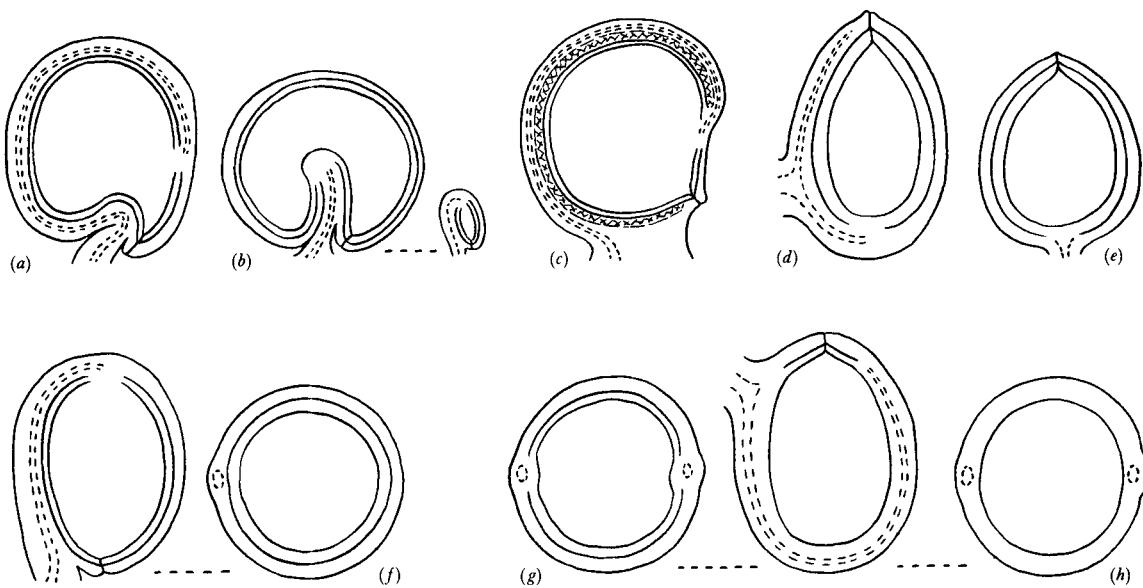


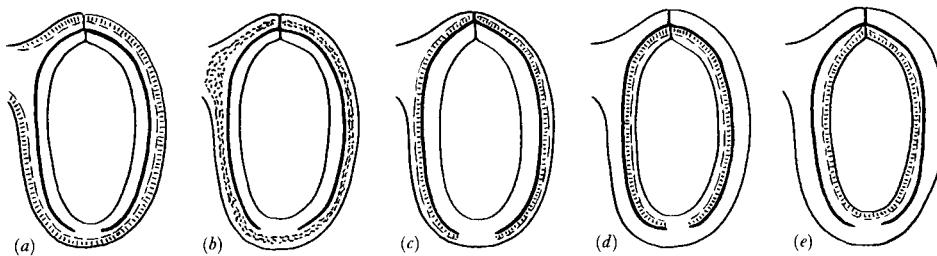
SEED-FORM

I



1 Seed-forms derived from the anatropous ovule, except (d) (hemianatropous) and (e) (orthotropous), showing testa, tegmen, and v.b. (a) the obcampylotropous with exaggerated raphe; (b) the campylotropous with exaggerated antiraphe; (c) the hilar seed with exaggerated hilum extending round most of the seed (as shown

by the tracheid bar in *Mucuna*); (d) the preraphe seed; (e) the orthotropous seed; (f) the anatropous seed with t.s.; (g) the perichalazal seed in t.s. and (h) the pachychalazal seed in t.s., both with similar l.s. (with free integuments at the micropylar end).

