The third formula is written in the disordered tantalite form $A_{16}O_{32}$ used by Nickel (1963a) in his description of wodginite. The microlite phase ($A_2B_2O_7$) shows a deficiency of site A cations. This has been noted by several workers studying the pyrochlore–microlite series and ascribed to the leaching of Na and Ca ions (van der Veen, 1963). Borodin and Nazarenko (1957) related the deficiencies in a number of pyrochlores to the degree of hydration.

On this evidence and Simpson's (1929) observations, the name calciotantalite should be finally discarded.

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Department of Mineralogy,
British Museum (Natural History),
London SW7 5BD.

A. M. CLARK

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MINERALOGICAL MAGAZINE, JUNE 1972, VOL. 38, PP. 767–8

Boulangerite from Port Gaverne, north Cornwall

SMALL quantities of boulangerite ($Pb_5Sb_4S_{11}$) have been identified from Port Gaverne (SX002809), in north Cornwall. The *d*-spacings found using X-ray diffraction correspond closely to those given by Berry (1970). Spectrographic examination supported the identification, and showed the mineral to contain major quantities of Pb and Sb plus traces of Fe, Zn, Ag, Mn, and Sn. Study of polished sections showed

that about 60 % of the boulangerite is massive, while the remainder forms unoriented fibres, up to 1 mm long, which are occasionally irregularly twinned. The massive boulangerite contains small inclusions of a light grey isotropic mineral, which may be sphalerite. The sulphides occur in a quartz vein within a grey tuffaceous slate of Middle Devonian age.

Dines (1956) has recorded workings for the antimony ores stibnite and jamesonite in this district, but the only recorded occurrence of boulangerite in Cornwall is an undescribed specimen from near Endellion, which Kingsbury and Hartley (1956) used as an X-ray diffraction standard.

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Department of Geology,
Bristol University,
Bristol, 8.

D. M. HOBSON

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Diopside, lithium metasilicate, and the 1968 temperature scale

THE 1968 International Practical Temperature Scale (IPTS) defines a temperature scale at several points including the atmospheric pressure melting points of gold (1064·43 °C) and palladium (1554 °C). The 1948 IPTS assigned values of 1063·0 °C for gold and 1552 °C for palladium. The Geophysical Laboratory of the Carnegie Institute, Washington, uses a scale defined by gold, 1062·6 °C; diopside, 1391·5 °C; and palladium, 1549·5 °C (Sosman, 1952). On this latter scale Kracek (1930) fixed the melting point of lithium metasilicate at 1201 °C, which has been used by some workers as a secondary calibration point.

Before 1968, some workers used 'mixed' scales, e.g. taking gold as 1063·0 °C but taking diopside as 1391·5 °C. This results in only minor errors. More significant