## UNITED STATES PATENT OFFICE.

WILLIAM C. SOUTH, OF BERWYN, PENNSYLVANIA.

## COLOR PHOTOGRAPHY.

No. 827,188.

Specification of Letters Patent.

Patented July 31, 1906.

Application filed November 4, 1903. Serial No. 179,815.

To all whom it may concern:

Be it known that I, WILLIAM C. SOUTH, a citizen of the United States, residing at Berwyn, in the county of Chester and State of Pennsylvania, have invented certain Improvements in Color Photography, of which the following is a specification.

This invention has as its object the production of an improved paper or other substance treated or coated suitably for photographic

printing.

It is primarily designed for the production of a prepared surface suitable for printing color photographs by my improved process in which a colored bichromatized colloid coating is printed and the image thus formed coated with a transparent solution which prints in blue a registered image of the same object.

In carrying out my present invention such papers as Whatman's for artistic effect or baryta for commercial use or any other suitable material is coated with a red-colored animal-glue emulsion, suitably half-water and half-colloid, either sensitized by the use of an alkali bichromate or very slightly hardened by the use of alum or any like substance and sensitized at any future time, this being read-

ily done without streaking the color.

I have found that Le Page's fish-glue produces superior results, while substantially spectrum red coloring-matter, such as natural or artificial alizarin, rose-madder, or the like, produce the best color effects, particularly for the base-print in three-color photography; but other colors may be used in forming this

ground substance, particularly in my bicolor process of making photographs in which the ground print is made of the color required for producing the proper effect in its combina- 40 tion with the subsequently-applied transparent coating for printing the image in blue thereon.

The material coated with the pigmented fish-glue emulsion containing a trace of alum 45 may be sensitized at any time after coating with the emulsion by floating it upon a tenper-cent. solution of potassium, ammonium, or sodium bichromate, or the substance may be sensitized, in the first instance, by the introduction of the alkali bichromate preferably containing a trace of glycerin, which retains the proper softness.

Having described my invention, I claim—
1. The improvement in color photography 55 comprising a suitable paper treated with glue, coloring-matter and an alkali bichromate.

2. The improvement in color photography comprising a suitable substance treated with fish-glue, coloring-matter and alum, substan- 60 tially as specified.

3. The improvement in color photography comprising a suitable substance treated with fish-glue, coloring-matter, alum and an alkali bichromate, substantially as specified.

In testimony whereof I have hereunto set my hand, this 3d day of November, A. D. 1903, in the presence of the subscribing witnesses.

WM. C. SOUTH.

In presence of— Thomas S. Gale, Utley E. Crane, Jr.