

UNITED STATES PATENT OFFICE.

JOSEPH KIRK, OF NEWARK, NEW JERSEY.

IMPROVEMENT IN PHOTOGRAPHIC NEGATIVES.

Specification forming part of Letters Patent No. **136,439**, dated March 4, 1873.

To all whom it may concern:

Be it known that I, JOSEPH KIRK, of Newark, in the county of Essex and State of New Jersey, have invented a new and Improved Method of Making Photographic Negatives, of which the following is a specification:

My invention consists in coating a glass plate on both sides, or coating two plates and putting one at the back of the other, with collodion, or any other compound used in producing negatives for photographic purposes, whereby when the plate or plates are exposed to the subject to be photographed, and developed in the usual way, a faint image is produced on the back of the plate or on the second plate in addition to the image on the front, which has the effect of blending the highest points of light gradually with the shadows of the printed photograph, giving a beautiful, soft, and porcelain-like effect, and saving a great amount of labor in retouching negatives for portraiture.

In carrying out this improvement I make a little modification in the collodion—that is, I make it a little thinner for the coating on the front side—so as to get a thinner film, which will transmit the light onto the back film more readily, at the same time making a softer picture with a finer definition on the front, and, by aid of the faint impression on the back, it gives sufficient strength to give the right contrast of light and shade to make a finished brilliant print, free from the hardness so often seen in photographs, and also tends to shorten the time of exposure in the camera, a very important item in photographic portraiture.

In order to accomplish my purpose I prepare two bottles of collodion, the one sensitized in such a way as to give rather a bluish or transparent film for the front side of the

plate; the other bottle is sensitized in the usual way, only more alcoholic, to prevent it from setting too quickly while coating the plate on both sides. This last I use for the back of the plate.

In the mode of operating, I pour the collodion on the back of the plate first, and then on the front as quickly as possible, to prevent the first side so coated from drying too much while coating the other; then I place it on the dipper in such a way as to protect the film from getting injured while being immersed in the nitrate bath; I then put it in the plate-holder, and back it up with another plate provided with four buttons on the corners, so as to protect the back film from being damaged by the door of the plate-holder; then I expose in the camera and develop both sides of the plate by dipping or pouring on the developing-solution. The great object and effect consists in the production of a double image at one exposure, and using those two images to produce one single picture, the coating of the plate on two sides being only a stepping-stone to this result.

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

A photographic negative, consisting of one or two glass plates, having the collodion or other chemical film applied to both sides of a plate when used singly, or to one side of each of the two plates when used together, substantially in the manner and for the purpose specified.

JOSEPH KIRK.

Witnesses:

T. B. MOSHER,
ALEX. F. ROBERTS.