To all whom it may concern:

Be it known that I, AMOS H. SMITH, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented new and useful Improvements in the Art of Printing, of which the following is a specification.

This invention relates to improvements in the art of printing, and has for its object to provide means whereby the design or matter of one or more original design-plates or their equivalent may be transferred to a final common printing-surface with improved effects, and whereby particularly the effects of tinting may appear in the printed design or matter, although such effects do not appear upon the original designs or matter.

My invention consists in first preparing the original form or design either in one or more separate parts, according to the number of colors I desire to employ, then offsetting the design or compound design onto a transfer-surface, then transferring from the said transfer-surface to a plate having a tint effect engraved or etched thereon, then offsetting from the said tinted plate to a second transfer-surface, and thence transferring the whole design with the impressed tint effect to the final printing-surface, which may be of metal or any desired equivalent.

In the practice of my invention the design or matter is first placed permanently upon the original plate or plates or their equivalent either by engraving or otherwise. The scope of my invention includes the making of the design entirely upon a single original plate, if desired; but in the particular process now to be described the original design consists of two or more plates, each bearing a portion of the design or each a design which comprises a part of the entire matter ultimately to be printed. Having thus produced or made ready the design or designs to be printed, they are inked in the desired colors and offset to a transferring-surface of gum or composition, such as a printer's roller. Assuming the design to be engraved or otherwise placed upon two separate plates, to the end that parts of the design be printed in one color and the remainder in another color, an either duplex or compound design is from the said plates thereby conveyed to the transferring-surface, upon which it appears in the two colors. From this transfer-surface the design is then transferred to a plate having a tint effect engraved or etched thereon, and is then offset to a second transfer-surface similar in character to the first, and from this transfer-surface the said design, bearing the impress of the tinted plate, is then transferred to the final printing-surface. In practice I have used a smooth metal plate as the printing-surface; but the scope of my invention is not limited in this regard. Whin the design or matter is printed from this printing-surface in the customary manner, the subject-matter of the original design-plates will appear with the addition of the lines or shades of the said tinted plate, and therefore an engraved or tinted effect is in the printing given to designs which originally did not possess such effects, by which means differently tinted plates may be introduced for the same designs, or the one tinted plate may be used from time to time for various designs, thus in either instance saving the specific engraving or tinting of the various plates, while at the same time contributing the tinted effect to the ultimate product of plates which—as, for example, relief-plates—could not individually themselves be engraved or tinted.

The essence of the invention remains the same whether the original design be an engraving, electroplate, type, or any other matter to be printed, and such matter may be or appear upon said original plate or type either in intaglio or in relief.

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

1. The process of printing, which consists in preparing a printing-surface, offsetting a design from a design-plate onto a transferring-surface, transferring said design to a plate engraved or etched with a tint effect, offsetting the design from the said tinted plate to a second transferring-surface, and transferring the said design therefrom to the said printing-surface, whereby said design appears thereon in its original form with the added tint effect, and then printing therefrom, substantially as shown and described.
2. The process of printing, which consists in preparing a printing-surface offsetting a design from design-plates each bearing a portion thereof onto a transferring-surface, transferring said design to a plate engraved or etched with a tint effect, offsetting the design from the said tinted plate to a second transferring-surface, and transferring the said design therefrom to the said printing-surface, and then printing therefrom, substantially as shown and described.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

AMOS H. SMITH.

Witnesses:

W. C. HAUFF,

E. F. KASTENHUBER.