Improvements in methods of sensitising with kryptocyanine have now made aerial photography possible with it, and the photograph of Mount Ranier at a distance of 227 miles referred to in the note in NATURE was made on kryptocyanine sensitised film.

In a preparation of kryptocyanine, Dr. H. T. Clarke in 1925 found another dye to be present, which was separated and found to have sensitising power for the extreme infra-red. The name of neocyanine was given to this dye, and it is by the use of neocyanine that the advances in spectroscopy have been made. The discovery of neocyanine had thus nothing to do with the demands of the motion picture industry. It was an accidental discovery resulting from the manufacture of kryptocyanine, which was being used chiefly in miscellaneous scientific work. The maximum sensitising power of neocyanine is at 8300 A.; its sensitising power begins to fall off rapidly at 9000 A., but with long exposure through screens, spectra can be photographed beyond 11,000 A. Since its discovery, improvements have been made in the use of the dye, and modifications of it have been made which are much better for sensitising than that originally produced. A great deal of research has also been done in the hope of finding other sensitisers for the infra-red, both before and since the discovery of neocyanine, but up to the present, no dye has been found which is more effective for the infra-red region than neocyanine.

C. E. KENNETH MEES.

Kodak Research Laboratories,
Rochester, N.Y., Aug. 25.

Vitamin Content of Marine Plankton.

THE appearance of the letter in NATURE of Sept. 13, by J. C. Drummond and E. R. Gunther, on the vitamin content of marine plankton, simultaneously with the résumé on p. 423 of the same issue, of the paper by G. Belloc, R. Fabre, and H. Simonnet on the study of plankton sterols, stresses the importance of a knowledge of the vertical distribution of plankton animals in the sea. It is a general rule that most of the plankton animals in Plymouth waters in sunny weather during April, May, and June live at depths below 10 to 15 metres, thus presumably avoiding the layers in which irradiation is likely to take place. In July, however, a definite change comes over the plankton, certain species previously only to be found in the deeper layers becoming abundant right up to the surface itself; this condition persists throughout July, August, and perhaps September. This seems significant in view of Belloc, Fabre, and Simonnet's findings that the sterols collected in July were found to be biologically active, whereas those collected in April only acquired biological activity after irradiation.

F. S. RUSSELL.

Marine Biological Association,
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Mortality amongst Plants.

ON the Cretaceous plateau that occupies so much of East Devon (800 ft.-900 ft.) beech trees flourish in considerable numbers. The roads crossing the upland are separated from the adjoining enclosures by massive earth banks that are quite remarkable for their breadth and solidity, some being upwards of twelve feet in breadth and six to eight feet in height. On these banks beech trees usually grow, and in some instances form a continuous avenue. Between the roads and the banks are shallow ditches, and in the late spring the bottoms of these ditches are completely green with the first true leaves of seedling beech. None of these come to maturity, as they are browsed off by rabbits. Even in the enclosed 'rough lands' beech seedlings exist in abundance, but only where some protective environment occurs does the seedling achieve maturity. The mortality must be enormous.

The seedlings of *Pinus sylvestris* offer a complete contrast. Extensive plantations of this tree exist all over the upland plateau, the woods frequently surrounding waste common land. The seeds find their way to the open commons and the seedling plants practically all reach maturity, so that in a very short space of time a piece of open common land becomes a Scots pine wood. It is obvious that in this case the resinous excretion of the plant preserves it from the attacks of the hordes of rabbits inhabiting the district.

Seedling oaks are rarely seen in any quantity, however prolific the autumn crop of acorns may have been. The oak in this district is principally a tree of the lowland, and in the autumn the droves of pigs from the numerous farmsteads effectually clean up the supply of dropped acorns around the enclosures, and very often in the country lanes also.

G. T. HARRIS.

Buckerell, E. Devon.

Noise Associated with Lightning.

THE thunderstorm which burst upon Petersfield on the night of Aug. 29–30 was accompanied by an unusual effect on the electric lighting system in a house on Bell Hill, distant 1¼ miles from Stoner Hill, where the same storm was observed by Capt. C. J. P. Cave (NATURE, Sept. 13).

The lightning was first noticed shortly after 9 P.M., and flashed incessantly every ten to thirty seconds, but was not at its nearest to Bell Hill until 1 A.M. to 2 A.M., when, to judge from the interval of ⅛–½ second between the flash and the thunder, a storm centre was within 500 feet.

At the time of observation there were no lights burning in the house. Simultaneously with the nearest lightning flashes, an electric light bulb, hanging from the ceiling, emitted a bluish green light, which flickered and quivered in correspondence with the lightning. This was accompanied by a click in a small pear switch of the lamp in question. Thunder followed the click, after an interval. Other bulbs in the same circuit appear to have been unaffected, which may perhaps be due to the better insulation of their switches. It was next found that the current had failed, and we afterwards learnt that the supply throughout the whole of Petersfield was interrupted at approximately 12.50 A.M. owing to a surge on the high tension line.

It is suggested that a current of electricity, induced in the mains, jumped the switch and illuminated the lamp.

M. H. D. GUNTHER.
E. R. GUNTHER.

White House,
Bell Hill, Petersfield.

A Cypriote Threshing Sledge.

IN your notice of Mr. Hornell's description of the Cypriote 'dukani' or 'tribulum' in the Research Items in NATURE of Aug. 23, it is stated that "In some parts of Spain and the Canary Islands it is in use without the flints as the straw is required whole". A specimen that I saw at work near Burgos was well provided with flints, which like those in Cyprus are of Miocene age. It is known as a 'trillo'.

JOHN W. EVANS.

62 London Wall,
London, E.C.2,
Sept. 15.