

UNITED STATES PATENT OFFICE.

FRANCISCO PIERA Y DE MATA, OF HAVANA, CUBA.

ART OF MAKING PORTRAITS OR OTHER PICTURES.

SPECIFICATION forming part of Letters Patent No. 472,812, dated April 12, 1892.

Application filed October 6, 1891. Serial No. 407,950. (No specimens.)

To all whom it may concern:

Be it known that I, FRANCISCO PIERA Y DE MATA, a subject of the King of Spain, residing at Havana, in the Island of Cuba, have
5 invented certain new and useful Improvements in the Art of Making Portraits or other Pictures; and I do hereby declare that the following is a full, clear, and exact description thereof.

10 The object of my invention has been to provide an improved process of making portraits or other pictures which shall have the appearance and beauty of fine engravings; and to this end my invention consists in the process and the parts thereof, as hereinafter
15 specified.

In carrying out my invention I make use of a greasy paste made up of any desired kind of black dye or pigment, whether lamp-
20 black, ivory-black, crayon, or other suitable substance mixed with oil and turpentine in greater or less proportions, according to the degree of shading required. If desired, lithographic or printing ink of any required color
25 and mixed with oil or turpentine to produce the proper consistency can be made use of, so as to avoid the necessity of mixing up the ingredients stated above.

30 All the parts of the proposed portrait or picture which do not consist of lace, tulle, mantillas, or other fabrics are sketched and shaded in by means of brushes with short hairs rubbed into the greased paste described on a suitable pasteboard palette until they
35 are nearly dry. With these brushes so prepared and differing in size and stiffness of the hairs or bristles for different parts of the work, as in the case of ordinary oil-painting, the faces and hands of the persons being por-
40 trayed and the various parts of the drapery, landscape, or scenery can be worked in and properly shaded.

In order to make the faces and hands in portraits, I use small short-haired bristle-
45 brushes, which are rubbed over or into the described greasy paste, preferably on a card-board palette, until nearly dry. The shadows are laid on by passing such prepared brushes softly over the paper or other surface em-
50 ployed a greater or less number of times, according to the degree of intensity of shade desired.

In practice I have by using brushes of different sizes and different degrees of stiffness been able to produce representations of flesh
55 of the hands, face, &c., whose tints and half-tints are in softness comparable only to those of a fine engraving. For the dark shadows, half-shadows, and finer details of work, those bristle-brushes known by the French name of
60 "Peters" and those of camel's-hair, are respectively suitable.

For the representation of flesh the pigment or paste should be less greasy and be mixed with a greater proportion of turpentine than
65 that employed for the other parts of the picture. It is then possible to make the desired clear spaces with india-rubber within a short time after the application of the pigment to the picture-receiving surface. The large
70 background and heavy details of clothing I obtain by moving the brush, nearly dry, as described, so that the ends or points of its bristles are driven against the surface with greater or less force, according as heavy or
75 light shading is desired. In this way I avoid the marking of the turn or catch of the brush, which is unavoidable where a brush is in the ordinary manner dragged from one side to
80 the other.

In making portraits or other pictures in which lace or other fabric is to be represented artists have heretofore found the production of the appearance of the lace or fabric to be by far the most difficult part of the work,
85 while a representation of the texture of the material—such as would bear close inspection—has been an impossibility, even with the expenditure of a great amount of care, labor, and time. To overcome this difficulty and
90 defect in the method, as heretofore used, I proceed in the following manner to secure easily and quickly a perfect representation of the texture and appearance of any lace, tulle, mantillas, or other fabric to be shown
95 in the picture. Having determined the outline of the portion of lace or fabric to be copied at one time, I cut a piece of paper so that it will have an opening in it whose inner edges correspond with said outline, and then hav-
100 ing wet it, so as to render it more flexible and capable of following out the design of the fabric, I stick a piece of lace, tulle, or other material, corresponding in appearance and text-

ure with that to be represented over the paper, so that it stretches across the opening therein. Any required folding of the piece of fabric to make it correspond in arrangement with the original is done before said piece is fastened to the paper frame or holder. A weak solution of gum-arabic is then rubbed over the fabric and allowed to dry. This stiffens the lace or other material, causes it to remain as arranged or folded, and prevents the fibers thereof from taking up any of the greasy paste applied, as set forth hereinafter, and transmitting it or the oil therein to the portrait-receiving surface upon which the fabric may be placed. The paper carrying the piece of fabric is then placed with its opening over the spot upon which the fabric is to be copied and fastened there by tacks or other means, as desired. With a camel's-hair brush—such, for instance, as is used in varnishing—I rub some of the described greasy paste or paint on a pasteboard palette until it is somewhat dry, and then go over the fabric in such way that the hairs of the brush will work in through the meshes of the fabric and apply the paste to the surface below the latter. Greater or less strokes of the brush are made, according as a greater or less degree of shading is required, while for the finer strokes and more delicate shading needed to secure the most perfect representation of the appearance of the fabric smaller brushes can be used.

The paper frame or holder to which the piece of fabric is attached, not only serves to hold the latter in place while it is being copied, but also effectually prevents any of the paste or paint from being applied by accident to any part of the picture-receiving surface outside of the portion upon which the fabric is to be portrayed. The result, seen after the piece of lace or other fabric has been gone over with the brush or brushes and greasy paste or paint and removed, is an exact representation of the texture of the fabric or the meshes of the lace such as could not be produced by hand in any way heretofore known to artists.

