

1

2

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MASKING METHOD AND COMPOSITION FOR PRODUCING COLOR PAINTINGS

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This invention relates to a method of producing by air brush painting with water soluble paints, inks, dyes, etc., various designs, figures, artistic patterns, letter printing, and any other art work of an illustrative and/or descriptive character. The invention is particularly adapted for use by commercial artists in the production of commercial art work for advertising and various other commercial purposes.

One of the objects of the invention is to provide a simplified and reliable method of producing, by air-brushing with water soluble paints, etc., art work of the above character, whereby such work may be more quickly produced even with the finest detail, and with a minimum amount of effort and number of operations.

Another object of the invention is to provide an improved method of producing, by air-brush painting with water soluble paints, etc., art work of the above character, which includes the step of masking or covering a portion or portions of said work while other adjacent portion or portions thereof are being spray painted, said method utilizing a masking material which is simple in substance and which may be easily applied and removed from the work.

Another object is to provide an improved method of masking one or more portions of a work-piece so that said portion or portions will be covered and protected while air-brush painting operations are being performed on other adjacent portion or portions of said work-piece, said masked portion or portions when thereafter unmasked, presenting a portion or portions of a contrasting color and of a desired size, shape, design or outline which may or may not be subsequently spray painted in accordance with the desired finished work.

Another object is to provide in the production of color art work of the above character by air-brushing with water soluble colors, a novel masking medium which may be effectively used for fine-line work, and to obtain a desired figure, design or pattern of any size and having a relatively fine detail outline.

Another object is to provide in the production of color art work of the above character by the air-brush painting process, a novel masking medium by means of which any described artistic effect, including the effect commonly referred to as "dry brush effect" heretofore impossible with masking material, may be successfully obtained.

A further object is to provide an improved masking medium which will require no drying time after it is applied to the work-piece, this enabling air-brush painting of said workpiece immediately after said masking medium is applied and thereby expediting the production of a desired work.

Still another object is to provide an improved masking material which will remain indefinitely in its original active state, and which may be left on the work-piece for a long period of time without in any way affecting the work-piece or the surface thereof or impairing the masking effectiveness of said masking material, whereby

only a single application of the masking material is necessary for single or multi-color spray painting, and the spray painting operations may be conveniently performed immediately after said masking material is applied or may be safely delayed for a period of time if necessary or desirable.

Another object is to provide an improved masking material for the described purpose, which may be removed from the workpiece easily and quickly by a simple wiping operation.

Another object is to provide a novel masking medium for the described purpose, which may be safely applied over color coatings of water soluble paints, inks, dyes, etc., without in any way affecting said paints, etc., and which may be removed from said coatings by a wiping action without in any way smearing, fading or otherwise changing or impairing the same.

Another object is to provide a novel masking medium which may be effectively applied for the purpose described on all kinds of non-greasy unabsorbent materials which are susceptible to water soluble paints, inks, dyes, etc., such as, writing paper, drawing paper, cardboard, Bristol board, illustration board, artists' canvas, cellulose acetate, plastics, photo-prints, carbro-prints, glass, wood, metal, tile, textiles and the like.

Still another object is to provide a novel masking medium for the purpose described, which will not stain or noticeably stain, or otherwise affect the surface to which it has been applied.

Another object is to provide a novel masking medium for the purpose described, which may be effectively applied by an artists' bristle or air brush, a writing pen, a ruling pen, a lettering pen, a bow pen compass, or other instrument as is required to apply said masking medium in the form of designs, circles, lines, letter-work or the like, and in and around relatively small and large areas having a coarse or a fine detail outline.

Still a further object is to provide a novel masking medium for the purpose described, which when once prepared, will always remain active, will never dry or harden under room temperature and when exposed to air, which will not be tacky, and which will not have any objectionable odor.

Another object is to provide a novel masking medium which may be effectively employed in a printing press, whereby various designs, figures, patterns, letter-work, or the like may be printed with sharp edges or outlines in said masking medium by a printing plate on sheet material for the purpose above described.

These objects as well as other important objects will become readily apparent to those skilled in the art as the description of the invention proceeds.

