

EXPLANATION OF PLATE I.

CYPERUS. — (1) Small plant of *C. diandrus*; (2) a spikelet magnified; (3) a piece of the rhachis with one scale enclosing its flower; (4) a separate flower more magnified. — (5) *C. erythrorhizos*, a spikelet magnified; the lower scales and flowers have fallen, showing the small internal scales of the section *Papyrus*, formed of the winged margins of the joints of the rhachis detached; (6) a separate one, more enlarged; (7) a flower; (8) an achene, cut in two. — (9) *C. dentatus*, a piece of the rhachis of a spike with the lower part of one scale, showing how it is decurrent on the joint beneath (cut across) to form scale-like wings.

DULICHIMUM. — (1) Upper part of a plant of *D. spathaceum*; (2) part of a spikelet somewhat enlarged; (3) piece of rhachis, and one scale decurrent on the joint beneath; (4) magnified flower.

KYLLINGA. — (1) Plant of *K. pumila*; (2) one-flowered spikelet on a piece of the rhachis, enlarged; (3) the same, more enlarged and open; (4) achene; and (5) section of same magnified.



EXPLANATION OF PLATE II.

HEMICARPHA.—(1) Plant of *H. subsquarrosa*, natural size; (2) a spikelet enlarged, with its bract; (3) magnified scale of the same; (5) a flower, with its single stamen and minute internal scale, magnified; (6) achene, magnified.

LIPOCARPHA.—(1) Upper part of plants of *L. maculata*, with spikelets; (2) diagram of a flower, representing the ovary between the two internal scales, a single stamen, the scale of the spikelet on one side, and the axis of the spikelet on the other; (3) scale of spikelet detached; (4) a flower with its two inner scales; (5) achene, magnified.

FUIRENA.—(1) Upper portion of plant of *F. squarrosa*, var. *pumila*; (2) scale of spike enclosing a flower; (3) open scale of same; (4) flower; (5) one of the scales and one of the bristles of the perianth; (6) achene, and (7) section of same.



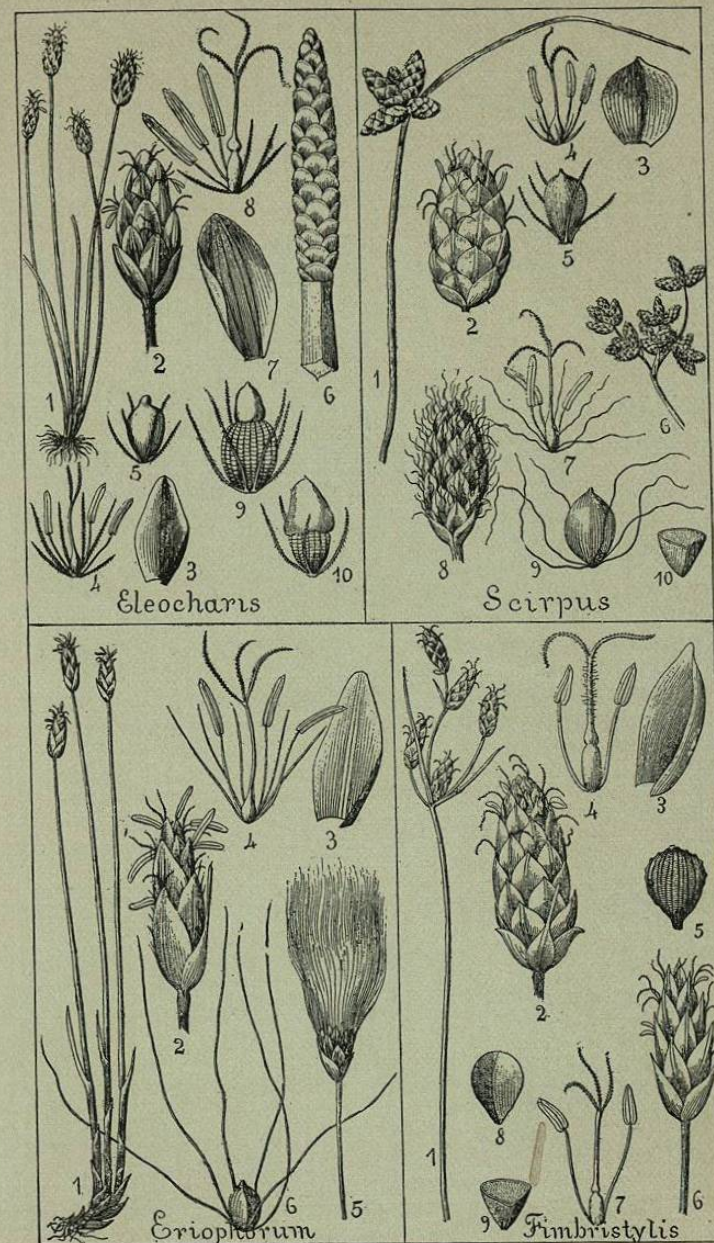
EXPLANATION OF PLATE III.