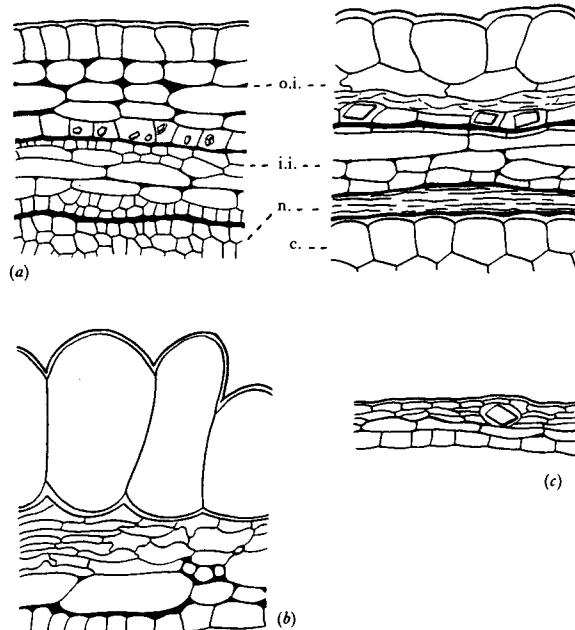


2 Diagrams of the main kinds of seed-structure, showing the testa and tegmen for an anatropous seed. (a) exo-

testal; (b) mesotestal; (c) endotestal; (d) exotegmic; (e) endotegmic.

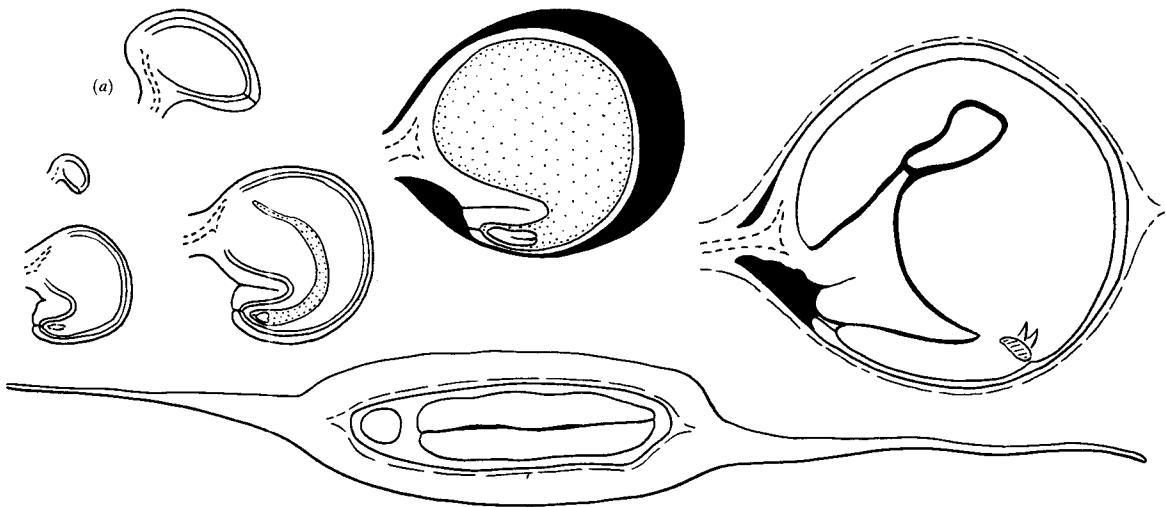
2

ACERACEAE



3 *Acer*, seed-coats in t.s., $\times 300$ (after Guérin 1901).
(a) *A. pseudoplatanus*, immature (left) with endotestal

crystals; (b) *A. pennsylvanicum*. (c) *A. negundo*.

