Fig. 3 Transverse section (70 μm thick) of young petiole of field-grown kale. Cut, mounted and photographed as described in Fig. 1. (× 168.)

the fluorescence remained blue after treatment with ammonia (Fig. 3). Cell walls of *Trifolium pratense* L. cv. Hungaropoly and *Onobrychis viciifolia* Scop. cv. Cotswold Common (Leguminosae) showed similar fluorescence behaviour, indicating the absence of ferulic acid.

The synthesis and secretion of polysaccharides in the slime of the root cap is analogous to the synthesis and deposition of the matrix polysaccharides in cell walls. The Golgi apparatus and its associated vesicles are considered to be the site of synthesis and transport of the poly-saccharides of the root-cap slime, and are believed to have a similar role in the case of the cell-wall matrix poly-saccharides[14]. The root-cap slime of *Z. mays* showed blue fluorescence which changed to green after treatment with ammonia, suggesting the presence of ferulic acid esterified to the polysaccharides. It is possible that the site of bonding between ferulic acid and the polysaccharides of slime or of the cell-wall matrix is the Golgi cisternae, the resulting esters being transported within the associated vesicles.

Lignin could be synthesised in the Gramineae by oxidative coupling reactions involving ferulic acid units which are esterified to wall polysaccharides. This is consistent with the finding that the walls of the sub-epidermal sclerenchyma cells and the adjacent parenchyma cells of the fully elongated internode of *L. temulentum* fluoresced blue after treatment with ammonia, in contrast to the green fluorescence of the walls of similar cells of the immature internode (Table 1). Although lignified walls may contain some unpolymerised ferulic acid esterified to poly-saccharides, we have shown that as stems of *L. multiflorum* mature, less water-soluble esters are released from their walls by treatment with cellulase.

The work reported here leads us to question conclusions drawn when radioactive lignin precursors were fed to graminaceous species and the radioactivity detected in the cell walls was attributed to lignin[1]. We suggest that at least some radioactivity is associated with phenolic acids esterified to non-lignified walls. This suggestion is supported by a report that after feeding ^{14}C-cinnamic acid to wheat coleoptiles, radioactive ferulic acid was released from the walls by sodium hydroxide[15]. The production of vanillin or *p*-hydroxybenzaldehyde by nitrobenzene oxidation of cell walls has been used as a test for lignin[1] but these compounds could be obtained from ferulic acid and *p*-coumaric acids respectively.

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Corrigenda

In the article "Mechanism of catalysis of hydrocarbon reactions by platinum surfaces" by G. A. Somorjai and D. W. Blakely (*Nature*, 258, 580; 1975), the sentence which begins in line 26 of the second column on p. 580 should read . . . The rate of *n*-hexane production per kink site is determined by the slope of the line in Fig. 3*b*, which gives 4×10^{-28} mol s^{-1} per kink atom. This is almost an order of magnitude higher than the slope in Fig. 3*a* which corresponds to 5×10^{-29} mol s^{-1} per step atom.

The sentence which begins in line 10 of the caption to Fig. 3 should read . . . The rates of hydrogenolysis per surface site at the slope of the lines representing hydrogenolysis are 4×10^{-28} mol s^{-1} per kink atom and 5×10^{-29} mol s^{-1} per step atom.

In the article "Mechanism of reactions at square-planar metal centres" by F. R. Hartley and J. J. Périé (*Nature*, 256, 636; 1975) Fig. 1*a* and *b* are incorrect. The correct forms are reprinted below.

a

b