UNITED STATES PATENT OFFICE.

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PHOTOGRAPHIC FABRIC AND PROCESS OF PREPARING SAME.

SPECIFICATION forming part of Letters Patent No. 696,632, dated April 1, 1902.

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To all whom it may concern:

Be it known that I, PROSPER MARIE CONSTANT GRENIER, a citizen of the French Republic, residing at No. 34 West Thirty-third street, in the borough of Manhattan, in the city and State of New York, have invented certain new and useful Improvements in Photographic Fabrics and the Process of Preparing Same, of which the following is a description.

The object of the invention is to produce a fabric for use in photographic processes, and more especially in the photographic production of tapestries, portraits, and pictures on silk and decorative designs on fabrics in colors or in light and shade; but the invention concerns mainly the preparation of the fabric ready for sensitizing and the prepared fabric so produced.

By the term "fabric" it is not meant to restrict the invention to woven fabrics, but, on the contrary, it is meant to include paper and similar materials made from fibers.

Briefly stated, the process consists in part in the use of certain substances extracted from the white algæ *Chondrus crispus* with certain other agents in common use in photography.

The novel features of the invention will be best understood by describing one preferred way of utilizing the process and of manufacturing the new fabric. If desired to make sixteen liters of solution for treating the fabric, it is accomplished by the following procedure: Place one hundred and twenty grams of dried Irish moss (*Chondrus crispus*) in thirty-two liters of cool water and gradually heat the water until it boils, which ordinarily takes some fifteen or twenty minutes by the procedure employed. Then stop the application of heat and let the solution stand about five minutes. Then into a sixteen-liter vessel in which one hundred and sixty grams of citric acid have been placed draw off through a fine sieve or coarse filter about sixteen liters of the algæ solution or extract, taking it preferably from near the bottom of the vessel, and mix this with the one hundred and sixty grams of citric acid and add two hundred and forty grams of ammonium chlorid. The remaining portion of the algæ extract is discarded, as it is too thick.

Silk is treated with the solution by immersing it for a few minutes in a flat sheet, so as to expose all its surfaces evenly to the solution. Then the silk is dried and it is ready for sensitizing by immersing it in any suitable sensitizing-bath. Upon again drying the fabric it is ready to be photographically printed from a negative in the usual manner. The photographs so produced on the silk are admirably adapted for coloring. The fabric does not show the presence of any film resembling a gelatin or albumen film. On the contrary, the white portions of the silk in the finished picture look precisely as the silk looked before being treated.

Tapestries, particularly thick tapestries, may be wet on one side only in the solution by being laid face down in the shallow tray containing the solution.

Considerable latitude in proportions are permissible in carrying out the invention; but it will be found that the proportions stated give the best result.

Without attempting to set forth what other algæ are the known equivalents of *Chondrus crispus* or yield the same or similar extracts, *Chondrus crispus* is named as being the only one that has been found to be entirely satisfactory for the purpose.

What I claim, and desire to secure by Letters Patent, are the following novel and characteristic features of my invention:

1. The process of preparing fabric for photographic uses, by applying to the fabric a solution containing the aqueous extract of the white algæ and subsequently sensitizing, and drying the fabric.

2. The process of preparing fabric for photographic uses, by mixing extract of white algæ, citric acid, and ammonium chlorid, then

wetting the fabric with the solution, then drying it, then applying a sensitizing solution, and finally again drying it.

3. A prepared sensitized fabric for photographic processes, characterized by its being impregnated with white-algæ extract and by the presence of a sensitizing substance.

4. A prepared fabric for photographic processes, characterized by the presence of the dried product evaporated from a mixture of extract of white algæ *Chondrus crispus*, citric acid, and ammonium chlorid.

Signed this 16th day of April, 1901, at New York, N. Y.

P. M. C. GRENIER.

Witnesses:
HENRY SAMUEL MORTON,
HAROLD BINNEY.