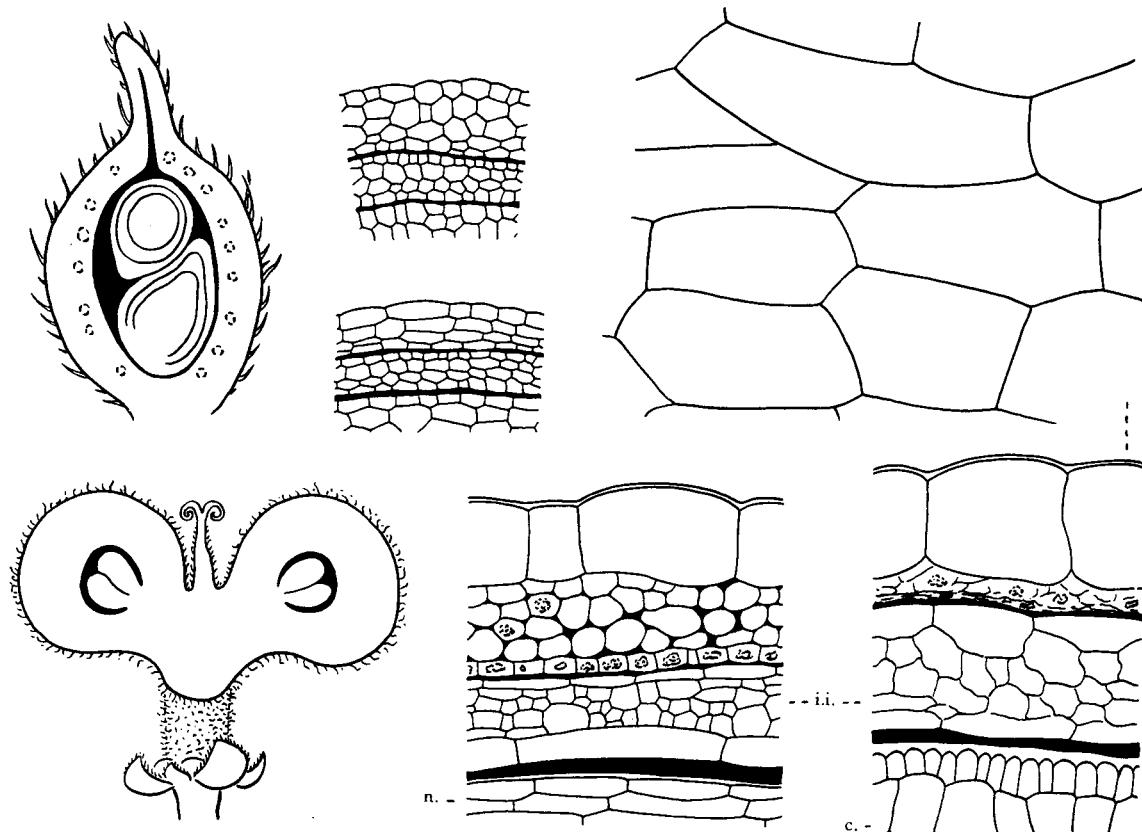


4 *Dipteraria sinensis*, (a) ovule in l.s. soon after fertilization, $\times 25$. Developing seeds in median l.s., mature seed

(right), $\times 8$. Fruit with seed in t.s., with thin woody endocarp, $\times 8$.

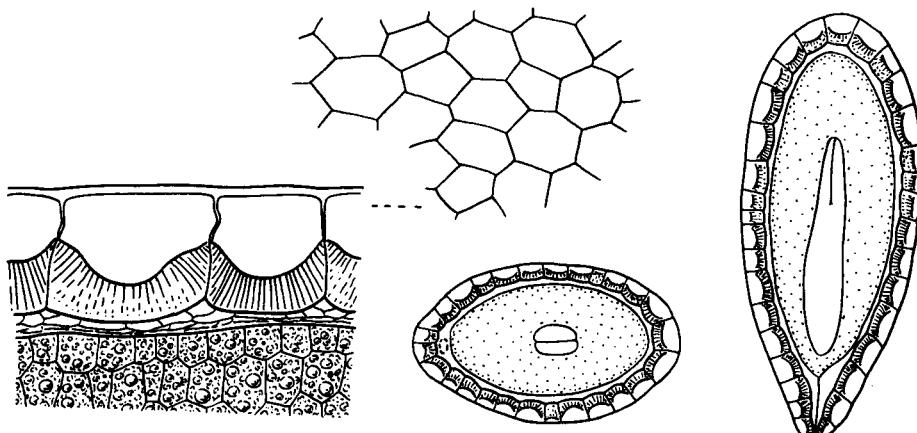
ACERACEAE & ACTINIDIACEAE

3



5 *Dipteraria sinensis*. Young fruit shortly after fertilization in l.s., $\times 8$; in t.s. of the follicle, $\times 25$. Wall of young

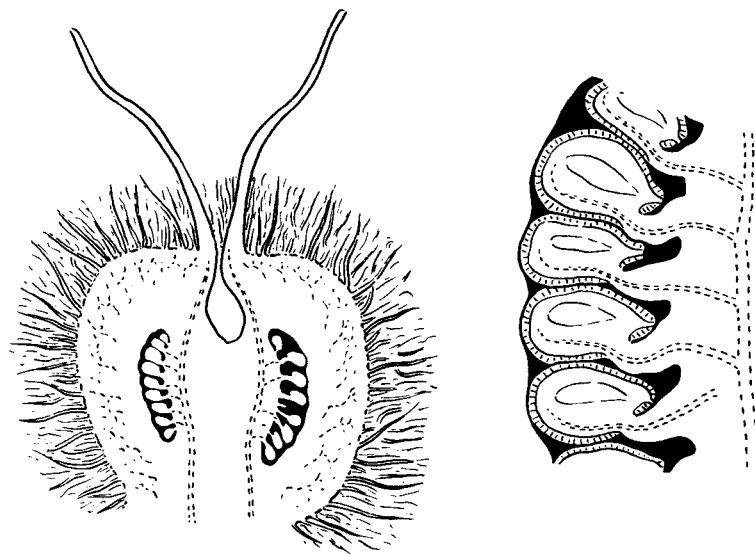
seeds soon after fertilization, of fully grown but immature seed, and of mature seed (lower right), $\times 200$.