The above-mentioned objects are accomplished according to this invention by providing a novel masking material which in its preferred form comprises substantially 39¼ parts of standard commercial petrolatum or petroleum jelly, white preferred, 48 parts of xylol or xylene, 12 parts of standard commercial white lead which contains 90 parts of basic carbonate white lead and 10 parts linseed oil, and ¾ part of cobalt blue ground in pure linseed oil to a paste, all thoroughly and uniformly blended together. The above proportions provide a flowable masking liquid having a consistency such that it may be conveniently and effectively applied to the work-piece by means of an artists' air or bristle brush, conventional drafting instruments, a writing pen, or any other instrument or tool of this character, and when so applied it will not crawl or spread and will retain its applied shape.

The petrolatum or petroleum jelly is water repellent, it is impermeable to and not miscible with water soluble colors, it will not dry or harden under room temperature and when exposed to air, and above all it will not

3

stain or injure in any way the materials or the surfaces thereof to which the described masking liquid is applied even if said masking liquid is left on said materials for a long time. The white lead is primarily added for the purpose of advantageously and effectively causing the coating or layer of water soluble paint, ink, dye, etc., sprayed over the masking liquid in the process of producing a colored work-piece, to dry scale-like on said masking liquid. The white lead further advantageously renders the petrolatum or petroleum jelly slightly opaque, it is also water repellent and impermeable to and not miscible with water soluble colors, it also will not stain or injure in any way the materials or the surfaces thereof to which the masking liquid is applied, it increases the covering or masking properties of the petrolatum or petroleum jelly, and in the described masking liquid mixture it will not dry or harden under room temperature and when exposed to air. The purpose of the xylol or xylene is to thin the petrolatum or petroleum jelly and white lead mixture to the described desired consistency of the masking liquid. The xylol or xylene is also water repellent and impermeable to and not miscible with water soluble colors, and it will not stain or injure in any way the materials or the surfaces thereof to which the masking liquid is applied. Instead of the xylol or xylene, other known thinners, such as for example, benzol and naphtha, may be used. The cobalt blue is merely added to give color to the masking liquid so that the latter is easily visible and observable when applied particularly to white or pale colored surfaces, and to transparent and translucent base materials. While any desired color tint may be used for this purpose, cobalt blue is preferred for the reason that if the masking liquid because of the color tint does leave a slight stain on the surface of the base material, which stain is neither visible to the naked eye nor objectionable, the cobalt blue stain will not photograph if and when photostatic or other photographic reproductions of the finished product or work piece are subsequently made for a desired purpose.

The described ingredients will thus provide a simple, inexpensive and effective masking liquid having the important features, namely, it enables the production of color paintings simply, inexpensively, and expeditiously with water soluble colors, it is water repellent and impermeable to and not miscible with water soluble colors, it will effectively serve as a temporary protective covering when light as well as heavy air-brush painting operations with water soluble paints, inks, dyes, etc., are performed on a work-piece, it will not stain or noticeably stain the surface of the work-piece or have any harmful effects on said surface or the base material, it will not dry or harden under room temperature or when exposed to air, it will remain in its active liquid state for an indefinite period of time, and may be left on the work-piece for a long time without injuring said work-piece, it may be safely applied over dried coatings of water soluble paints, inks, dyes, etc., without in any way affecting said coatings, and it may be easily removed from the work-piece.

The described proportions of the masking liquid mixture are not critical and may be varied as desired, but for an all-purpose masking liquid and to suit all conditions, these proportions are recommended. When doing light air-brush painting only, more xylol or xylene thinner may be used, and when producing color paintings on base materials having relatively dark surfaces, the cobalt blue or color tint may be omitted. Additionally, other materials may be found having substantially the same characteristics and properties as petrolatum and white lead and, therefore, the use of such materials is contemplated.

Although the described masking liquid mixture may be prepared in various ways, I have found that said mixture may be expeditiously prepared by first adding all of the xylol or xylene to the white lead under constant stirring until said two ingredients are thoroughly and

4

uniformly blended together. To the resulting solution of white lead and xylol the cobalt blue-linseed oil paste is then added under constant stirring until the resulting mixture is a uniform color. The petrolatum or petroleum jelly is then heated to a very thin consistency and then slowly added to the white lead, xylol and color mixture under constant stirring until said four ingredients are thoroughly and uniformly blended together. The resulting solution is now ready for use as the masking material and needs no further preparation, except to occasionally stir or shake the same particularly after it has not been used for some time.