ELEOCHARIS. — (1) Small plant of *E. olivacea*; (2) the spikelet enlarged; (3) detached scale; (4) flower; (5) achene and bristles. — (6) *E. quadrangulata*, spikelet; (7) a scale; (8) flower; (9) achene and bristles. — (10) *E. tuberculosa*; the achene with its great tubercle, and bristles.

SCIRPUS. — (1) Summit of plant of small *S. debilis*; (2) a spikelet; (3) a scale of the same, and (4) flower; (5) achene with its bristles.

ERIOPHORUM. — (1) Small plant of *E. alpinum*, in flower; (2) spikelet; (3) a scale, and (4) a flower from the same; (5) the spikelet, in fruit, the bristles forming a cottony tuft; (6) achene and its bristles. — (6, under *Scirpus*) a small portion of the inflorescence of *E. cyperinum*; (7) a flower; (8) a spikelet in fruit; (9) achene from the same, with the tortuous bristles; (10) section of the achene.

FIMBRISTYLIS. — (1) Summit of a small flowering stem of *F. laxa*; (2) a spikelet of the same; (3) a detached scale, and (4) a flower of the same; (5) achene. — *F. autumnalis*; (6), a spikelet, enlarged; (7) flower; (8) achene, and (9) section of the same.



EXPLANATION OF PLATE IV.

DICHROMENA. — (1) Head and involucre of *D. latifolia*; (2) a scale from one of the spikelets, and (3) the same cut across; (4) a flower; (5) achene with its tubercle.

PSILOCARYA. — (1) Part of plant, (2) enlarged spikelet, (3) detached scale, (4) flower, and (5) achene with its beak, of *P. scirpoides*.

RHYNCHOSPORA. — (1) Upper part of flowering stem of *R. Torreyana*; (2) a spikelet; (3) detached flower; (4) achene, with short bristles at its base; (5) one of these bristles more magnified.

R. (§ CERATOSCHÆNUS). — (1) Upper part of fruiting plant, (2) detached spikelet, (3) flower, and (4) beaked achene, with its bristles, of *R. macrostachya*.

