

TABLE I

Sl. No.	Amino acid used	Molecular formula of the derivative with the azide	m.p. °C	R _f Value mm
1.	Glycine	C ₉ H ₈ NO ₄ Br	198	0.69
2.	Glutamic acid	C ₁₂ H ₁₂ O ₆ NBr	180	0.95
3.	Asparagine	C ₁₁ H ₁₁ O ₅ N ₂ Br	169	0.72
4.	Lysine	C ₂₀ H ₂₁ O ₆ N ₂ Br ₂	169	0.58
5.	Glutamine	C ₁₂ H ₁₃ O ₅ N ₂ Br	165	0.92
6.	Leucine	C ₁₃ H ₁₆ NO ₄ Br	158	0.97
7.	Isoleucine	C ₁₃ H ₁₅ NO ₄ Br	158	0.84
8.	Methionine	C ₁₂ H ₁₄ NO ₄ SBr	150	0.76
9.	Cysteine	C ₁₀ H ₁₀ NO ₄ SBr	138	0.89
10.	Valine	C ₁₂ H ₁₄ NO ₄ Br	135	0.71
11.	Alanine	C ₁₀ H ₁₀ NO ₄ Br	115	0.76

The present reagent is advantageous as compared to other reagents mentioned in the Literature.

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A NOVEL ARRANGEMENT OF VASCULAR TISSUE IN SOME ORCHIDS

THE authors in their studies on the root tubers of some orchids of medicinal importance, viz., *Habenaria* genus encountered a characteristic novel arrangement of vascular tissue hitherto unreported in the literature.

The thick distal regions of the tubers of *H. edgeworthii* Hook. f. and *H. marginata* Colebr. showed a typical condition with 8-19 steles in former (Fig. 1) and 6-9 in the latter, arranged in a ring and each stele

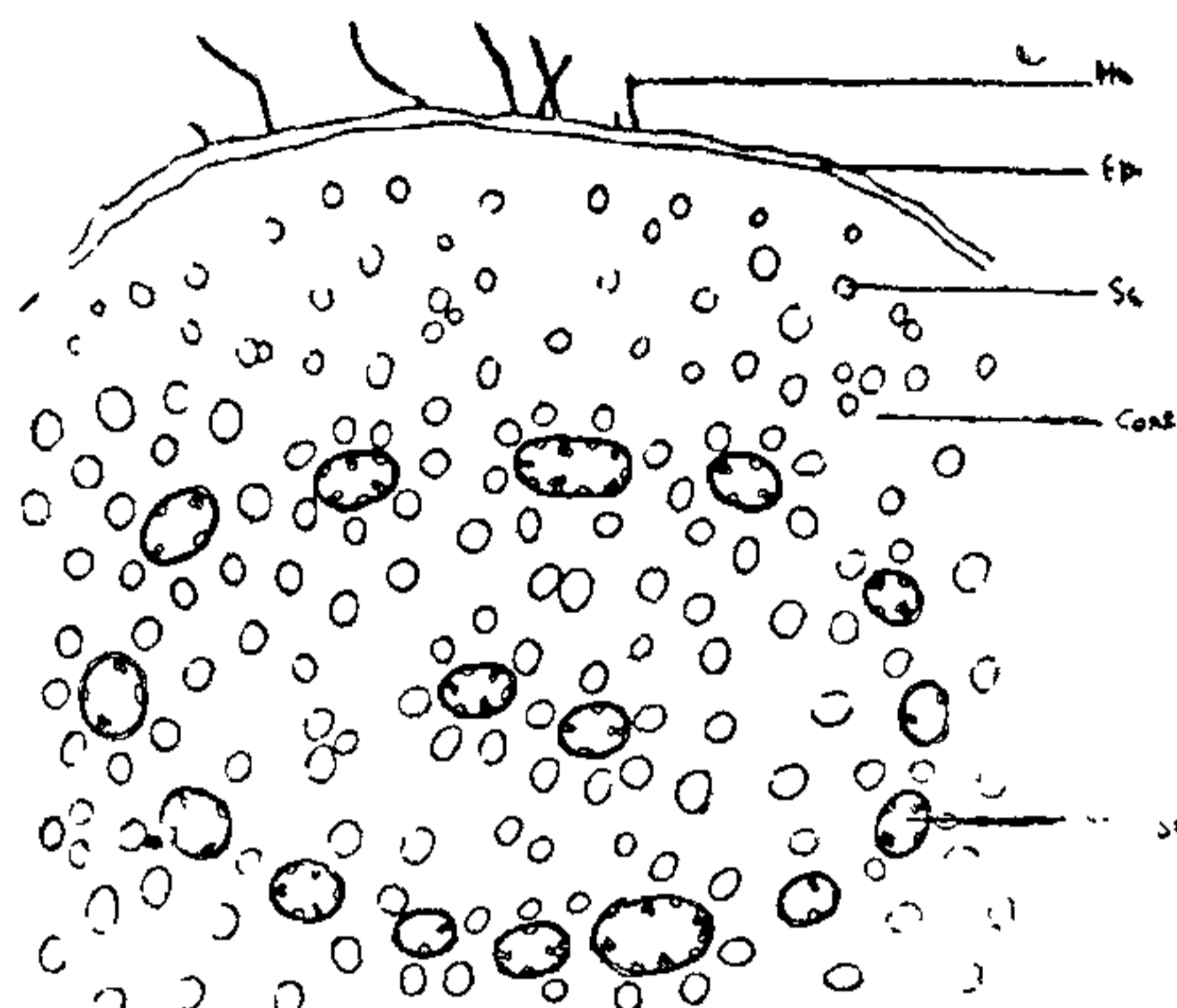


FIG. 1. A t.s. through distal portion of root tuber (diagrammatic), $\times 25$. (Epi., Epiblema; Cort., Cortex; Hr., Hair; Sc., Secretion canal; Ste., Stele).

