

C. RICHTER.

PROCESS FOR PREPARING AUTOTYPE NEGATIVES.

APPLICATION FILED MAY 4, 1905.

Fig.1

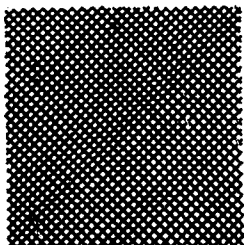


Fig.2

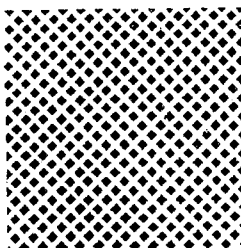


Fig.1a

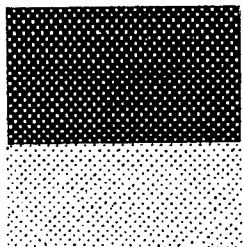


Fig.2a

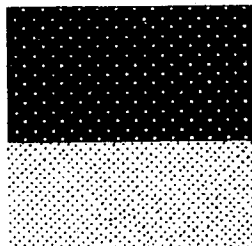
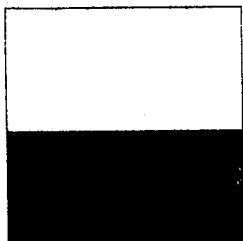


Fig.3



Witnesses:
Arthur Zimmmer E.
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Inventor:
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Frank B. Schenck

UNITED STATES PATENT OFFICE.

CARL RICHTER, OF BREMEN, GERMANY.

PROCESS FOR PREPARING AUTOTYPE-NEGATIVES.

No. 802,598.

Specification of Letters Patent.

Patented Oct. 24, 1905.

Application filed May 4, 1905. Serial No. 258,854.

To all whom it may concern:

Be it known that I, CARL RICHTER, a citizen of the German Empire, and a resident of Bremen, Germany, have invented certain new and useful Improvements in Processes for Preparing Autotype-Negatives, of which the following is a specification.

The object of this invention is to clear the lights of autotype or photomechanical printing-plates, in which, as is well known, the ordinary printing process leaves small points on the surface where these surfaces ought to be perfectly white, this clearing being effected by means of a subsequent exposure of the negative to light through a second screen of a different kind.

In the accompanying drawings, Figure 1 represents the first or cross screen used in my improved process. Fig. 2 represents the second or point screen. Fig. 3 represents the picture to be reproduced. Fig. 1^a represents the negative of said picture when produced by the first screen only, and Fig. 2^a represents said negative when produced by both screens.

Briefly stated, the object of the invention is to reduce the openings of the negative shown in Fig. 1^a to about one-half at the light portions of the picture.

The process consists in systematically removing the single elements which the cross-screen, Fig. 1, leaves in the lights of the picture—i. e., in the shadows of the negative, Fig. 1^a. To this effect the negative after being exposed to the cross-screen is exposed to the action of a point-screen, Fig. 2, in which the distance between the centers of the covered elements is equal to double the distance between the centers of the openings in the cross-screen. Thus a process-negative prepared in the ordinary way in a screen-camera before

being developed is subjected to a short second exposure after the cross-screen has been replaced by a point-screen. In this way the lights of the negative are further exposed, but only at those places which are not protected by the covered parts of the point-screen. A copy prepared by this negative, Fig. 2^a, appears in the deep portions like one prepared by the ordinary screen process; but the number of printing elements in the lights is reduced by one-half, so that a much deeper etching of the plates is rendered possible.

What I claim is—

1. A process of preparing autotype-negatives which consists in first exposing the negative through a cross-screen and then exposing it through a screen provided, at the points corresponding to the openings of the cross-screen, with uniformly-alternating covered and uncovered elements, substantially as specified.

2. A process of preparing autotype-negatives which consists in first exposing the negative through a cross-screen and then exposing it through a point-screen, substantially as specified.

3. A process of preparing autotype-negatives which consists in first exposing the negative through a cross-screen, and then exposing it through a point-screen, the distance between the centers of the covered elements of the point-screen, corresponding to double the distance between the centers of the openings of the cross-screen, substantially as specified.

Signed by me at Bremen, Germany, this 22d day of April, 1905.

CARL RICHTER.

Witnesses:

W. SHEELE,

Gg. JANSSEN.