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B. W. HANNON

2,240,773

METHOD OF LITHOGRAPHY

Original Filed Nov. 15, 1937

Fig. 1.

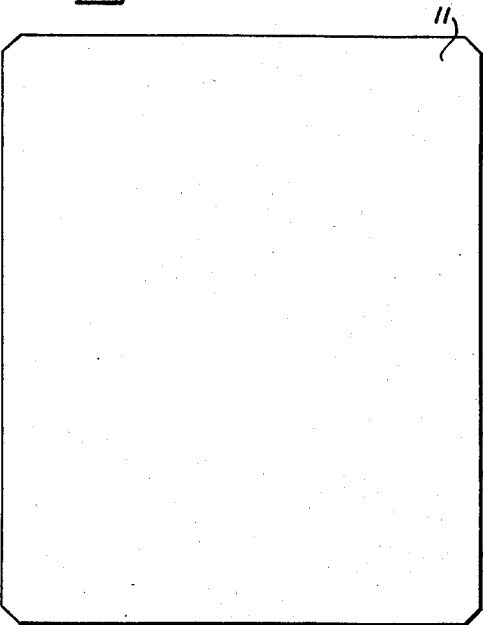


Fig. 2.

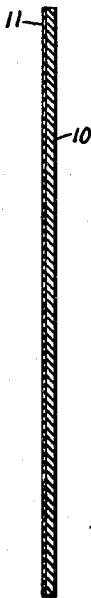


Fig. 3.

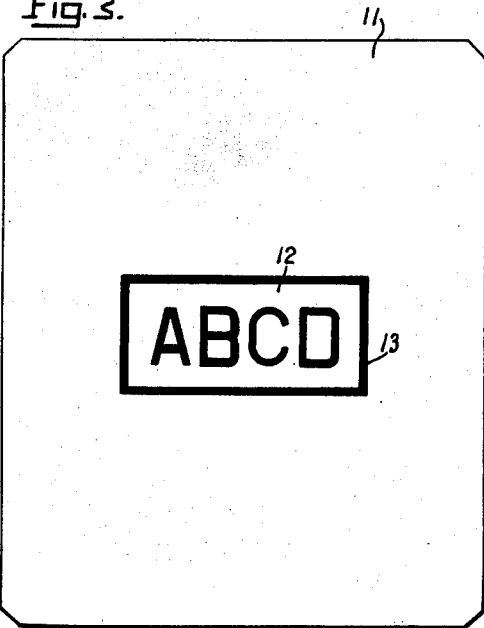
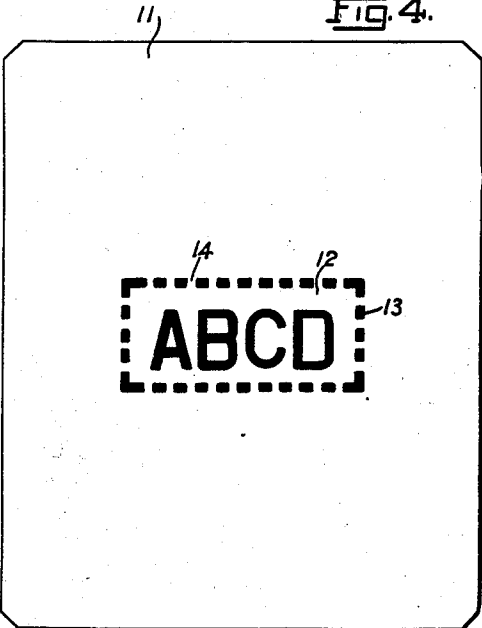


Fig. 4.



BYRON W. HANNON, ^{Inventor}

BY ^{Attorneys}
Pauline & Pauline

UNITED STATES PATENT OFFICE

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METHOD OF LITHOGRAPHY

Byron W. Hannen, Chicago, Ill.

Original application November 15, 1937, Serial No. 174,505. Divided and this application December 4, 1939, Serial No. 307,535

1 Claim. (Cl. 101—34)

This invention relates to the reproduction of inscriptions and designs, and in particular, to tablets or similar members for receiving ink drawings for the use of artists and letterers, especially for lithography and similar processes.

One object of this invention is to provide a drawing-receiving member for receiving ink drawings in reproductive processes, such as lithography, wherein the member is provided with an ink drawing surface and a base of atmospherically inexpandible material, such as metallic or molded plastic material.

Another object is to provide an ink drawing member having a metallic or similar base and an ink drawing receiving layer secured thereto.

Another object is to provide an ink drawing member having a metallic or similar base, upon which an ink drawing receiving layer is applied, as by coating or spraying, the coating substance including a chalk-like material and an adhesive for securing it to the base.

Another object is to provide an ink drawing receiving member for lithography and similar processes, consisting of a metallic or similar plate having thereon a layer of a light-colored substance with a matte surface, whereon the ink drawing may be applied by the artist or letterer and then transferred to stone or zinc for the printing procedure.

Another object is to provide a method of drawing reproduction consisting in applying to a metallic or similar member an ink-receiving layer having a light-colored matte surface, or treated to provide such a matte surface, inscribing thereon the drawing or inscription and transferring the drawing or inscription to a lithographing stone or metal plate, such as zinc, aluminum, etc.

