

the upper row are seen some results without a light-filter at Station 51. The plate on the left (No. 10), exposed for 40 minutes at 500 metres, was strongly influenced by the rays. The next plate (in the middle of the upper row), exposed for 80 minutes at 1000 metres, was also blackened by the light-rays. The third plate was exposed for 120 minutes at 1700 metres, and showed no effect whatever. These experiments were made at noon on the 6th June with a clear sky, and show that a good deal of light penetrates to a depth of 1000 metres—considerably deeper than was previously supposed. The limit of light

Results at different depths with and without colour-filters.

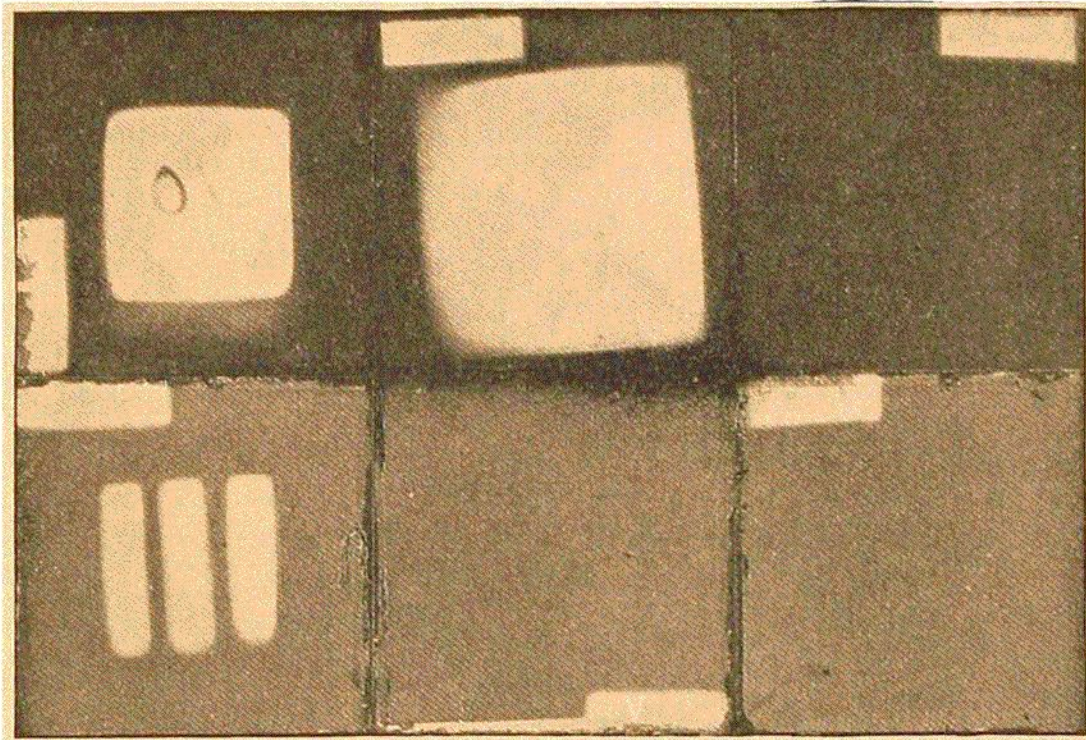


FIG. 172.—PHOTOGRAPHIC PLATES EXPOSED AT DIFFERENT DEPTHS.
The upper row from Station 51, the lower row from Station 55.

sufficient to influence the plate in the course of two hours lies at a less depth than 1700 metres.

The lower row in Fig. 172 shows some plates from Station 55, all exposed for forty minutes at a depth of 500 metres. The plate on the left was used without filter, and shows the same strong effect as the corresponding plate from Station 51, in the upper row. The next plate (in the middle of the lower row) was exposed with the blue filter; an influence of the blue rays is visible on the original plate (a faint Roman V), but not so clearly in the reproduction given here. The right-hand plate in the figure was exposed with a green filter, and shows no effect. A plate with the blue filter needs an exposure six times, and one with the green filter eighteen times, as long as a plate