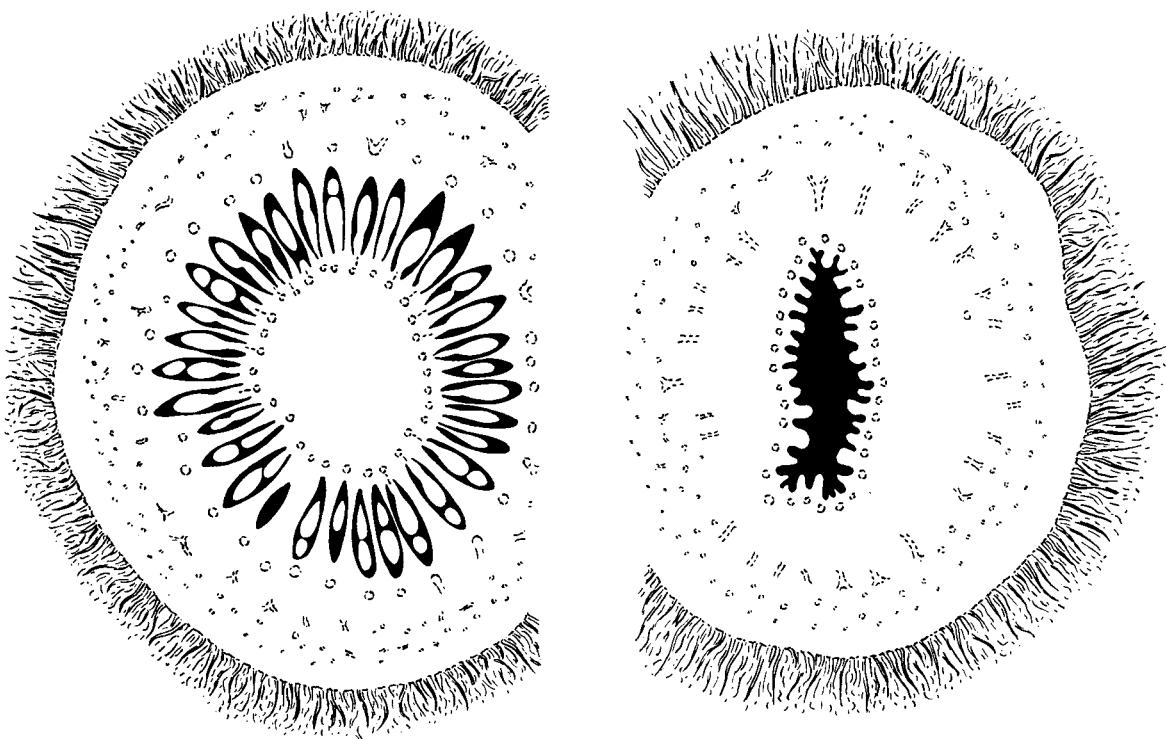
6 *Actinidia chinensis*. Seed in l.s. and t.s., $\times 25$. Seed-coat with endosperm in section, $\times 120$; o.e. facets, $\times 50$.

