

# THE PHOTOGRAPHIC NEWS.

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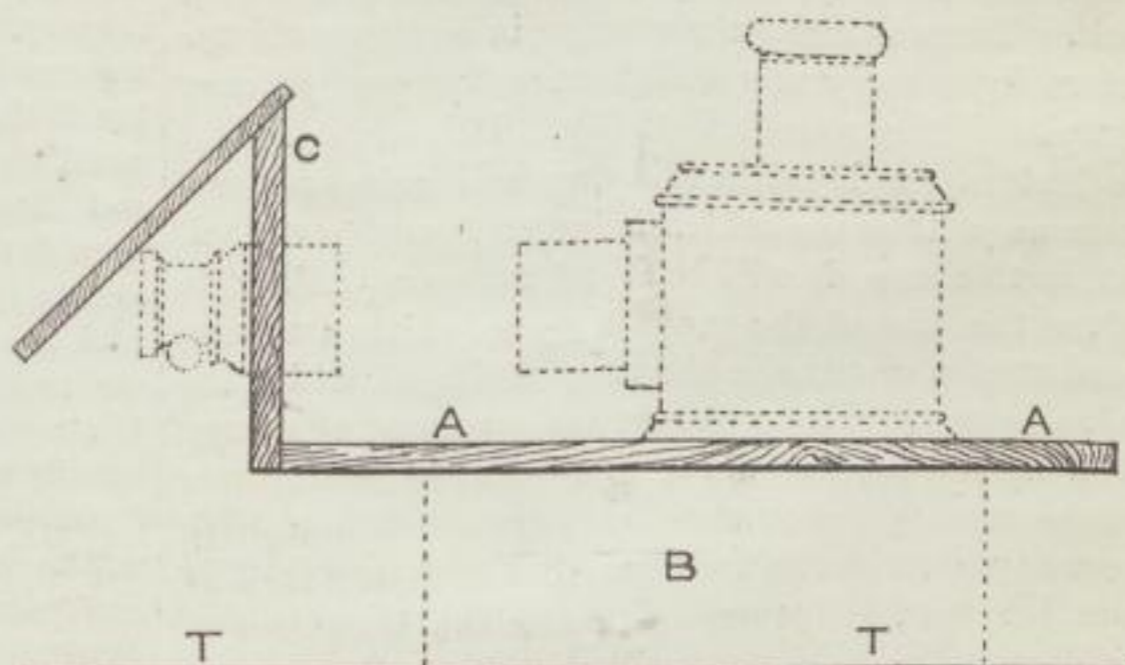
### A NEW USE FOR THE OPTICAL LANTERN.

WITH the increase of schools of art all over the country a knowledge of drawing has become far more common among us than it was twenty or thirty years ago. This is indeed a subject for congratulation, for the practice of art, different from many other pursuits, confers benefit and pleasure upon others besides its professor. Since, too, the invention of several photo-mechanical processes by which drawings can be readily transformed into typographic blocks without the intervention of the engraver, there has been a demand for drawings in black and white such as never existed before; so that all around us we see schools arising which profess to devote themselves to the new branch of graphic art, and pupils eagerly availing themselves of the proffered instruction. We think, then, that any means which promises a still closer union between the photographer and the draughtsman, and which may tempt the latter to adopt the pencil of the former, cannot fail to have an influence for good. Such a means we wish now to place before our readers, and, although we cannot claim any great originality for the suggestion, we may at least say that it is a new application of an old idea.

It came about in this way. Some time ago we were wishful to obtain some photo-mechanical blocks from certain lantern slides we had at hand. The half-tone processes of the Meisenbach type were obviously out of the question, for the printing had to be done on a quick rotary machine. It was therefore determined that they should be drawn in line on card in the blackest of inks, photographed, transferred to zinc, and etched in the usual manner. But when we came to make the necessary enlarged drawings from the slides, we found that the work was extremely slow and laborious, although we employed proportional compasses and other labour-saving devices. It was then suggested that the slides should be severally placed in a lantern, and that the resulting enlarged image, received upon a

piece of card, should be outlined direct in pencil. This we did, but found the work extremely fatiguing, for the cardboard upon which we pencilled the lines was necessarily in a strictly vertical position, and the attitude assumed was so cramped that a frequent rest was demanded.

It was now suggested that things might be much improved if the enlarged image, instead of being projected horizontally, were thrown down upon a table, at which the worker might sit with some degree of comfort. The hint was quickly acted on, and by the same evening we had constructed a rough and ready enlarging



apparatus for draughtsmen, which has since been constantly in use, and which we would not readily part with. It is simply an application of the *camera lucida* principle, which has so long been in use for the drawing of microscopic objects, to the ordinary mineral oil optical lantern, only that, instead of using a prism, we make use of a common mirror.

The apparatus consists of a base-board about seven inches in width, with a ledge at each side, leaving in the centre sufficient space for the lantern to be moved to and fro, while at the same time the ledges cause the image cast to be always central. But the relation of parts will be best understood by reference to the accompanying sectional drawing.

AA is the base-board, made out of inch deal, with a