

stance to free it from dust, and slide it immediately over the iodine. Coat to a dark orange, just bordering on a rose color, then over the quick to a soft rose red, then back over the iodine about one-tenth as long as first coating, and place it in the tablet immediately, without the least exposure to light.

—•••—

PICTURES ON PLATE-GLASS,
IVORY, AND WOOD.

M. NIEPCE ST. VICTOR has obtained images of the sun and moon, on beds of albumen, rendered sensitive by an accelerative process. These photographic portraits confirm the opinion before stated by M. M. Fizeau and Foucault, that the centre of the sun gives out rays of a greater photogenic power than those of the sides. This is an important addition to our knowledge of that planet (the sun); it being now to a great extent admitted, that although an incandescent mass, it is still in process of cooling, and forming a hard crust, like the earth and moon. For obvious reasons the points of repose would cool soonest, and thus poles of cold would be produced. The sun appears to approach this condition of cooling of its poles, as less rays of light are sent off from those points than from its equator. The statement of St. Victor, that rays of *less photogenic power* are given off, is synonymous with a *total quantity of radiant matter* emitted being diminished.

A Mr. Malone, in repeating Niepce St. Victor's albumino-photographic experiments, has been led to adopt a somewhat peculiar plan of making glass negatives. To the white of an egg he adds an equal bulk of water, beats it into froth, and passes it through a paper strainer, having a fine aperture below, into a wide-mouthed bottle. He then rubs caustic alkali on plate glass, washes off with, and dries with a cloth; breathes on the glass and rubs with new blotting paper, and then with cotton wool, to remove dust. Unless this latter be prevented, the absorption of iodine will be

greater, producing spots. The albumen is then poured on the glass, inclining the plate from side to side, and then holding it vertical, to pour off the excess. The plate may be warmed to drive off the last remains. The film when dry should be quite free from cracks, and so thin as not to destroy the transparency of the glass. It is almost necessary to mark the latter, to know which side the coating has been made. The plate has now to be iodized.

Iodine diluted with dry white sand is placed in a glass trough, and the plate above it. As soon as the latter becomes yellow, resembling well-stained glass, remove it into a room lighted by a candle, or by ordinary light passed through yellow calico. Plunge the plate then vertically and rapidly into a narrow and deep trough having a solution of aceto-nitrate of silver, made of 3 oz. of nitrate of silver, 2 oz. of acetic acid (glacial), and 60 oz. of distilled water. The plate should remain till the yellow tint disappears, and a cloudy white iodide of silver films the glass. The plate should then be washed with pure water, and is ready for the camera. After exposure, treat the plate with a strong solution of gallic acid, and complete by washing with hyposulphite soda. A negative Talbotype is thus produced.

If while the gallic acid is changing the picture to red brown, a strong solution of nitrate of silver be poured on, the picture deepens in intensity until it becomes quite black. It does not stop at this, for the image begins to grow lighter, and finishes by converting the black into white, and thus apparently converts a negative Talbotype into a positive Daguerreotype, without the aid of mercury: the silver probably producing the lights, while in the Daguerreotype it forms the shades. The exact change, however, is not fully understood.

Professor Wheatstone suggests, that blackened wood or ivory be used instead of glass, and thus the radiation so unpleasant in its effect would be obviated.