4

ACTINIDIACEAE



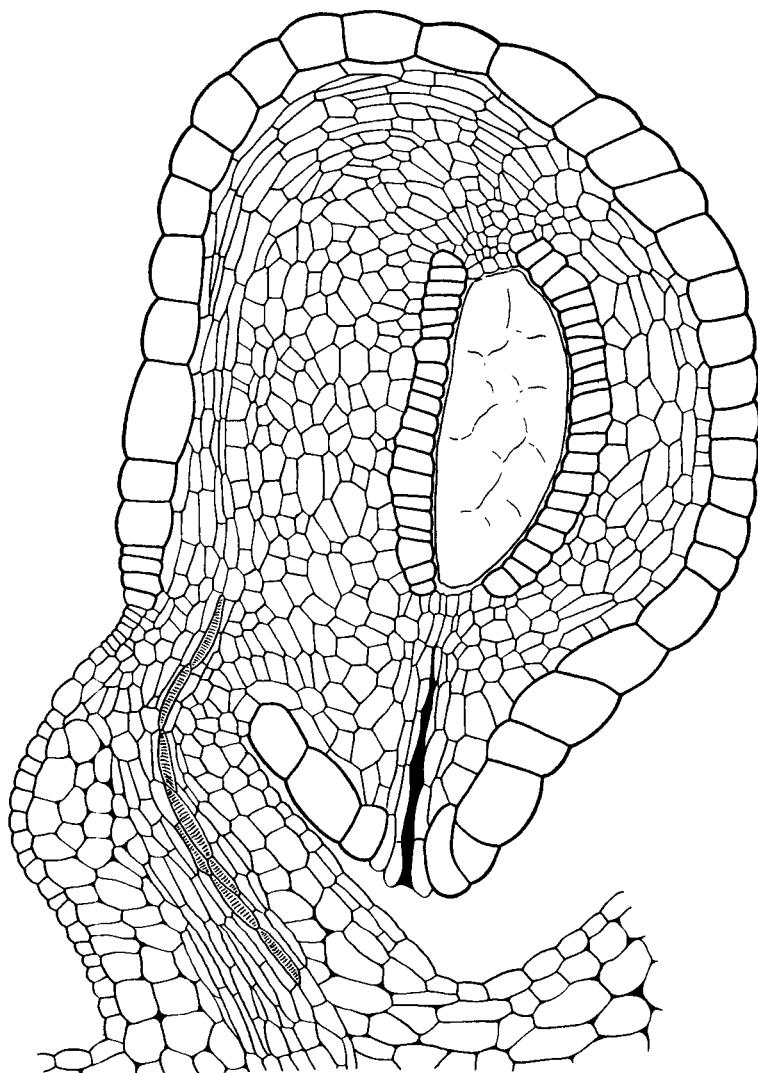
7 *Actinidia chinensis*. Ovary in l.s., $\times 5$. Ovules
in l.s., $\times 25$.



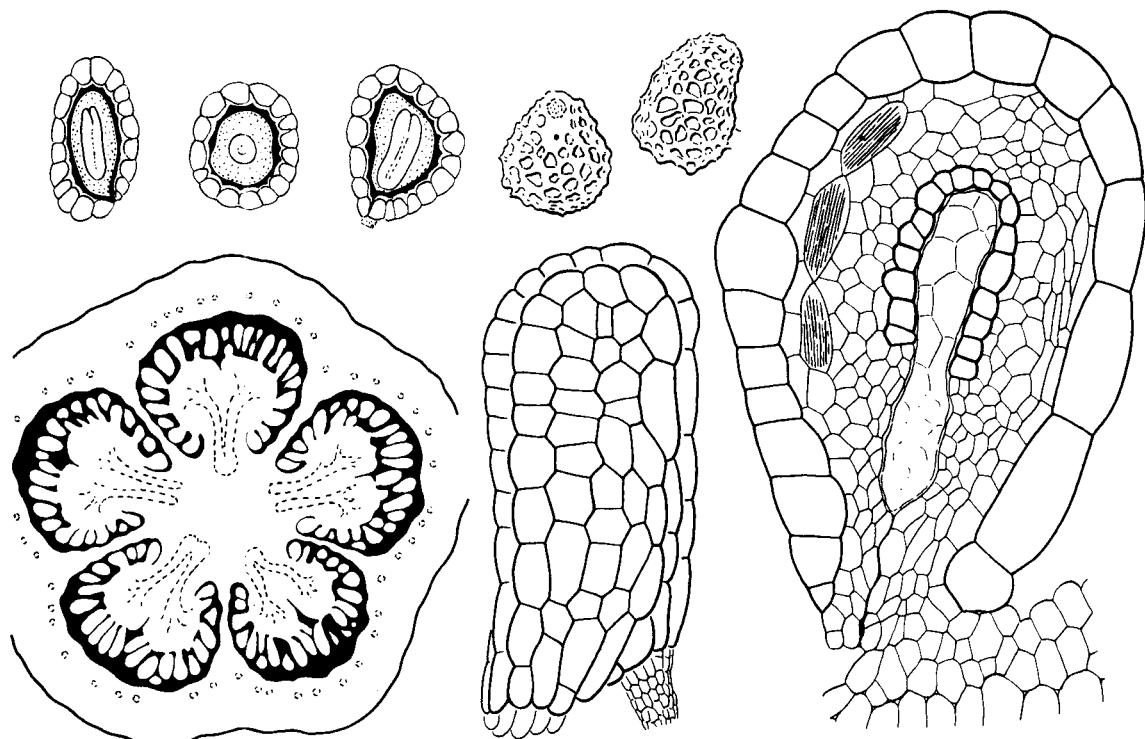
8 *Actinidia chinensis*. Ovary in t.s. near the base and
(right) at the base of the styles, $\times 10$.

