

Let us, as physicians would say, make out a diagnosis of a few cases, and then seek for the remedies with which to produce our cures. First, A wants a sky-light operating room, which he designs as follows; size of room, 18 by 24 feet; height of walls from floor, 10 feet; north pitch of roof, and number of degrees, between 10 and 45; sky-light, 8 by 10 feet flush with roof; lower edge of light 2 feet from intersection of wall and roof, and 3 feet from end of room, &c. A's case is hard, though not an uncommon one, and his productions are a constant—provided they do not fade—advertisement of his own ignorance. His "pictures" are patches of intense light and shadow, which make very good caricatures of those who favour him with their patronage. All the high lights are *very perceptible*, and all, or nearly all, in the shadow are quite *imperceptible*. The light upon the forehead and brows is relieved (?) by the midnight darkness which reigns beneath the brow, nose, and chin. The great artist Sol, or his assistant A, has evidently turned off an unfinished work. The half-tones, which add so much beauty, seem to have been entirely forgotten, or put in with such violent contrasts that their beauty is much like a light under a bushel.

A's sitters call his pictures "flat," "chalk and ink," "don't look them," and they resolve to patronise his neighbouring photographer B.

A sits down to cogitate—wonders what the matter can be. He thinks that some change in his chemicals may reduce the high lights, and bring out the shadows. Tries it: result—anything but brilliant. After great and manifold trials, gets the blues, becomes disgusted with the business, concludes that he was not made for a photographer, and sells out.

B built his operating room after A's model; but his patrons being a little more fastidious than A's, often found fault with the blackened eyes, and ugly spot under the nose and chin, which his picture represented.

B, being a little more shrewd than A, had, after trial, consultation and study, sought a remedy by introducing a small window into the side wall of his operating room. This window for economy's sake must be small, besides which he feared a large window might give *too much* light. After this improvement he hoped to succeed. He did *partially* succeed in getting rid of those "ugly black places," and began to hope that all was right.

Alas for human hope! His sitters again began to complain. This time some of their pictures looking "as though they were dead;" others, "the eyes look so badly," still others, "no eyes at all;" and occasionally some one would persist in trying to make poor B believe that one side of his face was *not* very dark, and the other, *very* light; and some wanted to know what "those two *white spots* in the eyes were for?"

One lady would indignantly remark that her picture made her look like the fat woman at Barnum's, and another that her picture looked like a hatchet; some were too old, and *few* too young.

B is in a quandary and asks for advice, which we humbly offer; advice founded upon the experience, failures, and successes of fifteen years' practice, resulting in the ability to produce what friends, and we trust a majority of patrons, unite in calling first-class work.

Axiom—No one ever did or ever can produce *good* pictures by a badly arranged light. Consequently, *never* use a room for your sittings in which you cannot get a *good* light. If you own a badly arranged room, remodel it, or build another. If you are a tenant, make your landlord do it for you, or take rooms of one who will give you this one feature which you must have—a good light.

My own experience leads me to prefer a light for portraiture arranged, as near as may be, upon the following plan. For copying, a different arrangement will be found preferable, which may be explained in future.

The light or window should be at least five or six feet from the end of the room rearest to the window, but the better plan is to have the light midway of the side wall of the room, thus giving better facility for working both ways, which is

necessary very often in all large establishments, or those who prize uniform good result.

The operating room should be at least ten feet high, the other dimensions may be such as the size of work, instruments, capital, &c., may require and admit of. A room fifteen by thirty feet will answer for all the ordinary sizes and styles; for large groups, more room might sometimes, though seldom, be required. The window for such a room should be about ten feet wide, introduced into the side wall, within not more than twelve inches of the operating room floor, reach from that point to the intersection of the wall with the roof, and from that point it may follow the angle of the roof a sufficient distance to bring a plumb line from the upper edge of the glass to the floor, at least two-thirds of the distance across the width of the room, measuring from the bottom of the window near the floor. If the roof is nearly flat, sufficient rain-shedding pitch may be given, by raising that side or edge which is farthest from the perpendicular portion, or a ridge may be introduced into that same part, which we will call the roof of the skylight. Such ridge should be as light as safety will allow, as also should be the rail or beam at the intersection of the wall and roof portion of the window. If the window faces towards the north, use plain white glass, unless the prospect is an unpleasant one, and you can afford sufficient loss of light to shut it out with ground glass. If your window faces south, east, or west, finely ground glass will be found preferable to the plain.

In either case, never omit having curtains or some other subduing agent arranged over your whole window, so as to give you perfect control over the light. A very effectual method of accomplishing this is found in an arrangement of wires and curtains across (*never* up and down), your window both side and top. The curtains should not be more than thirty or thirty-six inches wide, and should be so arranged as to overlap each other a few inches, as shingles or slate on a roof. The wires can be arranged by stretching them from blocks fastened at each side of the window, in such manner that the rings on the edges of the curtains will slide upon them without any difficulty. Never make your operating room look like the deck of a man-of-war by attaching cords and rigging to your window curtains; such arrangements often get out of repair, and require considerable nautical skill, which is not needed by landmen photographers. A light wooden rod is the most convenient article for changing the position of your curtains, and can be gotten up quite tasty enough for the most fastidious. Very good curtains can be made of light blue unglazed muslin, or cambric, or some similar material; and if you want still greater control over the light than these would give you, it can be obtained by using two sets of curtains, one of light material, the other of dark or heavy, thus enabling you to shut off all light from any part of the window which you may choose. Other arrangements there are, such as coloured glass or wooden shutters, but the writer has never found anything so convenient and effectual as properly arranged curtains.

#### NEW PROCESS OF ENGRAVING.

[The following account of a new process of engraving is worth the attention of all those of our readers who are interested in the general progress of the fine arts.]

WE have been commissioned by Mr. E. Vial (an eminent chemist of Paris) to direct your attention, as a *connoisseur* in the fine arts, to an important invention which he has made in the art of engraving, which virtually places the graver in the hands of the artist himself, so that his own most subtle touches are at once faithfully engraved on a steel or other plate, preserving the individuality and real feeling of each artist in precisely the same degree as his own painting or drawing would do.

This process admits of the following variations:—

1. The artist may draw directly upon the steel plate in either crayons, or lithographic, or other ink, and the slightest touch, as well as the broadest lines, will be *instantaneously* engraved in intaglio.