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METHOD AND MEANS OF COLOR PRINTING

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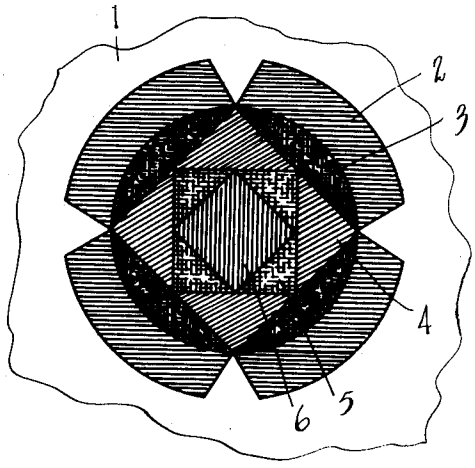


Fig. 1

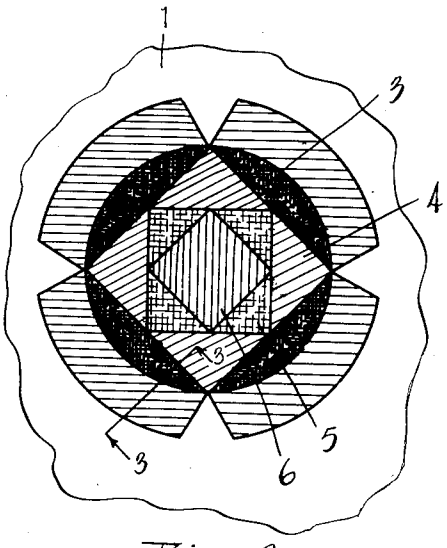


Fig. 2

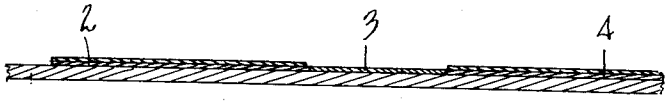


Fig. 3

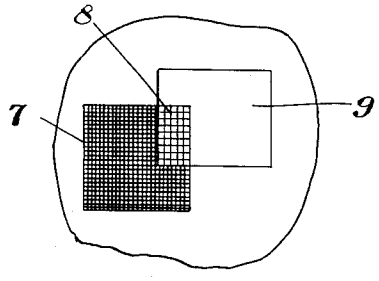


Fig. 4.

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METHOD AND MEANS OF COLOR PRINTING

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1 Claim. (Cl. 101—211)

The main object of the invention is to provide a method and means for printing in colors quickly and economically.

More particularly the object of the invention is to provide a method and means for directly tinting printed colors and black to thereby obviate the trouble, time, labor and expense of mixing inks for this purpose and additional press runs for each color.

Objects relating to details and economies of our invention will appear from the description to follow. The invention is defined in the claim. A structure which is a preferred embodiment of our invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a plan view of a portion of a sheet of paper having a plurality of primary colors and black printed thereon.

Fig. 2 is a view similar to Fig. 1 of the same print after it has been tinted with white ink.

Fig. 3 is a cross sectional view greatly enlarged, taken on line 3—3 of Fig. 2.

Fig. 4 is a view similar to Fig. 1 of white on black.

In the art of color printing in the past, it has been customary where it is desired to tint colors to mix the colored ink with a sufficient amount of white ink to produce the desired tint.

The word "tint" when used in this specification has reference to any delicate variant of a color made by modifying it with white, as is well understood in the art.

In practicing our invention, we obviate the necessity of mixing the inks as heretofore practiced by printing the color directly upon the surface to be colored and then printing directly on said printed color with white ink to thereby produce the desired tint. In practicing our invention, we prefer to use only primary colors such as red, yellow and blue together with block when desired and white for tinting.

Referring to the drawing, the sheet of paper 1 has a plurality of colors printed thereon. These colors may be applied in any suitable manner, as for example by printing a layer or layers of ink individually or in overlapping relation directly upon the sheet of paper 1.

Numeral 2 indicates a layer of blue ink, 3 black, 4 purple, 5 yellow, and 6 red. The yellow, red, blue and black colors are of course printed directly upon the surface of the sheet of paper 1. The purple is formed by first printing red and then printing blue directly upon the red, the red and blue blending with each other to form purple. Various other color combinations may be formed in the same manner.

After the colors have been printed on the sheet of paper as indicated by Fig. 1, then these colors are tinted in accordance with our invention by superimposing or printing a layer of white in a suitable vehicle, such as ink, directly upon the colors to be tinted. The change is indicated by Fig. 2. The blue 2 is changed to a light blue, the yellow to a light yellow, the red to a light red or pink, and the purple to a light purple or orchid or lavender. The black 3 is of course left unchanged. It is of course possible to change the black 7 to gray 8 or the like by overlapping it with a layer of white 9, as illustrated by Fig. 4.

Our invention is particularly applicable to the color printing, and by color printing we mean all processes including litho, offset and colored gravure work. The practice of our invention produces very beautiful color combinations and pastel shades because of the great variety of colors and tints that are made possible. Further, the practice of our invention is not only simple but it is economical because it obviates the necessity of mixing the pigments to produce the various color combinations which are desired, and reduces the press runs. The process also is adapted to any kind of paper, either coated or uncoated or the so-called rough papers.

While we prefer to use black, primary colors and white only, it will be apparent to those skilled in the art that various other mixed colors may be printed and tinted in accordance with our invention without departing from the spirit thereof, which we desire to limit only by the scope of the following claim.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent, is:

In color printing, the process which comprises first printing with a plurality of colored inks, and then printing on portions of the colored inks with semi-opaque white ink to produce lighter tints thereof.

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