ACTINIDIACEAE

5



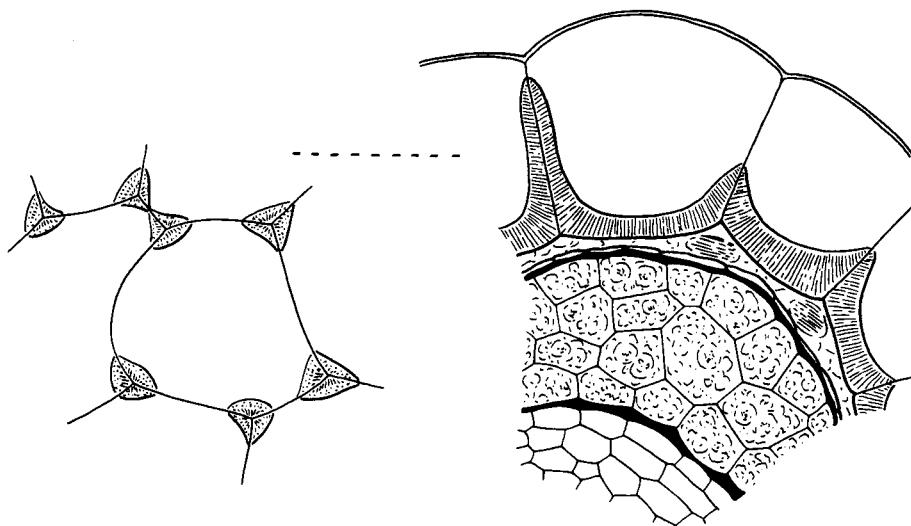
9 *Actinidia chinensis*. Ovule in l.s. shortly after
fertilization, $\times 225$.



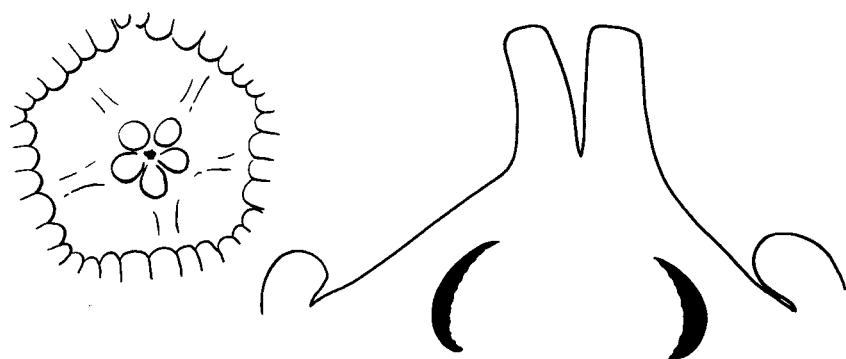
10 *Saurauia* sp. (RSNB 75). Ripe seeds in section and in surface-view of the hilum and side, $\times 25$. Ovary in t.s. at anthesis, $\times 18$. Ovule in surface-view and young seed in l.s. (with raphid-cells), with exotesta and endotesta beginning to lignify, $\times 225$.