This application is a division of my application Serial No. 174,505 filed November 15, 1937.

In the drawing:

Figure 1 is a front elevation of the drawing-receiving member of this invention.

Figure 2 is a cross section through the member of Figure 1.

Figure 3 is a front elevation of the drawing-receiving member of Figure 1 after a drawing has been inscribed thereon.

Figure 4 is a view of the inscribed member of Figure 3 after certain alterations have been made thereon.

In general, the ink drawing-receiving member of this invention consists of a metallic or similar base upon which an ink-receiving surface or layer has been applied. This ink-receiving layer is of a substance having a light color so as to provide the

necessary contrast for the drawing ink or pigment, and is capable of being provided with a matte surface to facilitate the application of the drawing ink or pigment. Instead of the metallic plate a base of molded plastic material may likewise be employed, where such material is of a kind which is comparatively inexpandible under ordinary atmospheric conditions.

Hitherto, in preparing drawings for reproduction by lithographic processes, the artist or letterer has ordinarily inscribed the drawing upon the lithographing stone or upon a coated cardboard medium, such as that known to the lithographing art as Ross board. Thereafter the design is transferred to another stone or to zinc or aluminum for the printing process. The work drawings themselves are reproductions usually of color sketches and may consist of labels or prints made in ink upon the stone or coated cardboard medium. Such a cardboard medium of one type has a chalk-like coating, such as French chalk, applied to a cardboard base. Such cardboard tablets or drawing-receiving members, however, are subject to expansion under varying atmospheric conditions, and hence, will not maintain sufficiently exact measurements, which are necessary under certain precise printing or lithographing conditions. Certain lithographing work, for the best results, requires the designs to be maintained within $\frac{1}{64}$ " of variation upon the outside measurements. The coated cardboard tablets hitherto used will not always maintain this degree of precision, and frequently expand during processing, thereby producing faulty or inaccurate work.

The ink drawing-receiving member of the present invention, as shown in Figure 1, consists of a metallic or molded plastic base 10, upon which an ink-receiving layer 11 is applied. The base 10, being of metal or molded plastic material such as a synthetic resin material, is comparatively unaffected by atmospheric variations and is therefore substantially unvarying in its measurements throughout ordinary printing or lithographing processes. The drawing-receiving layer 11 is preferably of a substance of a sufficiently light color to provide the necessary contrast for the drawing inks, and of suitable texture to receive the drawing inks without blurring or smudging. Such a suitable material is French chalk, with a binding agent or adhesive mixed therewith for securing the substance to the base 10. The ink drawing-receiving layer 11 may be coated by painting or spraying, and is preferably of a white or similar light color.

In using the drawing-receiving member of tablet of this invention, the surface is preferably prepared for the drawing ink by rubbing with wet or dry pumice so as to remove any oil which may have risen to the surface and also to provide the coating layer with a matte surface whereon the ink will flow smoothly and evenly. The design 12 is then applied to the ink-receiving surface by the artist in the ordinary manner, as shown in Figure 3. If any alterations are later desired, they may be accomplished merely by scraping out the portions of the ink which it is desired to remove. Thus, the border 13 of the drawing 12 may be given the dotted line appearance of Figure 4 instead of the solid line appearance of Figure 3 merely by scraping out the portions 14 therefrom and revealing the coating layer 11 therebeneath. Other changes or substitutions can be made in a similar manner, and corrections or other variations accomplished as desired.

The drawing-receiving member of this invention, having an atmospherically inexpandible base 10, will lie flat and will not buckle or warp as does the cardboard base hitherto used in lithography. At the same time, this member is much less expensive than the lithographing stones or even the commercial coated cardboard members now available on the market. The coated surface is well adapted to the reception of drawing ink. Glass negatives can also be printed on this coated metal member. As the material is fire-resisting, there is no fire hazard created either in the preparation, utilization or storage of such members.

In the process of reproducing the drawings

according to this invention, an atmospherically inexpandible base 10 is coated with an ink-receiving layer 11, the ink drawing is inscribed thereon and the design transferred to the lithographic printing block of stone, zinc, aluminum or other suitable material. The transfer of the design is preferably made by photographic methods as is the common practice. A substance which is particularly well adapted for use as the coating material is French chalk mixed with a binding agent or adhesive, by which the chalk is caused to adhere to the base 10. A suitable adhesive or binding agent of this nature is varnish.

It will be understood that I desire to comprehend within my invention such modifications as come within the scope of the claims and the invention.

It will be further understood that such varnish forming the adhesive or binding agent may be thinned with turpentine so as to provide a good prime for spraying or coating the metal so as to make the paint or ink-receiving layer adhere to the metal plate or base 10.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

A method of preparing lithographic plates comprising applying an adhesive coating including chalk to a flat substantially inexpandible rigid base, drying the coating, polishing it to a smooth hard matte ink-receiving surface, inking a drawing upon said ink-receiving matte coating surface, and transferring the inked drawing to a lithographic printing plate.

BYRON W. HANNON.