

of delicate chemical processes for each photograph taken, and when the successful performance of these processes was alone sufficient to tax the knowledge and skill of one individual, it may have been true that a trained scientist was the best man. But, in these day of dry plates and ultra-simplified printing processes, photography, except in its purely scientific divisions, is being lifted above a test of chemical knowledge or optical expertness, and, in taking its place as one of the most valuable handmaidens the fine arts possess, must sooner or later be admitted into partnership with them.

The chief use of a knowledge of chemistry, molecular physics and optics to the photographer, independent of the general educational value, lies in giving him a clearer insight into the sciences utilized in his work, and thereby inducing an interest which acts as a powerful antidote to the apathy which is so fatal an enemy to progress.

MORE CARE REQUIRED IN SPECIALIZING.

Another division of his subject is recognized by the photographer more and more clearly as his work proceeds. Having probably started by associating photography with taking portraits only, he becomes conscious of fields and scope for work in which portraiture plays no part; he finds workers devoting the whole of their time and energies to landscapes, to copying, to architecture, to printing, or to process work; and even in portraiture alone he finds one worker devoting himself to operating, another to retouching, and a third to printing. He begins to realize that it is impossible for an average individual to master every branch of photography, and so it comes about that he, like the others, has to select some departments and reject others—in fact specialize,

In doing this, he is usually guided by what he considers the most lucrative portion of the art, and in most cases portraiture seems to be chosen. It is of course, a matter of opinion as to which branch of photography offers the most lucrative openings; but in my opinion the prospects of a landscape or general worker, or a reproductionist, at the present time, are better than those of a portrait photographer, these prospects being not so much in the silver print as in the collo-type film, the copperplate, or the type block.

There are other factors also which should be considered in deciding upon the direction

in which to specialize. The probationist, while it is still in his power, should be guided more by his own capacities and temperament than he is at present. If he likes indoor life and delights in the human figure, he would be unwise if he did not take up portraiture; but, if an outdoor life suits his constitution and tastes, he would be equally unwise if he did not specialize in landscape or other outdoor work. For town life he must be more expert and specialistic than for country life, for which a good general excellence is better suited. And, again, according to his proclivities, he should choose the artistic or manipulative sides of his subject.

Whatever special branches he ultimately adopts, a good general commercial and art education, and a good technical and trial knowledge of all the principal photographic processes, with their individual applications and possibilities, should form the basis of his work.

EVIDENCE OF THE PRESENT INSUFFICIENCY OF TRAINING.

Evidence of the insufficiency of the present system of photographic training is everywhere present.

In the extremely limited range of most workers' skill, which, while good in itself when carried to sufficient perfection, and supported upon a general foundation, is frequently mere rule of the thumb, so that the results are capricious, and, in taking up new processes or methods which the progress of technology or discovery may render advantageous, the worker finds himself but little better than a novice.

In the deficiency of technical, artistic, and general knowledge so commonly met with, which, while it is excusable among those who, interested in photography, are not expected to know its *mnütia*; it is inexcusable among those who, by their calling, are expected by a public—quick to criticize harshly—to have been properly educated in the art they profess.

And, last but not least, in the surprising facility with which a determined outsider will place himself on a level with workers of a lifetime.

THE PROBABLE REMEDY.

It is, I believe, in the spread of a sound and largely extended intermediate and supplementary training to that of the school and the studio that the photographer will not only