ACTINIDIACEAE

7



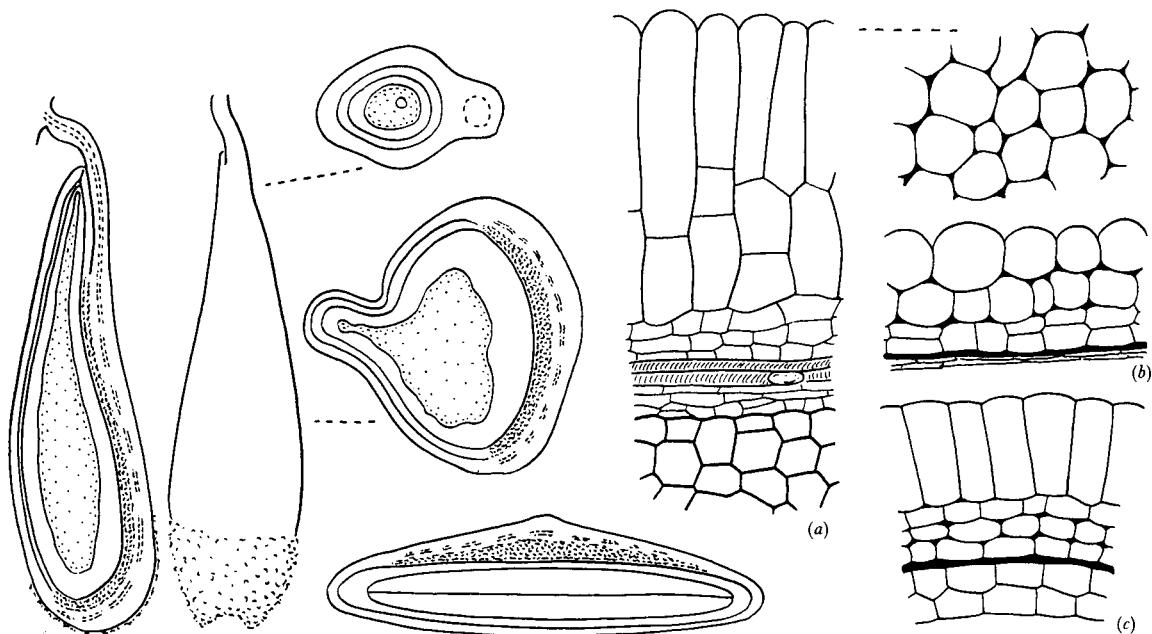
11 *Saurauia* sp. (RSNB 75). Ripe seed in t.s. with exotesta, raphid-cells, trace of endotesta, endosperm, and cotyledon-tissue, with facets of the exotesta, $\times 225$.



12 *Saurauia* sp. (RSNB 75). Ovary of very young flower-bud (left) with staminal ring and carpels just

forming, $\times 50$. Ovary and stamens of an older bud in l.s., $\times 50$.

ANACARDIACEAE

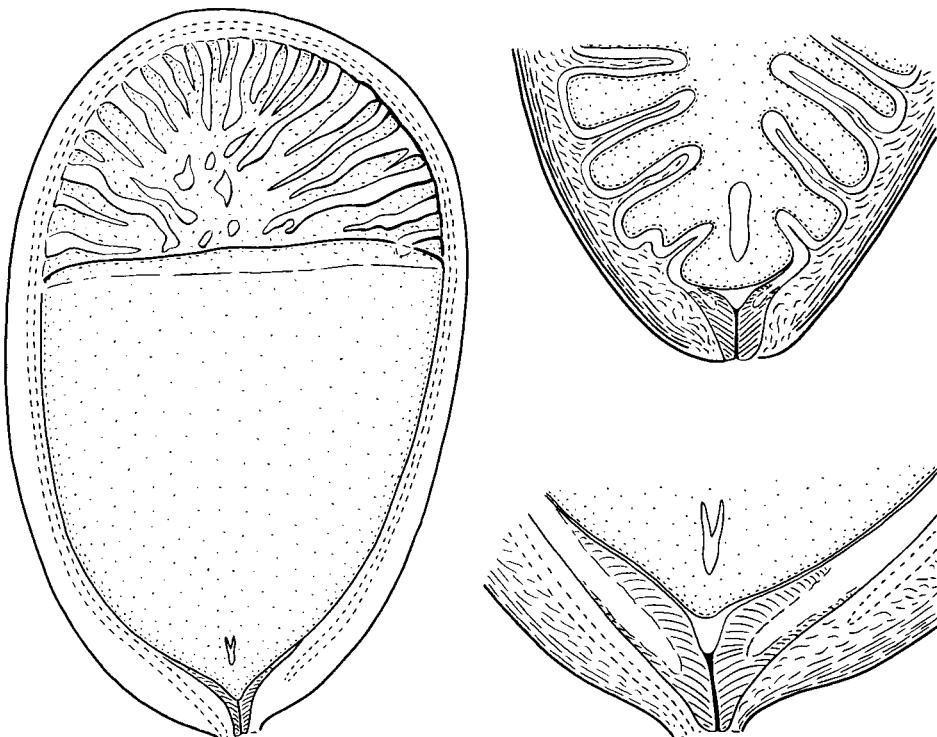


13 *Campnosperma minor*. Young seed in raphe-view and in l.s., with the extended hypostase stippled, $\times 12$; in t.s. $\times 25$. Fully grown but immature seed in t.s., showing the extensive hypostase (stippled) and thick testa before being crushed by the embryo, $\times 12$. Testa in t.s., $\times 225$;

(a) at the raphe with multiple exotesta, tracheids, and outer part of the hypostase; (b) along the antiraphe, with the exotesta scarcely differentiated, the tegmen crushed; (c) at the edge of the seed, with persistent tegmen of 2 cell-layers.