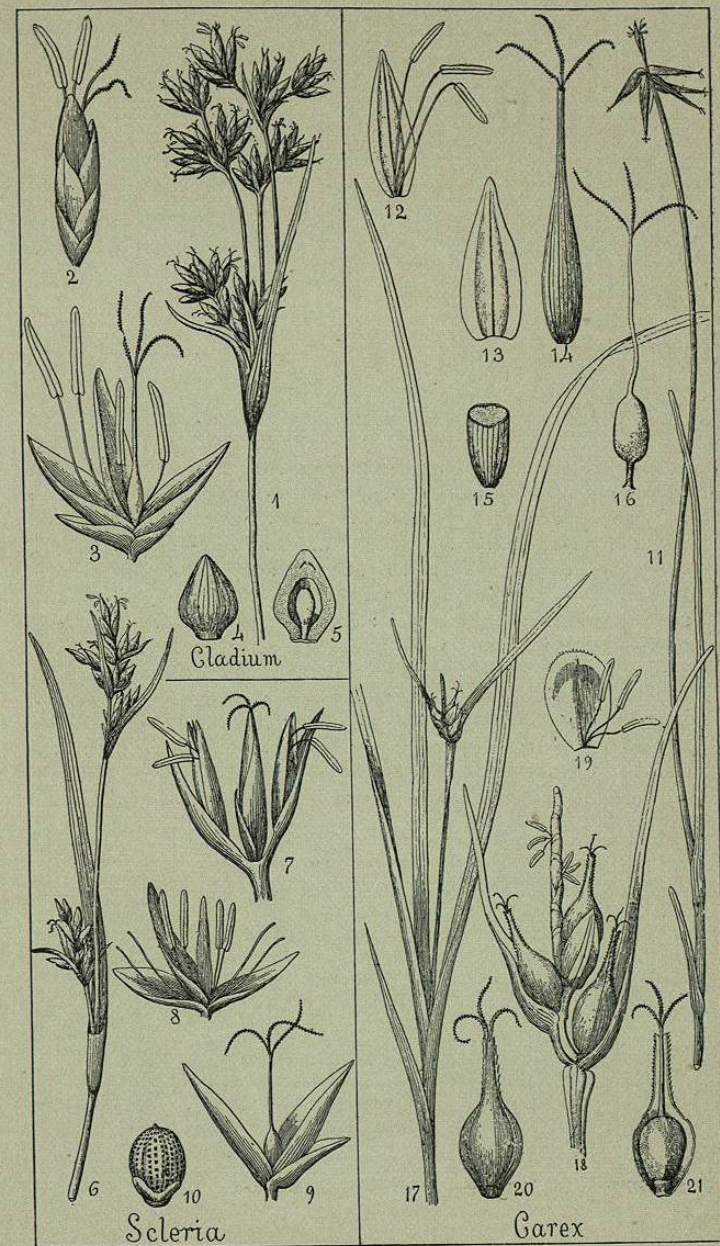


EXPLANATION OF PLATE V.

CLADIUM.—(1) Summit of a plant of *C. mariscoides*; (2) detached spikelet; (3) same, open, showing a staminate and a perfect flower; (4) the nut-like achene, and (5) the longitudinal section of the same.

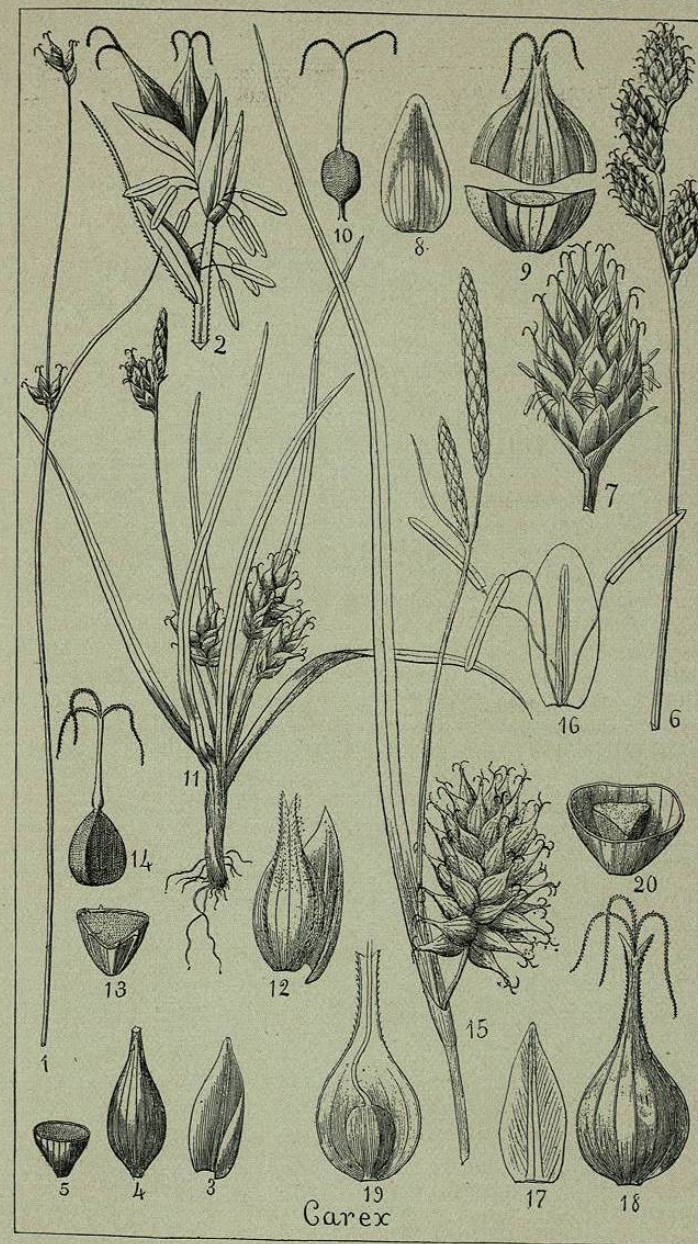
SCLERIA.—(6) Summit of a flowering stem of *S. reticularis*; (7) three spikelets from a cluster, the middle one pistillate, the lateral ones staminate; (8) staminate spikelet displaying four male flowers, the filaments of two of them having lost their anthers; (9) pistillate spikelet displaying a single pistillate flower; (10) achene with the 3-lobed double cup underneath.

