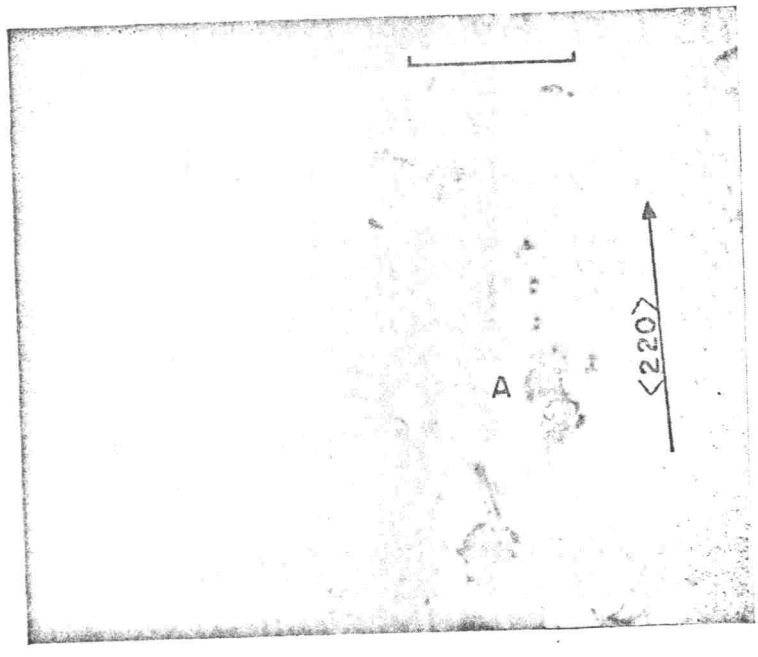
Fig. 5 (*continued*)




(*c*)

Dislocations observed at helium-filled bubbles in copper following subjection to an external hydrostatic pressure of 25 kilobars: (*a*) example of influence of bubble size on development of pressure-induced dislocations; (*b*) dense dislocation tangles observed at largest bubbles, together with examples of changes in the shape of the originally spherical bubbles; (*c*) simple array of prismatically punched loops developing along 220 direction from a helium bubble (marked A). The markers indicate 1 micron.

many of the bubbles (fig. 5). Around the larger (500–1500 Å) bubbles, dislocations are seen as a dense ' woolly ' tangle somewhat similar to that reported for $Fe_3C$ particles in iron (Radcliffe and Warlimont 1964). Some of the bubbles which have dislocations associated with them no longer have the spherical shapes seen in the annealed structure. Figure 5 (*c*) illustrates well-developed prismatic dislocation loops which develop along ⟨220⟩ directions. In contrast to these features associated with the large bubbles, the smaller bubbles situated in the interior of the band appear unaffected by the pressurization. The minimum size of bubble that was observed to be effective in generating dislocations is 500 Å. In a few cases (see fig. 5 *a*, *b*) bubbles of an average size less than 500 Å also appear non-spherical in shape, but without having dislocations visible around them even when examined carefully over a range of diffraction contrast conditions.