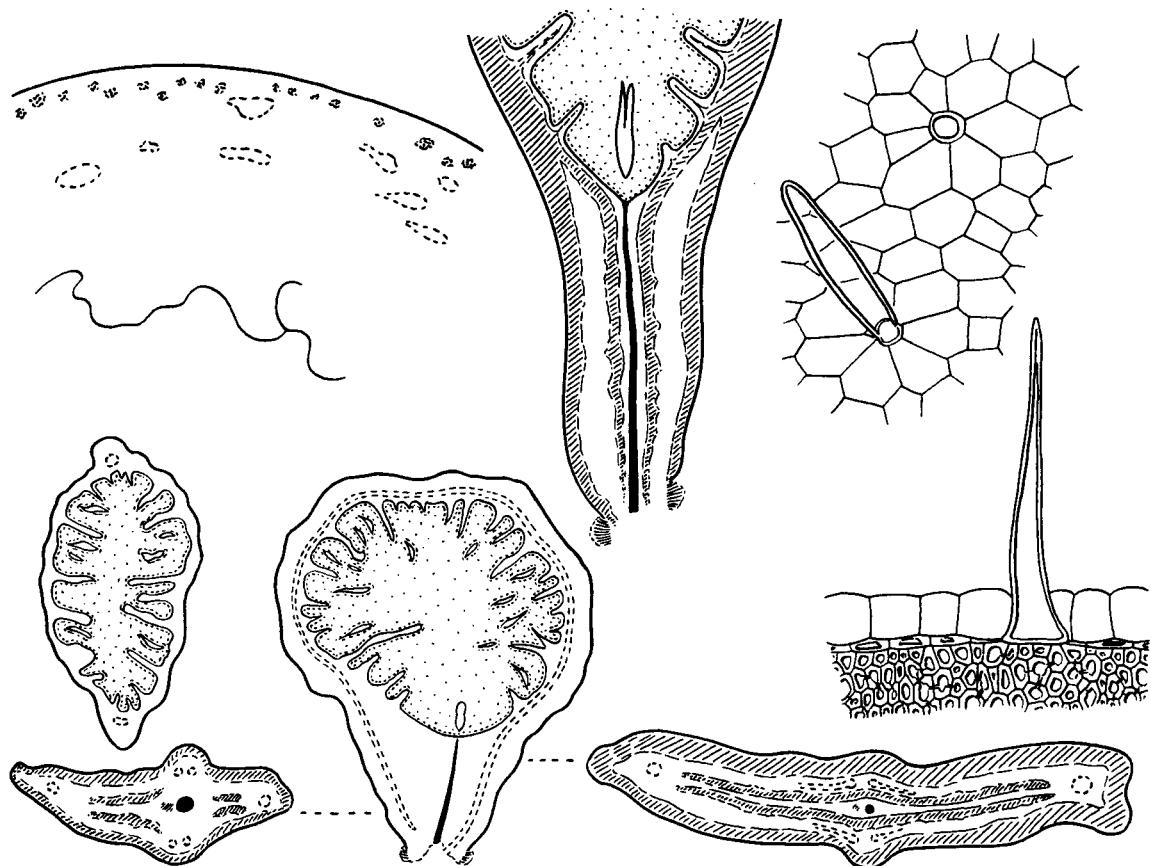
ANNONACEAE

9



14 *Cyathocalyx carinatus*. Seed in median l.s., $\times 5$.
Micropylar end in median and transmedian l.s., $\times 10$.
Woody tissue of the endostome hatched.

ANNONACEAE



15 *Goniothalamus* sp. (RSS 2302). Seed in l.s. and t.s., $\times 2$; micropylar end in t.s., $\times 5$; in transmedian l.s.,

$\times 10$; with the fibrous tissue hatched. Surface of the testa with hairs, $\times 225$. Pericarp in t.s., $\times 5$ (upper left).