CAREX.—(11) Plant of *C. pauciflora*; (12) a staminate flower with its scale; (13) scale, and (14) mature pistillate flower, in its perigynium; (15) cross-section of perigynium and of the contained achene; (16) achene on its stalk, style and stigmas. — (17) *C. Jamesii*, upper part of flowering plant; (18) the spike enlarged; (19) a staminate flower and its scale; (20) pistillate flower in its perigynium; (21) the same with half the perigynium cut away to show the contained achene and style.



EXPLANATION OF PLATE VI.

CAREX. — (1) *C. trisperma*, upper part of a stem in fruit; (2) enlarged spike displayed, with three staminate and two pistillate flowers; (3) a scale, and (4) a ripe perigynium, of the latter; with (5) a section of the perigynium near the base, and of the contained achene. — (6) *C. straminea*, var. *brevior*, summit of a fruiting plant; (7) a spike enlarged; (8) scale of a pistillate flower; (9) the winged perigynium and the contained achene cut across; (10) detached achene with persistent style and stigmas. — (11) *C. umbellata*, whole plant; (12) a perigynium and its scale; (13) cross-section toward the base of perigynium and its contained achene; (14) detached achene with its persistent style and stigmas. — *C. bullata*; (15) upper part of plant in fruit, with one pistillate and two staminate spikes; (16) one of its staminate flowers with the scale; (17) a pistillate scale, and (18) mature perigynium; (19) longitudinal section of the latter, showing the achene and its style, and (20) cross section of the same.



EXPLANATION OF PLATE VII.

LEERSIA.—(1) Panicle of *L. oryzoides*, reduced in size; (2) a branchlet of the same, with its spikelets, of the natural size; and (3) an open spikelet in flower, enlarged.

ZIZANIA.—(1) A staminate, and (2) a pistillate flower or spikelet of *Z. aquatica*; (3) a magnified pistil with a pair of squamulae or hypogynous scales; (4) a grain, and a magnified longitudinal section of the lower part of the same, showing the embryo at the outside of the base of the albumen.