Since there is substantially no limit to the kind of art work or species of designs, figures, patterns, etc., that can be effectively produced by the practice of the method of the invention, only said method and its application will be described without reference to a specific kind of art work or type of design, figure, pattern, or the like. To begin with, when producing such commercial or other art work, designs, figures, patterns, etc., on base materials which are susceptible to pencil as well as to water soluble paints, inks, dyes, etc., a fine-line pencil drawing, sketch, or outline of the subject is first made directly on said base materials. When producing such commercial or other art work, designs, figures, patterns, etc., on base materials, such as transparent cellulose acetate, plastic, glass, or the like, which are not susceptible to pencil but susceptible to water soluble colors, a guiding sketch, drawing, outline or templet of the subject is placed beneath such materials so that it is visible therethrough.

Having provided the necessary guide drawing, sketch, or outline of the subject as above described, the next step in carrying out the method of the invention, is to apply the hereinbefore described simple masking liquid on the surface of the base material and over the portion or portions thereof which are to be protected from any paint reaching the same or acting thereon. The application of the masking liquid is governed by the type of subject and result desired. In some cases, the masking liquid is applied along the exact outline but exteriorly of the portion or portions to be colored, thereby completely enclosing such portion or portions which may represent on the finished product the desired design, figure, pattern, or the like, which will be in contrast with the base color or final color on the product. In other cases, the masking liquid may be applied along the exact outline but interiorly of the portion or portions to be colored, thereby presenting in masking liquid the desired design, figure, pattern or the like, which will appear on the finished product in the form of a definite outline thereof and in the base color of the base material in contrast with the final color on the product. As is required to accomplish the desired result, the masking liquid may be applied in the form of straight and curved lines and circles of any thickness, in an irregular outline or pattern of a coarse or the finest detail, and over relatively large and small areas. For relatively simple subjects such as letter, number and writing-work, and simple designs, figures, patterns, and the like, such subjects or outlines thereof may be drawn or represented in masking liquid on the base material without the aid of a guide drawing, sketch, outline or templet.

Immediately or any time after the masking liquid has been applied, a water soluble paint, ink, dye, or the like, in a desired color is sprayed by means of an artists' air-brush over the base material, covering both the masking liquid and that portion or portions of the surface of the base material adjacent to and surrounded by or surrounding said masking liquid, as the case may be. The use of an air-brush for applying the color paints, inks, dyes, etc., is considered to be important since it eliminates physical contact of the artist with the work-piece, it assures uniform application of the paint and complete coverage, it is much faster than conventional hand brushing, there is absolutely no disturbance of

the masking liquid, and any desired tone or color effect may be obtained. In some cases the water soluble color may be applied over the masking liquid with an artists' bristle brush. The applied coating of paint, ink, dye, or the like, dries almost immediately, but adheres only to the portion or portions of the surface of the base material which have not been masked or protected with the masking liquid, and lays on top of said masking liquid. Without disturbing the applied masking liquid, additional coatings of paint, ink, dye, or the like in other colors may now or later be sprayed over the initial color coating to obtain the desired tone or color effect in the finished product, each additional color coating being permitted to dry before the next color coating is applied thereover. It should be mentioned, that with the novel masking liquid the artistic effect commonly referred to in commercial art work as "dry brush effect" may be effectively obtained on the finished product.

After the final coating of pink, ink, dye, or the like has been applied and has dried, the masking liquid together with the dried scale-like particles or coating of paint lying thereon is removed by simply wiping the same from the surface of the work-piece with a wad or pad of absorbent cotton or the like, which has been moistened with a selective solvent for the masking liquid. It has been found that benzol is a safe and effective solvent for petrolatum or petroleum jelly, and that it has no effect whatsoever on dried coatings of water soluble paints, inks, dyes, and the like. Accordingly, it follows that when the masking liquid is washed from the work-piece with benzol-moistened-cotton or the like, there will be no smearing, fading or removal of the color coating and said color coating will substantially retain its original state. Xylol or xylene or naphtha may be used as the wash-out liquid or solvent, but benzol is preferred because of its rapid drying properties. It has been found that with certain base materials, such as photo-prints and carb-ro-prints for example, the masking liquid may be removed by simply wiping the same from the surface of the work-piece with a completely dry wad or pad of absorbent cotton or the like. As a result of the washing or wiping operation, the portion or portions of the work-piece previously covered by the masking liquid are exposed in the base color of the base material which is in contrast with the final color coating on the work-piece.

