

PATENT SPECIFICATION

(11) 1 574 411

1 574 411

- (21) Application No. 23161/75 (22) Filed 27 May 1975
(23) Complete Specification filed 28 March 1978
(44) Complete Specification published 3 Sept. 1980
(51) INT CL³ G03F 5/22
(52) Index at acceptance
G2X B19C



(54) IMPROVEMENTS IN OR RELATING TO HALFTONE PRINTING

(71) I, ARTHUR ERNEST FIELD, 25 Ridgeway Road, Herne, Herne Bay, Kent, English, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement:—

Previous patents have been granted to me concerning improvements in or relating to photomechanical printing processes. These are British Patent Nos. 431,384; 563,028; 824,769 and 901,412, United States Patent No. 2,027,271, South African Patent No. 690/44, Australian Patent No. 123,366 and Canadian Patent No. 509,589.

British Patent No. 563,028 concerns a process for producing a half-tone photographic plate which includes the step of making an exposure, either successively or simultaneously, through a segmented stop as defined therein and through a non circular stop e.g. a square stop.

I have now found that, if the process of British Patent No. 568,028 is used in the preparation of half-tone colour separation negatives to be used in the production of a multicolour half-tone print, it is possible to use a halftone screen with rulings at the same angle for the production of all the colour separation negatives and that despite the use of the same angle a multicolour print can be produced without undesirable Moiré pattern.

Accordingly my invention relates to a process of forming a multicolour print by a photomechanical printing process comprising:—

(i) preparing 2, 3 or 4 halftone colour separation negatives using the process of specification No. 563,028 from a multicoloured original employing a halftone screen and appropriate colour

filters the rulings of the screen being at the same angle for each colour separation negative, and
(ii) using the resultant halftone colour separation negatives to prepare printing plates from which a multicoloured print is produced.

Preferably the lines on the screen are at an angle of 45° to the horizontal. My process may be used for printing on paper e.g. newspapers, packaging materials, or periodicals or any other suitable surface e.g. pottery china, glass, plastic, cloth, metal, rubber or cork, or a light sensitive material.

The printing process may be a letterpress, photolitho, photogravure, silk screen, planographic or intaglio printing process.

The filters used are one or more of the usual red, green and blue filters and the filters, used for preparing the black printer.

Having now particularly described my invention,

WHAT I CLAIM IS:—

1. A process of forming a multicoloured print by a photomechanical printing process comprising:
 - (i) preparing 2, 3 or 4 half-tone colour separation negatives using the process of specification No. 563,028 from a multicoloured original employing a half-tone screen and appropriate colour filters, the rulings of the screen being at the same angle for each colour separation negative and
 - (ii) using the resultant half-tone colour separation negatives to prepare printing plates from which a multicoloured print is produced.
2. A process as claimed in claim 1 wherein the rulings of the screen are at an angle of 45° to the horizontal.

3. A process as claimed in claim 1, wherein the print is produced on paper, china, glass, plastic, cloth, metal, rubber or cork.

4. A process as claimed in claim 1 substantially as herein described.

A. E. FIELD.

Printed for Her Majesty's Stationery Office, by the Courier Press, Leamington Spa, 1980
Published by The Patent Office, 25 Southampton Buildings, London, WC2A 1AY, from
which copies may be obtained.