

**SAMBUCUS**

Vessels small (mean tangential diameter less than 100  $\mu$ ). Short radial multiples and clusters numerous, (fig. 177 C) with a tangential pattern, sometimes pronounced e.g. in *S. glauca*. Typically more than 30 per sq. mm. Typically ring-porous or semi-ring-porous; with faint spiral thickening. Perforations simple, though sometimes accompanied by occasional scalariform plates in the neighbourhood of the primary wood. Intervascular pitting alternate, medium sized to moderately small: pits to ray cells similar to intervascular pitting. Tyloses sometimes abundant. Mean member length 0.3-1.2 mm., shortest in *Sambucus*.

Parenchyma rather sparse, paratracheal, very scanty, as a few cells round the vessels (fig. 177 C), often in narrow terminal bands. Strands commonly of 2-4 cells.

Rays usually up to 3-4 cells wide, commonly less than 1 mm. high. Uniseriates composed entirely of square to upright cells, typically numerous and moderately high, but fewer and often only 1-3 cells high in *Sambucus*. Typically 11-19 rays per mm., but sometimes fewer in *Sambucus*. Heterogeneous (Kribs's Types I and II A), usually 1-4 marginal rows of square to upright cells. Sheath cells present.

Fibres typically with small simple pits, almost entirely limited to the radial walls; walls moderately thin. Mean length 0.8-1.8 mm.