

# UNITED STATES PATENT OFFICE.

FRANCIS L. MITCHELL, OF ST. JOSEPH, MISSOURI.

## PROCESS OF COLORING AND FINISHING PHOTOGRAPHS.

SPECIFICATION forming part of Letters Patent No. 233,944, dated November 2, 1880.

Application filed February 19, 1880.

*To all whom it may concern:*

Be it known that I, FRANCIS L. MITCHELL, of St. Joseph, in the county of Buchanan and State of Missouri, have invented a new and valuable Improvement in the Art of Coloring and Finishing Photographs or any Kind of Paper or Cloth Pictures; and I do hereby declare that the following is a full, clear, and exact description of the operation of the same.

10 This invention has relation to the preparation and finishing of photographic pictures; and it consists, mainly, in the process of prior painting or stippling, or both, the treatment with a hot compound of white wax, benzole, balsam of fir, turpentine, white dammar varnish, 15 and sperm-oil, the coating with linseed-oil and turpentine, the after-coloring on the back, and the backing first with jaconet, thin cloth, or paper, and afterward with sheeting, well 20 painted with good white lead, all as herein-after fully shown and described.

In order to carry out the details of this process, I take a good clean paper photograph and mount it on jaconet, thin cambric, or fine paper, (after having boiled the jaconet or cambric in a weak solution of sal-soda a few minutes and stretched and dried the same,) then all surplus paste used in the mounting is wiped or scraped off. After drying the photograph 30 is subjected to the first coloring and stippling on its face, and is then treated with a solution of two ounces of turpentine, one and one-half ounce of the best sperm-oil, one-quarter of an ounce of balsam of fir, and one ounce each of 35 benzole, white wax, and white dammar varnish, which is applied one or more times hot to the back only until the picture is very transparent. Then I scrape off the composition, and coat the back with a mixture of linseed-oil and 40 turpentine, equal parts of each, and dry thoroughly. The next step is to subject the photograph to the second or after coloring, in

which the required colors are applied on the back very thin, being thinned with a mixture of equal parts of turpentine, white varnish, 45 and linseed-oil.

In applying the colors several coats are usually employed, in order that the coloring may acquire sufficient depth.

After the back painting is thoroughly dry 50 and hard the photograph is backed with the second backing, which consists of sheeting prepared by stretching it on a frame and painting it with several coats of good white paint as generally mixed for ordinary work, a little 55 white varnish being put in the paint as a drier. This prepared sheeting is dried, and, after it has been brushed over with a thin solution of the varnish and oil, pressed on the back of the photograph with a light roller or other 60 suitable device. It will adhere closely to the painted back, and will protect it thoroughly, besides giving depth and body to the lights in the coloring.

Having described this invention, what I 65 claim, and desire to secure by Letters Patent, is—

The process of coloring and finishing photographs, consisting, first, in mounting the same on jaconet or thin cambric, then painting and 70 stippling the face, then applying to the back a hot transparent solution of white wax in turpentine, sperm-oil, balsam fir, benzole, and white dammar varnish, then coating with linseed-oil and turpentine, then applying color 75 to the back, and finally backing with sheeting painted with white lead, as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

FRANCIS L. MITCHELL.

Witnesses:

THOMAS S. SMITH,  
E. GOOD.