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LANTERN SLIDES BY REDUCTION.

THE most popular method of producing lantern slides is by contact of lantern plate with negative, and the majority of plate manufacturers seem to take it for granted that most of their customers will adopt this plan. It certainly has the merit of extreme simplicity, and, provided that the negative from which the slide is taken embraces in a space of about three inches the whole of the composition which it is desired to include in the lantern picture, no fault can be found with the system. Some workers take their negatives for the express purpose of producing from them lantern pictures, and they are careful to have a space of the standard size pencilled on the ground-glass screen of the camera. Others are content to obtain by contact a lantern picture from such part of a quarter-plate negative as will give the best result. The fact that the great majority of commercial slides are made square, or round, so as to fill up the whole of a sheet-also, by general agreement, square in shape—has caused the large army of amateur lantern slide producers to follow suit, and an oblong picture was, until lately, quite the exception. The introduction of cameras for reducing larger negatives to lantern size has resulted in a change for the better, for there is little doubt that an oblong picture is far more satisfying to the eye than one which is either round or square. Our picture galleries give evidence that artists generally prefer the oblong shape, and lantern slide makers would do well to follow so good a lead.

Unfortunately, one of the most desirable processes by which slides can be produced cannot be employed except for contact pictures. We allude to the old albumen process, which deservedly holds front rank for such work. Those who have succeeded in producing lantern slides of that kind will think twice before they change their method, for the pictures given are beautifully transparent, and the film is almost as hard as the glass upon which it rests. A properly executed albumen picture on glass is, indeed, as permanent a

thing as photography is capable of producing. The collodio-bromide process, although slow, yields excellent results by reduction in the camera, without the chance of abrading the tender film which printing by contact is apt to bring about. As our readers know, the majority of commercial slides are due to the wet collodion process, and these are mostly reduced from larger negatives. Amateurs, on the other hand, mostly favour gelatine slides, and excellent results are obtained by the various makes now in the market; but, as already intimated, most of them are used in contact with the negative to be copied.

We have for some time, in our own practice, adopted a method of producing slides by reduction which, while most certain in its results, leaves little to be desired in the way of convenience. The negatives employed are quarter-plate size, and they are reduced to 3 by 23 ins., being finally framed with a mask slightly smaller. By dispensing with daylight, we at once eliminate one source of trouble, for daylight at this season of the year is far too variable a thing to depend upon. Even if we get a decently fine day, the actinic value of the light varies from hour to hour, almost from minute to minute. We employ a lime jet with a very small bore, so that the spot of light is not more than a quarter of an inch in diameter. This light is contained in a roughly-made lantern furnished with a six-inch (diameter) condenser. In front of this condenser, and close against it, stands a frame to hold the quarter-plate negative, which is buttoned into its place in a moment. On the same base-board is an ordinary camera fitted with a 6-inch rectilinear lens pointing towards the negative, and this camera holds a carrier of lantern plate size. After the first negative has been focussed, and it has been ascertained that every part of the apparatus is well centred, picture after picture can be produced with the utmost regularity and certainty, the only condition being that the duration of exposure is regulated according to the density of the particular negative in hand. The full aperture of the lens is employed, and the amount of light is such that a very