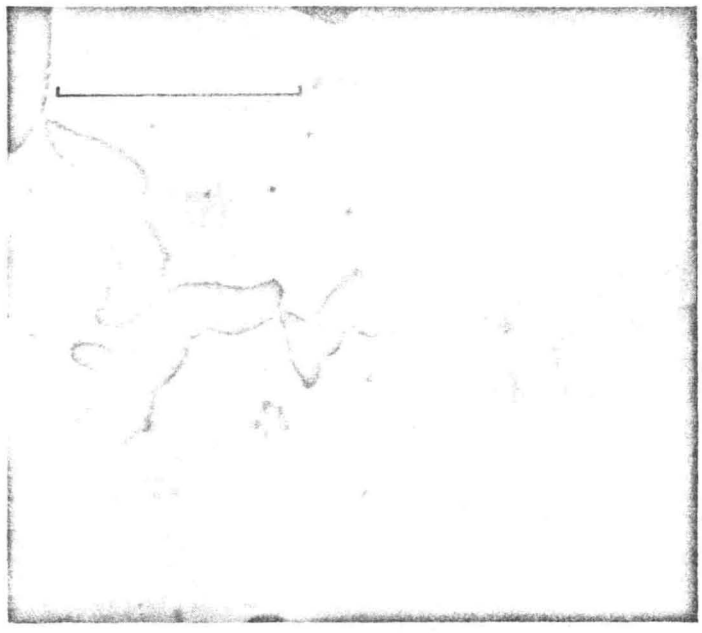
Fig. 1 (*continued*)



(*c*)

Thin foil electron micrographs illustrating structures of: (*a*) doped PM tungsten recrystallized at 2200°c (longitudinal wire section); (*b*) PM tungsten-0·9 vol. % ThO_2 alloy recrystallized at 2200°c (transverse section); (*c*) tungsten-1·4 vol. % HfC alloy after precipitation treatment. The scale markers designate 1 micron.

It must be noted that since the particles in the tungsten are larger than the foil thickness, unlike the case referred to earlier of carbide particles in iron (Radcliffe and Warlimont 1964), the association of the pressure-induced dislocations with any particular particle is not unequivocal. The iron did contain occasional impurity particles (iron oxide) which were also larger than the foil thickness, but their isolation enabled them to be identified as the source of associated dislocation arrays induced by pressurization, whereas the closer spacing of the particles in the tungsten makes such unique identification difficult. However, the possibility of such dislocations arising from mishandling of the foils can be rejected because of the characteristic brittle behaviour of tungsten at room temperature and, furthermore, the nature of the arrays is very different from those formed when tungsten is plastically strained at room temperature, as shown recently from tensile tests in which fracture is suppressed by increasing the environmental pressure (Das and Radcliffe 1968 c).