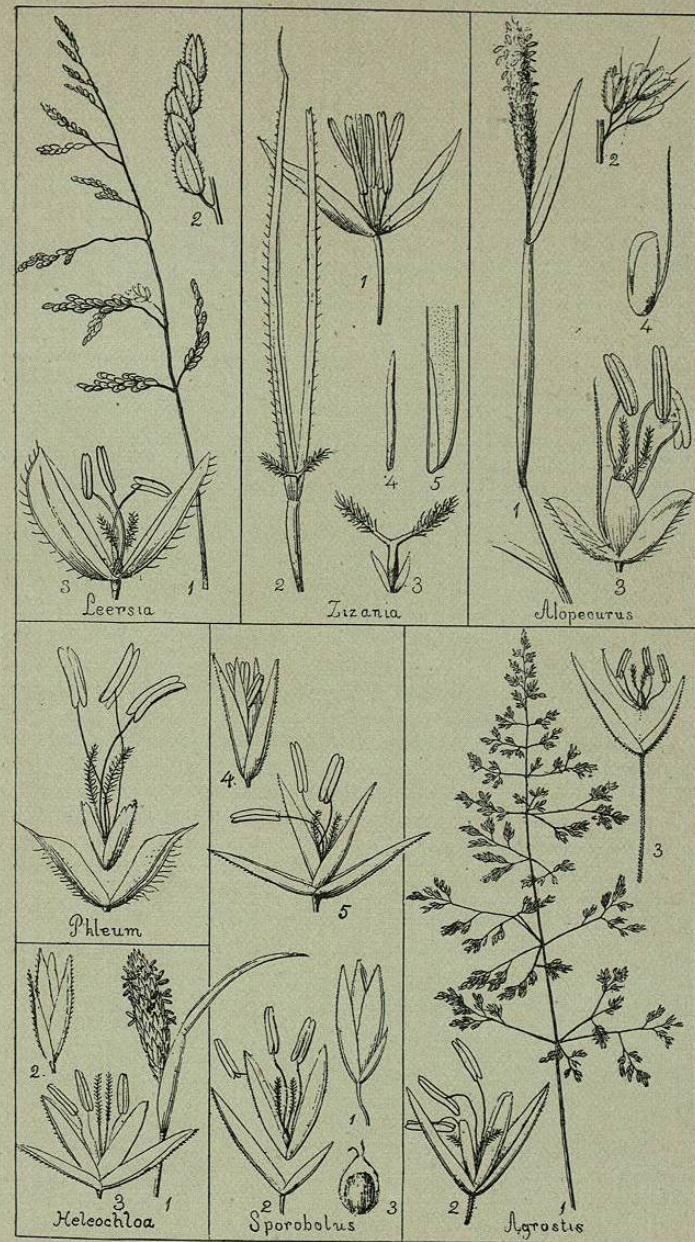
ALOPECURUS.—(1) Part of a plant of *A. geniculatus*, in flower; (2) a few spikelets from the spike-like inflorescence, moderately magnified; (3) an open spikelet in flower, more magnified, and (4) the single flowering glume detached.

PHLEUM.—A detached spikelet of *P. pratense*, having the flower with its glume and palet raised above the empty glumes, magnified.

HELEOCHLOA.—(1) Inflorescence of *H. scænoides*; (2) a separate enlarged spikelet; and (3) the same open, in flower.

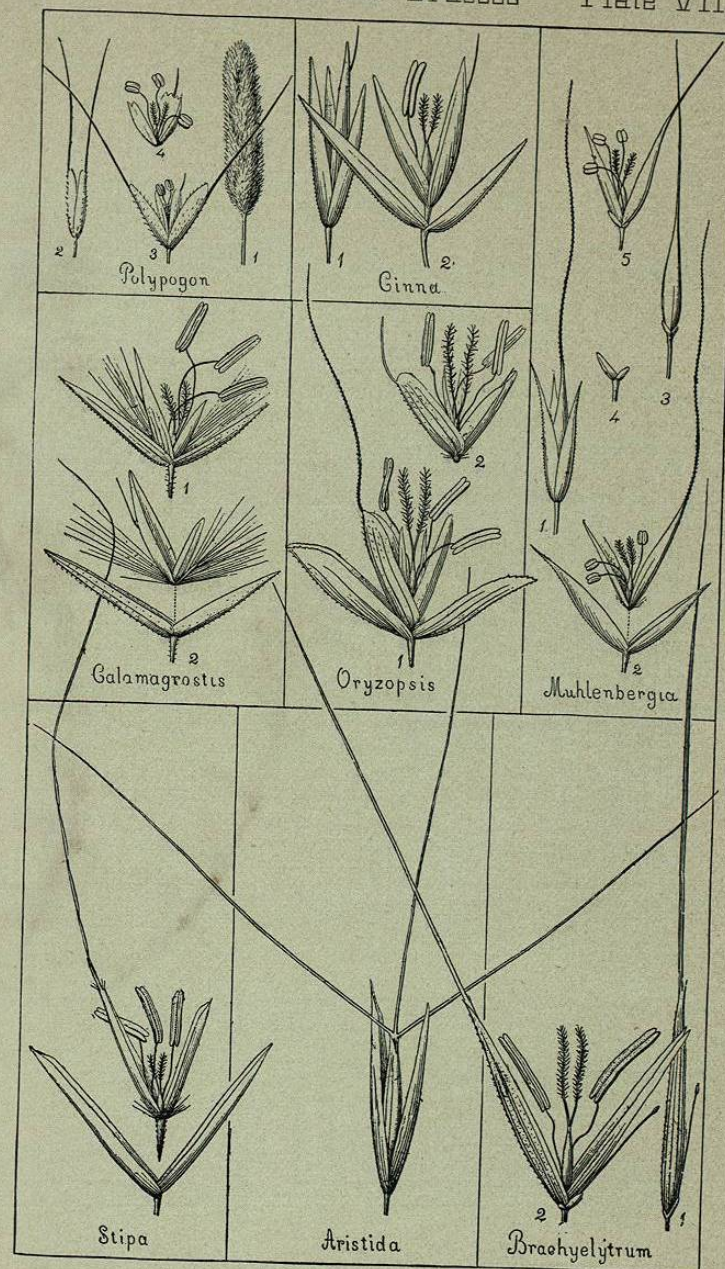
SPOROBOLUS.—(1) A spikelet of *S. cryptandrus*, magnified; (2) the same, with the flower open, raised above the empty glumes; and (3) the fruit, more magnified, showing the seed loose in the pericarp (utricle).—(4) An enlarged spikelet of *E. vaginæflora*; and (5) the same displayed.

