

DEVELOPMENT FOR UNCERTAIN EXPOSURES AND LOCAL DEVELOPMENT

By L. W. BROWNELL

WHILE in these days of exposure meters one should know very nearly what exposure to give a plate under most circumstances; still, a meter is not always infallible, and there are occasions when the use of one is impossible. It is a fact that beginners lose many negatives that have been either over- or under-exposed through lack of the necessary knowledge of how to properly develop them, so I am going to devote this paper to some advices upon that subject.

In my experience pyro is the best developer to use in all cases where one is at all uncertain as to whether his exposures have been correct, for its action is slower and gives one more time for manipulation. It is well to have three graduates of pyro ready mixed: one normal strength; one normal strength heavily restrained with bromide, and the third about one-third normal strength. In addition it is well to have a very weak solution of metol and hydrokinone for use with very much under-exposed negatives. These solutions should be all ready where one can instantly put his hand on any one of them.

In a previous paper, I have explained that, should the negatives show an image quickly, it should be transferred to the restrained developer, and should the image come up slowly and in spots, the weaker developer should be used; and in cases of extreme under-exposure the very weak developer of metol and hydrokinone will bring out all that is possible, the development continued until the negative begins to show chemical fog or stain.

A plate that is very badly over-exposed so as to appear almost hopeless, may often be saved by placing in a solution of pyro containing no alkali, but plenty of bromide. Allow it to remain soaking in this solution for at least an hour, after which add small quantities of alkali and bromide, until development is complete. The result will be a badly over-developed plate, which can afterward be reduced until the proper density is reached and a good negative obtained from a plate that, had it been developed in the ordinary manner, would have been entirely worthless.

Always remember that, in cases of over-exposure, the development should be carried much farther than when the exposure is correct in order to bring out the contrast properly. This, of course, makes a much denser negative than requisite, but it can always be reduced to the proper density.

In cases of under-exposure it is sometimes well to begin with the weak metol developer, and when the detail has been brought out density can be gained by transferring it to the normal pyro solution. In cases of extreme under-exposure, when

density cannot be had by development without staining, the negative may often be wonderfully improved by intensification afterward, but this must not be attempted until after the hypo has been thoroughly washed out.

In cold weather a warm developer will be found effective in cases of under-exposed plates, and in cases where the under-exposure is not too great this will be found all that is necessary. Care must be exercised, however, that this is not too warm, or else the film will be softened sufficiently to cause "frilling" at the edges or reticulation marks over the entire surface, which cannot be removed.

Over-exposure is much easier to cope with than under-exposure, and so it is better to err in the former than the latter directions; therefore, it is well, when one is not sure of the time necessary for a correct exposure, to give a little more than he thinks would be right. There are times, however, when it is impossible to give all parts of the plates a correct exposure; as, for instance, interiors looking against the light, or where one part of the room is very light and the rest dark. In such cases it is always well to expose for the darkest portions, and depend upon local development to turn out a satisfactory negative.

Begin development with a diluted pyro solution until those parts which received the most exposure have become sufficiently dense, then throw off this solution and thoroughly wash the plate and apply the metol developer with a tuft of cotton to the parts that have not yet been thoroughly developed, occasionally rinsing the entire plate with water to prevent the solution from spreading to those parts that have already been developed. This is a somewhat delicate operation, and must be done with great care, but by it results can be obtained that would be impossible otherwise.

In landscapes, the sky portion of the negative invariably receives more exposure than the rest. This can be remedied, arid clouds secured where otherwise there would be a solid, dense blackness, by using a weak solution until the sky portion has nearly, but not quite, reached sufficient density, then pour off the solution and rinse the plate; tip the tray and pour a normal solution in until it covers the lower portion of the plate up to the sky-line. Continue development with this (occasionally flowing it over the entire plate, then removing the plate and rinsing it, so that there may be no distinct line between the sky and the foreground) until the entire development is complete and the result should be a negative that shows correct relation between the sky and the foreground.