

UNITED STATES PATENT OFFICE.

DANIEL DAVIS, JR., OF BOSTON, MASSACHUSETTS, ASSIGNOR TO JOHN PLUMBE, JR.

IMPROVEMENT IN COLORING DAGUERREOTYPE-PICTURES.

Specification forming part of Letters Patent No. 2,826, dated October 22, 1842.

To all whom it may concern:

Be it known that I, DANIEL DAVIS, Jr., of Boston, in the county of Suffolk and State of Massachusetts, have discovered a new and useful Improvement in Daguerreotype-Pictures, by which their surfaces are protected more or less from injury and various degrees or shades of different colors imparted to them, giving to them a life-like or natural appearance, and a general improvement in their lights and shades effected, the following being a full and exact description of said improvement.

The process of producing daguerreotype or photographic portraits or other pictures being well understood, I shall confine myself to my method of effecting the above-mentioned improvement in them, which is as follows: After the photographic surface is properly produced upon the metallic tablet it is immersed in a solution composed of sulphate of copper, water, and cyanuret of potassium, or one of chloride of gold dissolved in water, with the addition of cyanuret of potassium, or a solution made by dissolving gold in aqua regia and then adding cyanuret of potassium; or in one composed of chloride of silver dissolved in a solution of cyanuret of potassium, according to the color or colors it is desirable to produce upon the picture. The negative wire of a magneto-electric machine or galvanic battery of sufficient intensity should then be applied to or connected with the plate or tablet while the positive wire is immersed in the solution. The result of this operation will be a combination of copper, gold, silver, &c., according to the solution employed, with the photographic surface, and to such degree as circumstances may require. If I am operating upon a daguerreotype-miniature, and wish to produce a deeper shade of color upon the face than upon the body or dress, the extremity of the positive pole or wire of the battery should be held longer in contiguity with the face than with the body of the image. A discoloration of the face will thus take place.

Then, if it is desirable to produce a different color upon the coat or other part of the picture, the plate is to be taken out of the solution and similarly immersed in another, which is calculated to produce the requisite color. Thus one uniform color or shade may be obtained over the whole surface of the picture, or different parts thereof may be colored, as above set forth. The positive pole or wire of the battery thus becomes the pencil by which the image may be tinted, while the deposit formed upon the plate by this operation, combining with the chemical or photographic surface of the picture, produces a transparent color.

The above process greatly assists and improves the photographic production of light and shade, while at the same time it fixes the picture in a manner more or less approaching to indelibility, according to the amount of color deposited. There are other metallic solutions well known to chemists which may be used in the above manner for producing similar effects upon a photographic picture.

What I claim as my invention and discovery, and desire to secure by Letters Patent, is—

1. Depositing metals from their solutions upon the daguerreotype-pictures for the purpose of giving them the desired tint by connecting the pictorial plates with the negative pole of a galvanic battery or magneto-electrical machine and immersing them in the above solutions or any other known solutions of metals, in the manner above described, or any other substantially the same.

2. In combination with the above process, the mode of tinting certain part or parts of the pictures, all as herein set forth.

In testimony that the foregoing is a true description of my said discovery I have hereto set my signature this 20th day of September, in the year 1842.

DANIEL DAVIS, JR.

Witnesses:

R. H. EDDY,

EZRA LINCOLN, Jr.