counter-print are in perfect register with each other, which is accomplished as the backer is firmly held in its proper position. The entire edition to be printed is thus run through the printing-press and two impressions given to the sheet on one side by the printing block or plate and on the other side by the backer. When the picture is to have a number of colors, one color after the other is printed in the same manner. After the colors are printed and properly registered at the opposite sides of the sheet the picture is made transparent or diaphanous by supplying varnish instead of ink to both sides of the sheet in the same manner as before described with colors, the varnish rendering the parts of the picture to which it is applied at the front and back of the sheet transparent, while the remaining part of the sheet retains its semiopaque or opaque ground. The varnish prints and reprints can also be made before the colors are printed. Any desired transparent effect can be produced by making the plate instead of solid in tint effects in the same manner as they are produced on stone or other printing-plates. Besides whenever the colored picture is printed opaque the first or final application of varnish will produce half or quarter transparent effects, according to the nature of the plate made for this purpose.

I do not claim the printing of colored pictures in register with each other at both sides of the sheet, as this has been done heretofore, but I desire to claim the producing of the diaphanous effect of such a picture by applying an impression of varnish by print and counter-print on the sheet before or after it is printed on both sides, so as to produce a transparent or diaphanous picture.

When a picture in uniform color and tint is required, a solid plate is used and full transparency produced by the varnish impressions. Whenever a half or quarter is to be produced, the corresponding tints are produced on the plate by which the varnish impressions are made, so that the sheet is printed in a corresponding manner with the varnish impression on both sides, so that corresponding transparent effects are produced and brilliant-light, half-light, and middle-light effects are obtained.

Having thus described my invention, I

claim as new and desire to secure by Letters Patent—

A diaphanous picture printed by print and counter-print in register on both sides of the sheet and having similar varnish impressions applied to said colors in register with the same and with each other, substantially as set forth.

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

WM. SCHUMACHER.

Witnesses:
CARL KNAPPE,
CARL F. J. STUEBER.