AGROSTIS.—(1) Panicle of *A. alba*, var. *vulgaris*, with (2) an enlarged open spikelet of the same; also (3) the rough pedicel and glumes of *A. scabra*, with the flower separated, the latter having no palet.



EXPLANATION OF PLATE VIII.

- POLYPOGON.** — (1) Spike-like contracted panicle of *P. Monspeliensis*; (2) an enlarged detached spikelet, showing the long awns to the empty glumes; (3) the same open in flower; and (4) a separate flower without the empty glumes.
- CINNA.** — (1) A magnified spikelet of *C. arundinacea*; and (2) the same open, displaying the flowering glume and palet, the single stamen, and the pistil.
- MUHLENBERGIA.** — (1) A magnified closed spikelet of *M. sylvatica*; (2) the same with the open flower raised out of the empty glumes. — (3) A magnified spikelet of *M. diffusa*; (4) its minute and unequal empty glumes more magnified; and (5) an open spikelet of the same.
- BRACHYELYTRUM.** — (1) A spikelet of *B. aristatum* enlarged; (2) the same displayed.
- CALAMAGROSTIS.** — (1) An open spikelet of *C. Canadensis*, enlarged, displaying all the parts; (2) the same with the flower raised out of the empty glumes, showing the hairy rudiment behind the palet.
- ORYZOPSIS.** — (1) An open magnified spikelet of *O. asperifolia*; and (2) the flower of the same removed from the empty glumes. Notice the remarkably long squamulae or hypogynous scales, which here nearly equal the glume in length.
- STIPA.** — Empty glumes and flower (a little separated) of *S. avenacea*, enlarged.
- ARISTIDA.** — A spikelet of *A. purpurascens*, enlarged.



EXPLANATION OF PLATE IX.

SPARTINA.—(1) Portion of the inflorescence of *S. stricta*, of the natural size; (2) a spikelet enlarged; and (3) the same displayed, the flower raised above the empty glumes.

CTENIUM.—(1) Spike of *C. Americanum*; (2) a single spikelet magnified; and (3) the same displayed, the empty glumes separated.

BOUTELOUA.—(1) A portion of the compound spike of *B. racemosa*, of the natural size; and (2) a spikelet displayed and magnified, the flowers raised out of the empty glumes.

GYMNOPOGON.—(1) Inflorescence of *G. racemosus*, reduced in size; and (2) a magnified spikelet with the parts displayed.

CYNODON.—(1) Inflorescence of *C. Dactylon*, of digitate spikes; (2) a spikelet magnified and displayed, showing a perfect flower and a rudiment.

ELEUSINE.—(1) One of the spikes from the digitate inflorescence of *E. Indica*; (2) a magnified spikelet; (3) the same with the flowers more displayed; (4) a flower from the last, showing its parts; (5) the fruit magnified, showing the seed loose in the utricle; and (6) the wrinkled seed detached.—(1, under *Dactyloctenium*) Inflorescence of *E. Aegyptiaca*, of digitate spikes; (2) one of the spikelets magnified; (3) the fruit magnified, showing the seed loose in the thin pericarp (utricle); and (4) the wrinkled seed more magnified.

DIPLACHNE.—(1) Small portion of the inflorescence of *D. fascicularis*; (2) one of its spikelets displayed and magnified; (3) an open flower of the same.

