

PLATE III.

FIG. 47.—An older embryo; *y*, the root; *x*, the shoot; *f*, foot; *a*, initial cell of shoot; *b*, initial cell of root. $\times 250$.

FIG. 48.—A younger, but larger embryo than the foregoing, with the same lettering. $\times 250$.

FIG. 49.—An advanced embryo; *r*, root; *c*, cotyledon; *s*, shoot; *f*, foot. $\times 160$.

FIG. 50.—From a photomicrograph. Lettering as before; *cal*, calyptra. This embryo is considerably older than the foregoing. $\times 50$.

FIG. 51.—Part of a prothallium containing tracheides; *a*, decayed spot where an embryo has probably disappeared; *t*, tracheides. $\times 250$.

FIG. 52.—Apical region of the shoot in vertical section; *a*, the initial cell. $\times 250$.

FIG. 53.—The same, in horizontal section; *a*, the apical cell. $\times 250$.

FIG. 54.—Longitudinal section of the apex of the cotyledon; *a*, apical cell. $\times 250$.

FIG. 55.—Apical region of the primary root; *a*, apical cell. $\times 250$.

FIG. 56.—Transverse section of the same; *a*, apical cell. $\times 250$.

FIG. 57.—Transverse section of two united embryos, *a* and *b*. *a*² is second root of *a*; *a*³, cotyledon of *a*; *x*, central cylinder of *a*; *b*², second root of *b*; *b*³, cotyledon of *b*; *y*, central cylinder of *b*. $\times 50$. (From a photomicrograph).

FIG. 58.—The same, a section through a lower region. Lettering as in the previous figure. *a*¹, first root of *a*; *b*¹, first root of *b*. $\times 50$. (From a photomicrograph.)

FIG. 59.—Section through the foot-region of the same embryos. Lettering as before. $\times 50$. (From a photomicrograph.)

FIG. 60.—Transverse section of a diarcheous primary root; *a*, endodermis; *x*, xylem; *y*, phloëm; *b*, parenchyma. $\times 250$.

PLATE IV.

FIG. 61.—Transverse section of the young stem, above the exit of the cotyledonary trace; *col*, cotyledonary trace; *c.c.*, central cylinder; *m*, medulla. $\times 50$. (From a photomicrograph).

FIG. 62.—The same, more highly magnified. $\times 160$. (From a photomicrograph).

FIG. 63.—Part of the central cylinder of the foregoing, more highly magnified; *en*, endodermis; *y*, phloëm; *x*, xylem; *camb*, cambium; *s. t.*, sieve-tube; *m*, medulla. $\times 220$. (From a photomicrograph).

FIG. 64.—Part of central cylinder of quite a young plant; *en*, endodermis; *ph*, phloëm; *camb*, cambium; *x*, xylem; *m.r.*, medullary ray.

FIG. 65.—Longitudinal section of an attached sporophyte; *r*, primary root; *x*, remains of cotyledon; *l*² and *l*³, developing leaves. $\times 20$. (From a photomicrograph).