With the greasy black paste or paint as used by me the work, which in appearance resembles a fine engraving in which the black tints are quite deep, fixes itself and does not need any subsequent treatment for fixing, as in the case of drawings and crayons. Where lace or mantilla is to be copied, I prefer to cut the opening in the holding-paper so that its inner edge will have the exact outline of the ornamental border or edge of the material, but do not limit myself to such construction, as one or more edges of said material can be within or at a short distance from the side of the opening in the paper.

The production of any desired degree of shading in any part of the representation of fabric can, obviously, be easily secured by heavier or lighter strokes of the brush or brushes, so as to apply more or less of the

paste or paint used to the surface below the piece of fabric used, as set forth hereinbefore.

With the lace or other material treated with gum-arabic, as described, it is possible to use it repeatedly, and as gum-arabic keeps the greasy paint from the fibers of which the material is made the latter can easily be cleaned and prepared for use in some other way, as in producing another picture where the arrangement of the drapery is different. I am then enabled to use a piece of lace or other fabric indefinitely in reproducing one picture or making different ones, and do not, in doing so, destroy or spoil the lace so that it cannot be afterward employed in other ways. If said piece of fabric has folds or wrinkles, the copy of them on the picture-receiving surface can be touched up, as desired, with a brush after the pattern has been removed.

By the part of my process as just above set forth the great difficulty of making portraits or other pictures in which lace, tulle, mantillas, or other fabrics had to be shown is done away with, and the exact representation not only of the general appearance, but even the texture of the fabric, is made one of the easiest, simplest, and most certain parts of the work. I have then reduced the time, labor, and care necessary for the production of a picture containing a representation of lace or other fabrics to a minimum, and have consequently made the expense of such pictures far lower than was heretofore possible.

By my whole process, employing the greasy paste or pigment in the manner and with the brushes, as specified, I have found in practice that a portrait or other picture can be easily and cheaply produced which in appearance and the softness of its tints and half-tints is closely comparable to a fine engraving.

Having thus described my invention, what I claim is—

1. As an improvement in the art of making portraits or other pictures, the method of producing softness of tint and shading resembling that of an engraving, which consists in filling in the various parts of the picture by means of a suitable brush or brushes rubbed nearly dry in a greasy paste or pigment, substantially as and for the purpose specified.

2. As an improvement in the art of making portraits or other pictures, the method of making the large background and heavy details of clothing, which consists in employing a brush rubbed nearly dry in a greasy paste or pigment and striking such brush endwise against the picture-receiving surface, so that the points or ends of the bristles are driven against said surface, substantially as and for the purpose shown.

3. As an improvement in the art of making portraits or other pictures, the process in the carrying out of which the various parts of the picture are filled in by means of a brush or brushes supplied with the desired color in

the form of a greasy paste, and the representation of lace, tulle, or other fabric is produced by placing a piece of material similar to the fabric in texture over the picture-receiving surface and working the coloring substance in through the meshes of the material upon said surface, substantially as and for the purpose set forth.

4. As an improvement in the art of making portraits or other pictures, the process in the carrying out of which the various parts of the picture are filled in by means of a brush or brushes rubbed nearly dry in coloring-matter in the form of a greasy paste, and the representation of lace, tulle, or other fabric is produced by placing a piece of material resembling the fabric in texture over the picture-receiving surface, and with a brush or brushes rubbed nearly dry in the greasy coloring-paste going over the material so as to work the coloring-matter in through the meshes of the material upon the surface below, substantially as and for the purpose described.

5. As an improvement in the art of making portraits or other pictures in which lace, tulle, or other fabric is to be shown, the process which consists in taking a piece of material like the fabric to be copied, applying it to a frame or holder adapted to protect the parts of the picture-receiving surface adjoining the portion upon which the fabric is to be represented from the greasy paste or pigment to be used, treating the material with gum-arabic, placing it over the picture-receiving surface, going over it with a brush supplied with a greasy paste of the desired color worked nearly dry, and filling in the other parts of

the picture with suitable brushes or other devices, also supplied with a greasy paste or pigment of the required color, substantially as and for the purpose shown and described.

6. As an improvement in the art of making portraits or other pictures in which lace, tulle, or other fabric is to be shown, the method of producing a representation of the fabric, which consists in placing over the picture-receiving surface a piece of material like the fabric and applying any desired coloring-matter to the surface through the meshes of the material, substantially as and for the purpose specified.

7. As an improvement in the art of making portraits or other pictures in which lace, tulle, or other fabric is to be shown, the method of producing a representation of the fabric, which consists in cutting out a paper pattern having an opening to display only the portion of the picture-receiving surface upon which the fabric is to be represented, taking a piece of material resembling said fabric in texture, placing it upon the paper pattern, treating it with gum-arabic, placing the pattern and fabric over the picture-receiving surface, and going over the material with a brush or brushes supplied with a greasy paste of the desired color, substantially as and for the purpose set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 29th day of April, 1891.

FRANCISCO PIERA Y DE MATA.

Witnesses:

JOSEPH A. SPRINGER,
ADOLFO SANCHEZ DOLZ.