

UNITED STATES PATENT OFFICE.

JOEL H. TATUM, OF BALTIMORE, MARYLAND.

PREPARATION OF OIL-GROUND TO RECEIVE PHOTOGRAPHIC IMPRESSIONS.

Specification forming part of Letters Patent No. **14,679**, dated April 15, 1856.

To all whom it may concern:

Be it known that I, JOEL HAYWOOD TATUM, of the city of Baltimore and State of Maryland, have discovered or invented a new and useful mode or process by which photographic impressions—such as portraits of all sizes, landscapes or still-life—may be produced upon oil-prepared bodies or surfaces, whether upon canvas, mill-board, panel, or other body whatever, without any permanent injury to such body, ground, or surface, for the reception of colors in oil (water) or dry, (pastel,) without impairing the texture, quality, durability, or other desirable quality of the body, ground, or surface rendered impressible, and give the following as the process used in accomplishing the result:

I take ordinary prepared canvas, mill-board, panel, or other substances prepared for the reception of oil-paintings by any composition of oil and oxide of lead or zinc, Spanish whiting, or fuller's earth, singly or in combination, and after having removed all irregularities or lumps from the surface I damp or wet the surface with spirits of wine and wipe clean, after which I treat the surface with a solution of potassium or any good alkali, regulating the strength by the amount of oil in the body of surface, (ordinarily one ounce supercarbonate of soda to one pint of water.) As soon as the surface has uniformly changed color, allow the surplus solution to run off. Wash off by pouring over the surface clean water. Let dry, but not by the fire or in the sun. When dry damp or wet the surface again with a solution of chloride of sodium. Let dry as before; then spread over the surface a solution of nitrate of silver, (its strength being governed by the strength of impression desired,) using a dark room. When thoroughly dry place the negative picture (which must previously have been ob-

tained by the use of the camera, either on collodion or albumen upon glass or upon paper) upon the canvas in the position the painting is desired, with the face of the negative to the surface to receive the impression. If the negative does not cover the whole surface, then a mat should be used, so as to extend to the edge of canvas-board. Make everything secure and expose to the light. When exposed sufficiently remove the negative in dark room, (lighted with lamp.) Dash over the impression a weak solution of hypersulphide of soda. Let stand a few moments and wash off with a very dilute acid, of only sufficient strength to neutralize the alkalies remaining upon the surface. Instead of using the negative, the camera may be used, giving a positive, which, after the impression is made, is treated as the negative. The picture, when dry, is then ready for the artist's brush, to give it such finish and color as his taste may dictate.

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

The mode of preparing and rendering oil-prepared surfaces impressible or sensitive to the photographic art by the temporary destruction or chemical change of the oil on the immediate surface by the use of the spirits of wine and alkaline solution, and then the fixing the impression by the use of hypersulphide of soda and diluted acid, by which last application the alkalies are neutralized and the oil restored, with the impression permanent upon the surface, disclaiming everything heretofore known or practiced in the production of photographic pictures on paper or any uncoiled surface.

JOEL HAYWOOD TATUM.

Witnesses:

ISAAC P. COOK,
JNO. F. MCJELTON.