

Gramineæ, the bicarinate leaves in *Peltandra*, the small, scale-like in *Smilax*, and finally the large, green leaf in *Arisæma* with petiole and blade. However, the structure of the first leaf succeeding the cotyledon does not always depend upon the presence or absence of an endosperm, for instance in the *Araceæ*. A hypocotyl is, sometimes, developed, as for instance in *Alisma*, *Agave* and *Smilax*. In regard to the roots we have seen the development of a coleorrhiza in *Gramineæ*, *Cyperaceæ* and *Commelinaceæ*; furthermore, the relative strong growth of the primary root in *Zea*, in *Agave* and *Smilax*, but most frequently the root system consists of secondary roots replacing the early fading primary.

(To be continued).

EXPLANATION OF PLATE IV.

In the figures the letters indicate as follows:—

R, the primary root; Cot., the cotyledon; L1, the first green leaf; PL, the plumule; S, the scutellum; H, the hypocotyl; B, bud in axil of cotyledon (Fig. 7), or of the first leaf (Fig. 12); E, the epiblast.

- Figure 1. *Agave Americana*, L., natural size.
 " 2. *Alisma Plantago*, L., var. *Americana*, R. et S., x 8.
 " 3. *Arisæma triphyllum*, Torr., longitudinal section; x 4.
 " 4. Same, a little older; x 4.
 " 5. Same, still older, showing the first green leaf fully developed; natural size.
 " 6. *Smilax rotundifolia*, L.; natural size.
 " 7. Same, part of the seedling, removed from the seed; x 5.
 " 8. *Cyperus vegetus*, Willd., the embryo; x 75.
 " 9. Same, germinating seed, surrounded by the pericarp; x 26.
 " 10. Same, the seedling, removed from the seed; x 26.
 " 11. Same, a more advanced stage; x 18.
 " 12. *Rhynchospora alba*, Vahl., seedling; magnified.
 " 13. *Secale cereale*, L., germinating grain, seen from the front, but upper half of grain cut off; magnified.
 " 14. Same, seedling removed from the grain, side-view; magnified.
 " 15. *Zea mays*, L., germinating grain; natural size.
 " 16. Same, longitudinal section; natural size.
 " 17. Same, a more advanced stage; natural size.
 " 18. *Peltandra undulata*, Rafin., natural size.

BLUE BIRDS OF THE MARITIME PROVINCES.

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As there seems to be a general misunderstanding among people in regard to our blue birds, i.e. birds having some blue in their plumage, it has occurred to me that a short paper on this subject might prove of considerable benefit, for at any meeting that the writer has addressed, about birds, this question has always come up. Especially among school teachers, and normal