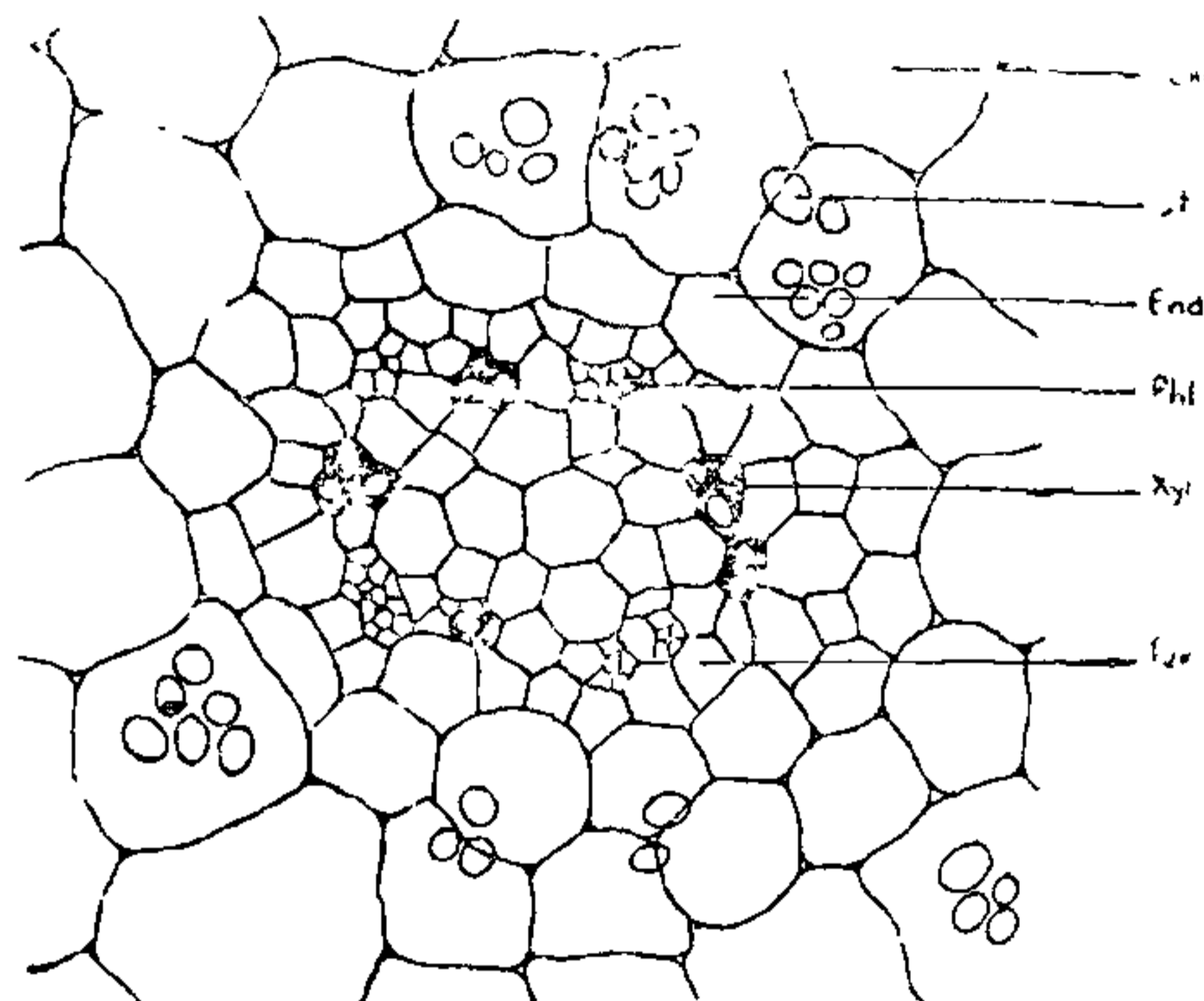


FIG. 2. Details of a portion of Fig. 1 showing tetraarch condition, $\times 270$. (Cort., Cortex; End., Endodermis; Per., Pericycle; Phl., Phloem; St., Starch grain; Xyl., Xylem).

in itself presents a clear mono- to pentarch condition (Fig. 2). Further in addition to the steles arranged in a ring, 1-8 steles each with mono- to triarch condition in *H. edgeworthii* and a single stele with mono- to diarch condition in *H. marginata* are found distributed within the parenchyma in the central region of the tuber. However, in the slender proximal region a normal stelar structure common to monocots was observed.

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