

The use of long-focus lenses becomes absolutely necessary if we seek to obtain uniformity of definition along with absence of distortion. At a given distance and with a given lens, at only a few feet from the model, it will be found difficult and sometimes impossible to obtain anything approaching equality in definition, and the effects of exaggeration of prominent parts will be fatal to success. When attempting to take a large head in a cramped space with a short-focus lens, as fast as we can get one feature in good focus another goes out of focus, and no compromise is possible except to produce a fuzzy negative which is sharp nowhere.

Again, long-focus lenses, at several yards distance from the model, will permit the use of larger apertures, in relation to focal lengths, than are possible with short-focus lenses, which must be stopped to such a degree that the exposure is seriously prolonged; in other words, the short-focus lens at close quarters will not work with a large aperture and give good definition.

If for no other reason, short-focus lenses must be condemned for this purpose because of the inevitable distortion or exaggeration, of which a few trials is sufficient to convince. The slightest movement of the head, or the least alteration in the angle (relative to the axis of the lens), throws everything into confusion. I have noticed that the act of breathing throws part of the head into and out of focus at each respiration.

Before commencing to take large heads direct, several things have to be arranged. Back-grounds will be re-

quired, and a number should be made of different tones or colors, to suit varying complexions and types of features, and to obtain any desired effect as regards principal lighting and relief. Sheets of strawboard, of large size, and each with a hole punched in corners to hang up on nails behind the head, will act satisfactorily. They may be coated with distemper of any shade or color from black to white, and probably half a dozen such back-grounds will meet all requirements.

Study the important matter of the principal lighting. Whilst a diffused and equal light will be the first essential, we must also have means of adding to or reducing the dominant light, so as to obtain light and shade, relief, effect, and so on. In a studio furnished with a complete arrangement of blinds this becomes easy, but in a sitting-room many dodges have to be resorted to. If the room has two or three windows, dropping the blind in one may give the balance of light desirable, and enable one to direct the principal rays in such a manner as shall bring into prominence all the points of the features of the model. Models differ so greatly in the class of features that the keen observer of humanity will very soon see that he cannot treat all types alike; he will need to study their points, their style and their individuality in order to do justice to the excellence of his model. I might almost go as far as to say that no one pose and lighting will be equally suitable for all classes. Let us assume that the model is a feminine beauty. The first consideration, no doubt, will be the manner of dressing