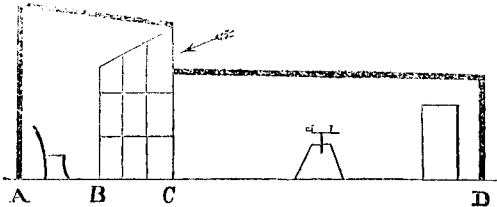


the walls of the studio are intended to keep out the light, and the glass only intended to keep the wind and rain from entering through those openings by which the light is to be properly admitted.

Rather more than three years ago I suggested a plan for the portrait-studio, in an article which was published in my 'Photographic News' of Sept. 15, 1861; and although I have considered the matter a great deal since, I do not yet see any reason for modifying that plan in the least. Fig. 1 is a sketch of it.

CD is a long dark passage in which the camera is placed. The walls and ceiling of this passage ought to be blackened with lampblack and glue, and the floor should be covered with black matting, everything being dead black, and with no varnish.



The space BC on both sides of the room, as well as the space near the point of the arrow, should be glass. The portion AB, as well as the entire ceiling over the sitter, should be opaque, and the ceiling sloping in the way which I have indicated, and painted black in order that it may reflect no light downwards.

The room should have a true northern aspect, and the sitter must face the north. One of the side lights must always be shut. Whenever the weather permits, the whole of the front window must be opened, in order to reduce the time of exposure and ventilate the room. In the morning the eastern side-light should be shut and the western one open, and conversely in the afternoon, the object being to keep out the sunshine, which should never by any chance enter the room. White screens will of course be necessary at times for reflectors. The room should not be more than 8 feet wide, and its length should be at least 40 feet.

I had no sooner suggested the above plan of glass room than some of the leading professional photographers took it up, but with modifications of their own, none of which I think were good. Instead of leaving the front light perpendicular, as I have drawn it, they brought the point C nearer D, and made it inclined, the effect of which would be, of course, to let in the sunshine earlier in the afternoon, as well as to lighten the passage, which ought to be kept dark. Besides which, these gentlemen did not seem to recognize the principle of shutting out top light, but made the ceiling incline the other way, painted it white instead of black, and allowed the front light to encroach upon it. In fact they treated my suggestion as a mere crude idea, when it was, in fact, the result of much careful consideration in every part. There are, however, circumstances under which it would be allowable to make the front light a little more inclined; for instance, if there should happen to be a very high wall at A. I need not add that the chief advantages I claim for this plan of room are, that the eyes of the sitter are directed

into darkness (instead of being made to stare and blink at the light), by which a pleasanter expression is secured, and the eye better brought out; and also that the advantages due to length of room are gained without the drawback of having to take the portrait through many feet of illuminated haze, and thus veil the shadows of the picture. Even if the passage should be filled with the smoky atmosphere of a town, the smoke would not be in the light but in the dark, and would not therefore produce a light veil upon the shadows of the picture, but would merely lengthen the time of exposure. In the common form of glass room it is a great objection to having it too long, and to using long focus-lenses, that the illuminated smoke in the atmosphere veils the image upon the ground-glass, and fogs the negative.

Let us now turn to the subject of the exposure, and the arrangement of the sitter. According to the present plan, the image is viewed inverted upon the ground-glass; and that has to be removed and the dark slide put in its place, and the shutter drawn up, and the cap taken off the lens, before the exposure of the plate takes place. But this may be very simply obviated by having a mirror inside the camera, according to a plan which I described some years ago, and called a reflecting camera. The ground-glass lies horizontally beneath your eye, and you look down upon it as you do at an album photograph, and see the picture erect, thus obtaining a very perfect idea of the composition, pose, arrangement, lighting, &c. Who can doubt that the constant habit of viewing the image in this way would have a beneficial effect upon the artistic character of a man's pictures, seeing that it would greatly assist him in forming a correct idea of the ultimate result? I have constantly found that an inverted image is very deceptive, and the result often very disappointing. Now, surely, considering the difficulties that lie in the way of taking artistic photographs, no chance of improving them in that respect ought to be thrown away. I believe that no amount of experience will ever enable any man, however clever, to form a correct judgment of the finished picture from an inverted image of it upon the ground-glass.

When I first suggested the reflecting camera, I placed the manufacture of it in the hands of the two leading opticians; but very few were manufactured, and at last the thing fairly fell to the ground. The chief reason was that a plate-glass reflector, owing to the two refractions which take place at its front surface, rather injures the definition upon the focusing screen, and a metal reflector became necessary; or, better still, perhaps, a glass silvered upon the face by Drayton's patent process. A metal reflector made optically true, as it ought to be, would be rather expensive, and that has been the chief reason why the reflecting camera has not come into use! Photographers have been afraid of spending a little money upon an instrument which would greatly abridge their labour in posing and exposing, and which could not fail greatly to improve the artistic character of their works. I may add that my patent for this camera has been allowed to expire, and that any optician may now manufacture it free of all restriction. I will not extend this paper by a description of the instrument, but leave it to your Secretary to explain its