

GEOLOGIC THERMOMETRY. By N. L. BOWEN. Reprinted from *The Laboratory Investigation of Ores*, edited by E. E. Fairbanks. McGraw-Hill Book Co., Inc., 1928.

SINCE this pamphlet is a reprint of a chapter from a book, it does not contain original work, but affords a useful summary of our knowledge of its subject, to a large extent in connection with ore-deposits. The author adds in a footnote that it has not been possible to include anything later than 1926. A brief summary is given of the means available for fixing points of temperature in igneous rocks and other deposits, and there is a useful table of the melting-points of twenty important minerals, including both silicates and sulphides. The subject of inversion-points is fully considered, and it is concluded that the earlier minerals of the more basic rocks freeze above 870° ; the principal crystallization of most rocks comes between 870° and 600° , while many pegmatites and segregations rich in volatiles solidify about 573° , while veins and replacements are formed from this point nearly down to the ordinary temperature. Little reliance is placed on the conclusions that have been drawn from the study of liquid inclusions in crystals. The temperatures of metamorphism and metasomatism show a very wide range indeed, occasionally rising to fusion point in thermal metamorphism, but generally below 870° . The dissociation of carbonates in metamorphism is also briefly discussed.

R. H. R.

OBITUARY.

Sir E. Ray Lankester.

The death of Sir E. Ray Lankester, the eminent comparative anatomist, deprives us of one who did much for the advancement of geology, especially on the palaeontological side. His work was largely carried out in his early years, and at the time of his death he was the sole survivor of the contributors to the first volume of this Magazine, which began to appear in 1864. In his declining years his interest in the subject was re-awakened by the discoveries relating to Early Man made in East Anglia, and he entered eagerly into the controversy that arose concerning the occurrence of artefacts in the Pliocene beds, contributing a paper to the Royal Society on what he termed "rostro-carinate" implements.
