

THE PHOTOGRAPHIC NEWS.

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A NEW LENS.

In our leading article last week "On Photographing Distant Objects," we pointed out how, by aid of a telescope, the camera might be made to yield comparatively large images of things far removed from it, and we incidentally called attention to an instrument contrived by M. Jaret to fit on to the hood of the ordinary lens, which had been designed for this class of work. We also drew attention to the circumstance that a certain picture published in a French journal which purported to be the offspring of this instrument, bore distinct evidence that it had been executed by a camera in close proximity to the object photographed, and not from a distant point of view as stated. Since the publication of our remarks, we have learnt that one of our foremost opticians, Mr. T. R. Dallmeyer, has for some little time been devoting himself to the production of a lens which shall be capable of giving large images of distant objects, without any extraordinary increase of the distance between lens and focussing screen.

The production of such an instrument would, by most men, be regarded as next to impossible, for, as every tyro knows, a large image means that the object represented must be as near the lens as possible, and that the camera must be lengthened out often to its fullest extent. But Mr. Dallmeyer has achieved this apparently impossible feat, and we have had an opportunity of examining the lens itself, and certain negatives which have been produced by its aid. Of the lens we are not at liberty to say more than that it is of large aperture, and that it consists of a double combination. But we need be under no reserve with regard to its capabilities, so far as they are at present known. Paradoxical as it seems to be, this lens will give a greatly magnified image of an object which is much farther away from it than is the lens from the focussing screen. This was demonstrated to us in the clearest manner. A lamp flame at a distance of about nine feet from the lens was focussed on the ground

glass screen, while the lens was about two feet from that screen, and the resulting image was double the size of the original. These measurements do not profess to be exact, but they are approximately right. Or, to put it in another way, the photographer has now at his command a lens which needs a camera but two feet in length, but which will, under such conditions, give an image of the same size as if he were using a lens of one hundred inches focal length. In all previous attempts in this direction, it has been the custom to get a primary image and then to magnify it, but in the case before us the primary and greatly enlarged image is itself projected on the focussing screen.

As we pointed out last week, the photographer who attempts to employ a telescope with his camera finds himself restricted to the portrayal of inanimate things, for the simple reason that the exposure is so greatly prolonged by loss of light. With the new lens which Mr. Dallmeyer has constructed the loss of light is by no means excessive. In one picture which he showed us, which was taken with a long-extension camera held in the hand, is seen a rook just about to settle on a tree top. The distance from tree to camera was, we are told, one hundred yards, and the image of the bird, which is clearly defined, measures, roughly speaking, one inch from wing to wing. It is very clear that this new form of lens will open up possibilities to the photographer which before its introduction were denied to him. We have occasionally heard of a camera being carried by sportsmen whose delight it is to track wild beasts to their lair. One such picture, we remember, was exhibited not long ago. It represented a wounded tiger which its captor had photographed just after he had favoured it with a bullet. Another picture was shown us of a buffalo moving through the underwood, his horns being just visible above the high grass; but the image was so small that the picture had a close resemblance to those pictorial puzzles in which one is invited to "find" the leading incident. In that case the puzzle was to find the horns, so that the picture was after all a mere curiosity, as being probably the