

the time over mercury in a corresponding proportion. A dark impression will be ruined by the quantity of mercury which would only improve a light one.

If practicable, it is most expedient that the plate be submitted to the action of mercury immediately on coming from the camera. We frequently, however, carry plates for miles in the plate-holders, and after exposing in the camera, bring them back to expose to mercury, and obtain fine proofs. Never replace a picture over mercury, as it is almost sure to produce a dense blue film over the shadows. This we are confident is occasioned by the action of light on the yet sensitive portions of the plate, and made to appear only by subsequent exposure to mercury, being equivalent to solarization.

We now add one of the most frequent causes of failure that all artists are subject to; this, as given by Mr. Daguerre, "consists in the changes of temperature in the atmospheric air, with which the plate is in contact from the first operation, to that of the mercury. It is well known that as often as bodies, when cold, are exposed to a warmer air, the humidity contained in it is condensed. It is to this effect that we must attribute the difficulty experienced in operating in a moist air, such as the atmosphere is, especially when you come to the operation of the mercury, which requires, to give out a proper vapor, a heat of at least fifty degrees centigrade.

"This vapor, which begins by heating the air contained in the apparatus, produces on the metal a mist which weakens the impression. It is very evident that this moist coating is very injurious; if, for example, you breathe several times on the plate, when it is taken out of the camera, the mercurial vapor will not bring out the image.

"The vapor, which becomes condensed even at the slightest difference of temperature between the surface of a body and the surrounding air, contains in suspension a non-volatile substance, which might be

called the atmospheric deposit; and, as soon as an equal temperature is established between the air and the surface of that body, the humid vapor which had condensed upon it becomes volatile, and, depositing upon it the sediment which it contained, mixes with the air and becomes again saturated with a new quantity of that impure substance, the deposit above named.

"In order to paralyze as much as possible this effect, the temperature of the plate may be kept higher than that of the air which surrounds it, during each of the operations. But it is not possible to carry this heat to fifty degrees, so that it may be at the same degree as the vapor of the mercury, because, if the plate is exposed to that degree of heat, after it has been subjected to the operation of the light in the camera, the image would be obliterated or spoiled.

"At first, I had attempted to absorb the humidity of the air in the mercury box, by the means usually resorted to for that purpose, such as lime, &c.; but these means proved insufficient, and only complicated the process, without giving any satisfactory results. Another means which has been proposed consists in vaporizing the mercury in the pneumatic machine; by this process, it is true, the mist on the plate is avoided; but the plate is thereby deprived of the pressure of the air which is indispensable to the formation of the image. Results thus obtained are never free from imperfections."

The mercury bath should always be kept covered for two reasons: First, to prevent the dust from falling into it; second, that the former may not saturate the atmosphere. This latter result is the only danger of injuring the health of those engaged in the profession. The cover should frequently be brushed.

---

The most dangerous enemy which the Daguerreotype has to contend with is incontestably human vanity.

---

Indifference is the best expression for a Daguerreotype.