Upon removal of the masking liquid from the work-piece as above described, the method is completed. It may, however, be repeated in the manner above described on the same work-piece to apply different specific colors to the portion or portions previously covered by the masking liquid, or to other portions not previously covered by the masking liquid or painted, as well as over certain parts of the previously painted portions, by again applying the masking liquid to designated portion or portions, again air-brushing with water soluble paints, inks, dyes, or the like, and again washing or wiping said masking liquid from the surface of the work-piece. In the repeat performance of the method, the application of the masking liquid over the previously applied coating of water soluble paint, ink, dye or the like, and the subsequent removal of said masking liquid from said coating will have no damaging or injurious effect whatever thereon.

It will be apparent from the foregoing description that the invention lends itself to the production of unlimited kinds of commercial and other art work, and enables such work to be rapidly produced with water soluble colors and with a minimum amount of effort and number of operations.

The method of the invention may be practiced for the described purpose with the same advantageous results by utilizing an alternate masking material or substance consisting of approximately 90 to 95 parts of standard commercial petrolatum or petroleum jelly, white pre-

ferred, 2 parts of cobalt blue or other oil color pigment ground in linseed oil to a paste, and 3 parts xylol or xylene, thoroughly and uniformly blended together. These proportions provide a semi-solid, non-flowable mixture. This alternate type of masking material which comprises in the main petrolatum or petroleum jelly, will not stain or noticeably stain, or injure the materials to which it is applied, it will remain active for an indefinite period of time and may be safely left on the work-piece for a long period of time, it may be safely applied over dried coatings of water soluble paints, etc., without in any way affecting said coatings, it will retain its applied shape and will not spread or crawl on the work-piece, and it may be easily removed from the work-piece.

The application of the alternate type of masking material is the same as the application of the first described preferred type of masking liquid, and said alternate masking material may be applied with an artists' bristle brush to the work-piece, and used in its original semi-solid, non-flowable state, particularly when performing heavy air-brushing operations. For medium and light air-brushing operations, and to enable application of the alternate type of masking material with an artists' air-brush and conventional drafting instruments, as well as with a writing pen and an artists' bristle brush, said masking material is thinned to the desired workable consistency. This thinning of the alternate type of masking material may be effected by adding thereto additional xylol or xylene in the amount required to bring said masking material to the desired flowable consistency. However, in order to advantageously retain the full strength of the alternate type of masking material, the thinning of said masking material is preferably effected by heating the same. This heat thinning of the alternate type of masking material may be effected in various ways, such as, for example, by placing a small jar or vessel containing a quantity of said masking material on a small electrically heated thermostatically controlled stove or in a pan of hot water, or by placing said jar or vessel in the conventional water-activated baby-bottle heater. For pen and air-brush application, the alternate type of masking material may be thinned by placing a quantity of said masking material in such instruments and momentarily holding the same over a small flame such that said flame will strike the instrument above the reservoir for the masking material.

Since the alternate type of masking material comprises in the main petrolatum or petroleum jelly, the removal thereof from the surface of the work-piece differs from that of the first-described preferred type of masking material, in that a common blotter, preferably white, is first placed carefully but lightly over the same to absorb the sprayed particles or coating of water color which has settled thereon. The blotter is then carefully removed without disturbing the masking material, and then a wad or pad of absorbent cotton or the like moistened with a selective solvent, such as benzol, is used to wash said masking material from the surface of the work-piece by repeated upsweep motions until the masking material is completely removed, said cotton being turned after each stroke to bring a clean portion thereof into wiping position. The described blotting step is primarily a time saver, but if time is not of the essence and the removal of the masking material can be delayed for a few minutes after the air-brushing operation or operations, said blotting step may be eliminated.

The method described may be advantageously practiced mechanically in part by utilizing an ordinary printing press and printing in masking material desired designs, figures, patterns, letter-work, number-work, and the like, which are in the reverse of that which is to appear in the finished product. For this purpose a third form of masking material is provided which is especially suited for fountain application to a printing plate and for obtaining clean cut impressions in masking material

from said plate on a base sheet. This particular masking material comprises substantially 38 parts of standard commercial petrolatum or petroleum jelly, white preferred, 2 parts xylol or xylene, 30 parts printers' standard light blue ink, and 30 parts printers' opaque white ink. These proportions provide a semi-solid, non-flowable mixture, and the printers' inks serve as a binder to give the masking material the necessary body to enable fountain application of said masking material to a printing plate and transfer of the same from said printing plate to a base sheet in clean cut impressions. The printers' inks also serve to give color to the masking material so that the latter is easily visible when printed on the base sheet, the light blue color being chosen for the same purpose as that described in connection with the first and preferred type of masking liquid.

