

UNITED STATES PATENT OFFICE.

REDFIELD B. WEST, OF GUILFORD, CONNECTICUT.

PHOTOSENSITIVE COMPOSITION.

SPECIFICATION forming part of Letters Patent No. 625,527, dated May 23, 1899.

Application filed December 24, 1898. Serial No. 700,283. (No specimens.)

To all whom it may concern:

Be it known that I, REDFIELD B. WEST, of Guilford, in the county of New Haven and State of Connecticut, have invented a new Improvement in Sensitizing Paper for Photographic Printing; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to an improvement in sensitizing paper for photographic printing, the object of the invention being to produce a composition for sensitizing paper which may be readily compounded, which is quick in action, easy to prepare, inexpensive, and from which prints may be produced having the appearance of those made on platinum-paper, with the advantage over the latter that the paper is blackened by light and so that the printing can be watched as it proceeds without timing it, and whereby the prints may be made in less time and with the exercise of less skill; and the invention consists in sensitizing paper with the composition hereinafter described, and particularly recited in the claim:

The paper employed may be of the usual character, and the sensitizing compound consists of ammonium nitro-ferricyanid twenty-five parts, ammonium ferric citrate thirty parts, and water one hundred parts. To this may be added small quantities of other citrates for the purpose of modifying the color of the prints—for example, the magnesium citrate to produce an engraving black or the zinc citrate for a brown. These, while not absolutely necessary for the success of the sensitizing paper, are of use for producing certain tints. Other soluble nitro-ferricyanids, such as sodium nitro-ferricyanid or potassium nitro-ferricyanid, can be substituted for the ammo-

nium nitro-ferricyanid; but they are not as sensitive to light as is the ammonium nitro-ferricyanid, which is therefore to be preferred. Paper coated with this sensitizing compound is sensitive to light, by exposure to which it becomes brown or black, so that when exposed to light under a negative in the usual manner for printing photographs a picture in light and shadow is produced on the paper. This print is then washed in water for two or three minutes to remove superfluous chemicals and then subjected for five minutes to a bath containing a mordant like the lead subacetate in twenty-per-cent. aqueous solution for the purpose of rendering the print permanent. For this bath any other well-known bath for fixing the print may be employed. No further manipulation is necessary except a slight washing of the print in water.

The proportions given in the foregoing formula have been found in practice to give good results; but they may be varied to some extent without materially changing the result. I do not therefore wish to be limited to the precise proportions named.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The herein-described composition for sensitizing paper, consisting of a soluble nitro-ferricyanid, ammonium ferric citrate and water, in the proportions substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

REDFIELD B. WEST.

Witnesses:

FRED. C. EARLE,
LILLIAN D. KELSEY.