THE DAGUERREOTYPE.

SIR,—I have just read the translation of M. Daguerre's pamphlet containing his directions for producing the photogenic drawings, of which he is the discoverer, and which have been so much admired by all those who have seen them. This translation is faithful to the original; but since this first pamphlet was written many improvements have taken place, and the method is much simplified. Your readers, I thought, might feel obliged to you if they found in your paper an explanation a little less scientific and technical than they find in the pamphlets written on the Daguerreotype. This last summer, being in the country, I amused myself Daguerreotypising, and a more delightful amusement never was invented: it is perfectly bewitching! and I wonder every lady in the land has not an apparatus, for it is particularly fitted for a lady's recreation. I will at once explain my way of proceeding, (and it is seldom that I spoiled a plate).

My first care was to see that every part of the whole apparatus should be quite clean and within reach—then nailed the silver plate to the wooden tablet, which fits the frame, lined with black velvet. M. Daguerre says that the silver plate is to be fixed on the tablet by means of silver bands and nails, but I found that a piece of cord cut in the shape of a triangle, and nailed at the four corners, answered full as well and saved the trouble of cleaning the bands every time they had been used. Another thing I omitted, finding it only a great trouble and no benefit reaped from it, I mean the oiling and heating of the plates, which is not in the least necessary when the plates are new. Fastened thus to the board by the pieces of cord mentioned, I took some clean cotton and rubbed the plate with it in a very light manner, constantly changing it as soon as it got black. I then took some Tripoli de Venise (now used instead of pumice-powder), and kept on rubbing with this for two or three minutes, then, when all the powder was rubbed off the plate, I put a drop of the prepared nitric acid on some clean cotton, and rubbing very fast, but very lightly, spread the acid all over the plate, taking great care that there should not be more acid on one place than another; then took some fresh cotton and continued to rub, always lightly, and in rounding the strokes which must always be attended to, till the plate recovers its brightness, add some more Tripoli de Venise, and rub till the plate is as bright and pure as a looking-glass. This operation takes about a quarter of an hour. The plate thus prepared, is ready to be exposed to the iodine. The iodine-box should be put in a dark room, and from that moment the least ray of light should not be allowed to reach the plate till the whole process has been gone through. The length of time the plate should be left in the iodine is very uncertain, and it is impossible to give any accurate direction on the subject. A little practice will soon put anybody au fait of any of these niceties.
This summer, when the thermometer was at 70 deg. in the room in which I worked, I generally left my plate in the iodine twelve minutes in the morning; and in the afternoon towards three o'clock, I found nine minutes sufficient. Within this fortnight I have done another drawing, and I found it necessary to leave the plate in the iodine thirty-five minutes; so much is this mineral subject to the variations of the atmosphere. I also found that turning the plate whilst in the iodine conducded to the equalization of the coating, which is very necessary for the production of a good drawing, but it must be done in the dark, for the iodine is so sensitive to the light that if a ray but touches the plate, it is sufficient to prevent the clearness which is so necessary for a good design. I should recommend this being particularly attended to. When the plate is supposed to be sufficiently impregnated with iodine, it is put into the frame which adjusts itself in the camera. The camera must be placed in front of the building or any other object of which we desire to obtain a representation. The most essential point in fixing the camera is a perfect adjustment of the focus; that is, making arrangements so as to obtain the outline of the subject with great neatness. This being done, the frame in which the plate is enclosed, is fixed in the camera. The inner doors are opened and the light is at work!

It is quite impossible to determine the time necessary for producing a design: this depending entirely on the intensity of the light on the objects, the imagery of which is to be produced. In a very fine day, when the sky was quite unclouded and the sun shone, I found five minutes quite sufficient to produce a very fine specimen; and again I have left it exposed for forty minutes, when there was no sun and clouds were darkening the sky, and obtained equal success. For this process, like that of the iodine, practice will enable any one very soon to judge to a nicety of the time necessary for the operation by taking notice of the intensity of the light, the absence of shadows, &c.