This particular masking material also is water repellent and impermeable to and not miscible with water soluble colors, it will not stain or noticeably stain the surface of the base sheet, it will remain in its printed active state for a long period of time and may be left on the base sheet for a long time without harmful effects to the base sheet, and it may be easily removed from the base sheet.

After the masking material has been printed on the base sheet in a desired figure, pattern, design, or the like, said sheet is taken from the printing press for subsequent spray painting of the water soluble color or colors thereon in the manner previously described, after which the printed masking material is removed from the base sheet in the same manner hereinbefore described in connection with the first and preferred type of masking material.

It is apparent that unlimited different kinds or types of commercial and other art work may be produced by the present invention. In addition to these products, the invention will also be useful in producing composing room proofs or sample copy, color charts, etc., and in retouching photographic prints or other existing copy to modify the same or to improve the appearance thereof. It is therefore to be expressly understood that the invention is not to be limited except as indicated in the appended claims.

What I claim is:

1. The method of producing water color paintings, which comprises applying in a predetermined figuration as a temporary protective covering over a portion of a surface a blended mixture comprising petroleum jelly, white lead and a thinner of the type of xylol for said petroleum jelly, blended together in approximately the proportions by volume to each other of 39¼ parts, 12 parts and 48 parts, respectively, said mixture constituting a non-drying masking substance which is water repellent and is impermeable to water soluble colors and is inert as to said water soluble colors, then applying a coating of a water soluble color over said masking substance and the portion of said surface adjacent to and not protectively covered by said masking substance, then allowing said color coating to dry, and thereafter removing said masking substance by wiping the same from said surface with an absorbent material moistened with a solvent of the type of benzol for said petroleum jelly and which is inert as to said color coating.

2. The method of producing water color paintings, which comprises first applying to the surface of a printing element bearing a representation of the desired figuration

a blended mixture comprising petroleum jelly, printers' opaque white ink, printers' ink of another selected color, and a thinner of the type of xylol for said petroleum jelly, blended together in approximately the proportions by volume to each other of 38 parts, 30 parts, 30 parts and 2 parts, respectively, said mixture constituting a non-drying masking material which is water repellent and is impermeable to water soluble colors and is inert as to said water soluble colors, then transferring said masking material in said figuration from said printing element to a surface of a base sheet, then applying a coating of a water soluble color over said masking material and the portion of said sheet surface adjacent to and not covered by said masking material, then allowing said color coating to dry, and thereafter removing said masking material by wiping the same from said sheet surface with an absorbent material moistened with a solvent of the type of benzol for said petroleum jelly and which is inert as to said color coating.

3. In the art of producing color paintings with water soluble colors, a fluidic, non-crawling, shape-retaining, non-staining masking substance for application to portions of the surfaces of base materials so as to temporarily protect said surface portions against the application of water soluble colors thereon during the application of water soluble colors to adjoining exposed portions of said surfaces, said masking substance being impermeable to and non-miscible with said water soluble colors and inert as to said water soluble colors and comprising, petroleum jelly, white lead and a thinner of the type of xylol for said petroleum jelly thoroughly blended together in approximately the proportions by volume to each other of 39¼ parts, 12 parts and 48 parts, respectively.

4. In the art of producing color paintings with water soluble colors, a fluidic, non-crawling, shape retaining masking substance for application to portions of the surfaces of base materials so as to temporarily protect said surface portions against the application of water soluble colors thereon during the application of said water soluble colors to adjoining exposed portions of said surfaces, said masking substance being impermeable to and non-miscible with said water soluble colors and inert as to said water soluble colors and comprising, petroleum jelly, printers' opaque white ink, printers' ink of another selected color, and a thinner of the type of xylol for said petroleum jelly thoroughly blended together in approximately the proportions by volume to each other of 38 parts, 30 parts, 30 parts and 2, respectively.

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