

UNITED STATES PATENT OFFICE.

JEREMIAH GURNEY, OF NEW YORK, N. Y.

IMPROVEMENT IN PROCESSES OF COLORING ENAMELED PHOTOGRAPHS.

Specification forming part of Letters Patent No. **157,510**, dated December 8, 1874; application filed July 28, 1874.

To all whom it may concern:

Be it known that I, JEREMIAH GURNEY, of the city, county, and State of New York, have invented a new and Improved Process for Coloring Enameled Photographs, of which the following is a specification:

The object of my invention is to so improve that class of photographs recently introduced under the names of "enameled photographs," "portraits glacés," or "souvenir pictures," by means of a suitable process, that they may be produced in colors and finished with such delicacy and permanency of colors that a very superior and elegant article is obtained, and the application and scope of this branch of photographic art thereby greatly enhanced. Hitherto all attempts of coloring these enameled photographs have failed on account of the gelatine or other binding material employed for connecting the photograph with the collodionized or enameled surface. The various methods of producing photographs in colors have been found entirely inadequate, as the colors could not resist the dissolving action of the gelatine or binding substance when placed on the photograph, so that these pictures, although they have become very popular, could only be executed in the common uncolored photographic tints.

My invention relates to a process for coloring these photographs, and consists in applying and fixing the colors previous to the connection of the picture with the enameled surface or covering by means of the gelatine or other binding substance.

The photographs are retouched and colored on the front side in the usual manner, and then rendered transparent by the application of a suitable mixture of white wax and kerosene, or of either one alone, or of similar ingredients producing transparency. Thereby the touching or colors are already fastened to some extent to the front side of the picture. A thin coat of glycerine or similar fixing substance is then applied to the front side of the picture, for fixing the colors and protecting them completely against the action of the gelatine, into which the picture is immersed, and

then, face downward, placed on the collodionized plate-glass. The gelatine or binding substance forms the connection of the photograph and the collodionized surface. The excess of gelatine is then gently pressed out and the whole dried and hardened, being ready to receive the finishing coloring on the back of the picture. As the picture is transparent, it may be worked up with equal facility as on the front side without the risk of losing the likeness, while the colors appear with an exquisite softness and delicate finish. One or more thicknesses of card-board soaked in warm gelatine are next placed on the back of the picture and the whole dried again, to be then cut around the edges for taking it with the enameled surface off the glass plate, the enameled surface adhering firmly to the photograph and protecting the same, so as to render the colors very durable and impart a peculiar delicate and finished appearance to the same.

The photographs may also be colored entirely on the front side without being made transparent, glycerine or other fixing substance being employed to protect the colors and prevent their removal or disturbing on being soaked in gelatine and applied to the outer enameled surface. The former process is, however, safer and more satisfactory in its results, and therefore to be preferred, as, without risk, uniformly and delicately finished pictures may be produced.

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

The improvement in the process of producing enameled photographic pictures in colors, consisting, essentially, in the application of a protecting layer of glycerine or equivalent fixing substance, interposed between the applied colors and the usual gelatine coating employed as a binding, and for connecting the photograph to the collodionized surface, substantially as described.

JEREMIAH GURNEY.

Witnesses:

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T. B. MOSHER.