Thus far the process seems mechanical and tedious, rather than amusing; but from the moment you take the plate from the camera, the wonder begins. The plate is again excluded from light by shutting the doors of the frame; it is necessary that the last process should follow immediately the taking the plate from the camera. The apparatus containing the mercury must also be kept in the dark, the plate must be very carefully taken from the frame and slipped into the apparatus; the spirit lamp is then lighted and put under the mercury, and allowed to remain until the thermometer has reached sixty-five degrees. The lamp is then taken away. In a minute or two, if you look carefully, with a wax taper, through the glass fixed in the apparatus, you will see the most wonderful chemical experiment that can be shown. The plate, when taken from the camera, has certainly on it the impression of the subject to which it has been exposed, but it is invisible. If you were to look at the plate in taking it out of the camera, it would only show the coating of iodine, but no trace of a design. It is to bring out the impression that the plate is exposed to the fumes of distilled mercury. As I said, if you look after a few minutes through the glass (taking care not to throw too much light on the plate), you will see the faint tracey of objects beginning to appear. A slight cloud, the evaporation of the mercury, is seen turning over the plate, and, like the pencil of the artist, tracing most skilfully the outlines of the objects; every second marking new beauties, revealing new wonders. Eight minutes are hardly necessary for this operation. The plate is then taken out and submitted to its last process, which is to fix the impression by means of washing—hyposulphite is the best ingredient for use. I did not find common salt answering the purpose so well, though M. Daguerre recommends the use of it as being equally efficacious, for the removing the iodine from plates, as the hyposulphite. I would recommend the use of the latter, at the same time warning anybody who may make use of
it, not to fall into the same mistake I did. I was in a hurry to wash the plate, and hastily put the hyposulphite into the water, and almost immediately dipped the plate into it. The iodine flew off as usual, and my plate looked beautiful. The distilled water was then poured over it, and every thing looked right. In a few minutes, however, my plate began to show numberless black spots, and in a short time all the impression had vanished, and the plate was black! At first I was much puzzled by this occurrence, but at last recollected that most likely the hyposulphite, not having had time to dissolve entirely, small particles had been deposited on the plate which the boiling water had not been able to carry off, and which produced my disaster. I found that using the distilled water boiling answered better, as it dried sooner.

From all I have said, it might be fancied that it is a long business, but in reality it is not so: the whole hardly takes an hour, and I have often taken six and even seven impressions in one day. Among other things I tried to take likenesses, but I must acknowledge that the sun is no flatterer, and that features which, under the pencil of Ross or Paris, would be beautiful, are, to say the least, far from attractive. As a compensation for the homeliness of the features, the figure is rendered with inimitable truth. Several artists, to whom I showed some of the full lengths which I have done, have expressed their admiration of this part of the portrait. There is an abandon, a je ne sais quoi in the figure which is most difficult for the pencil to lay hold of, and which the Daguerreotype renders to perfection. I am told that M. Daguerre takes likenesses, in Paris, in less than a minute. I have never seen any of them. An American amateur has, according to his account, succeeded in taking likenesses in a most perfect manner. This seems to prove that many improvements in the method may still be found. We have also every reason to believe that the Daguerreotype plates may be engraved, just as they come from the hand of nature. M. Dormé [Donné—ed.] has tried the experiment and succeeded. But I find that my letter is already too long: if you think it worth inserting in your journal and you may wish to know something of M. Dormé’s proceeding, I shall be happy to communicate all I know on the subject.

I have the honour to be, Sir, &c.,

AN AMATEUR.

[End of text.]

EDITOR’S NOTES:

Although the writer speaks of the process as being “particularly fitted for a lady’s recreation,” recreational use by women never became prevalent. Some women, however, did enter the ranks of the profession. See Edmund Saul Dixon, “More Work for the Ladies,” *Household Words: A Weekly Journal* (London) 6:130 (18 September 1852): 18–22.
