

# UNITED STATES PATENT OFFICE.

RALPH MARTIN, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO  
HOPEWELL CLARKE, OF SAME PLACE.

## PROCESS OF PRINTING PHOTOGRAPHS ON TEXTILE FABRICS.

SPECIFICATION forming part of Letters Patent No. 532,173, dated January 8, 1895.

Application filed March 2, 1894. Serial No. 502,081. (No specimens.)

### *To all whom it may concern:*

Be it known that I, RALPH MARTIN, of St. Paul, Ramsey county, Minnesota, have invented certain Improvements in Processes of  
5 Printing Photographs on Textile Fabrics, of which the following is a specification.

My invention relates to improvements in photography, its object being to secure a process for photographing upon porous or absorbent surfaces or fabrics, such as silks and similar materials, in such manner that the photograph or print constitutes an indelible dye, penetrating and permeating the tissue or body of the fabric itself, so that with thin  
15 fabrics the print is practically the same on both sides.

To this end my invention consists in preparing the fabric to receive the print, by the use of materials soluble in water, which are  
20 afterward washed entirely out of the fabrics, leaving the print as a permeating dye in and upon the same. I prefer to do this in the manner and with the means hereinafter described.

25 The fabric is first soaked for ten or fifteen minutes in a translucent presensitizing preparation composed of gum arabic, four grams, salt, one gram, dissolved in one hundred and twenty-three cubic centimeters of distilled  
30 water. The fabric is then thoroughly dried and floated face down, for from two to five minutes according to the atmospheric temperature, upon a sensitizing solution composed of ten grams of nitrate of silver dissolved in eighty cubic centimeters of distilled  
35 water. The fabric is then dried a second time and is ready to receive the print.

The process of printing is substantially the same as upon albumen paper, but with relatively longer exposure, that is to say, the exposure should be continued until (with moderately thin fabric), the print is as deep on the back of the fabric as it is desired to ap-

pear on the face after the subsequent processes of toning and fixing. The print is afterward completed in substantially the ordinary manner.

I claim—

1. The herein described process of photographing upon a porous or absorbent fabric, consisting in first treating the fabric with a pre-sensitizing composition containing gum arabic and a chlorid, then sensitizing the same, then subjecting it to the printing process, and then washing it until the water-soluble portion is entirely removed.

2. The process of producing positive photographs in and upon a fabric, consisting of first preparing the fabric with a solution of gum arabic and salt, then sensitizing it by means of a solution of nitrate of silver, then exposing it for the production of the photograph, then washing away the solutions, then developing, toning and fixing in the usual manner.

3. The herein described improved photographic process, consisting of first soaking the fabric in a solution of gum arabic and salt, then drying the same, then floating it upon a solution of nitrate of silver, then drying the same, then printing and washing away the solutions.

4. The herein described improved process of photographing upon a porous or absorbent fabric, consisting of first treating the same with a solution of gum arabic and salt, then sensitizing it with a solution of nitrate of silver, and then drying, printing and washing the same.

In testimony whereof I affix my signature in presence of two witnesses.

RALPH MARTIN.

Witnesses:

JAMES ROAN,  
T. D. MERWIN.