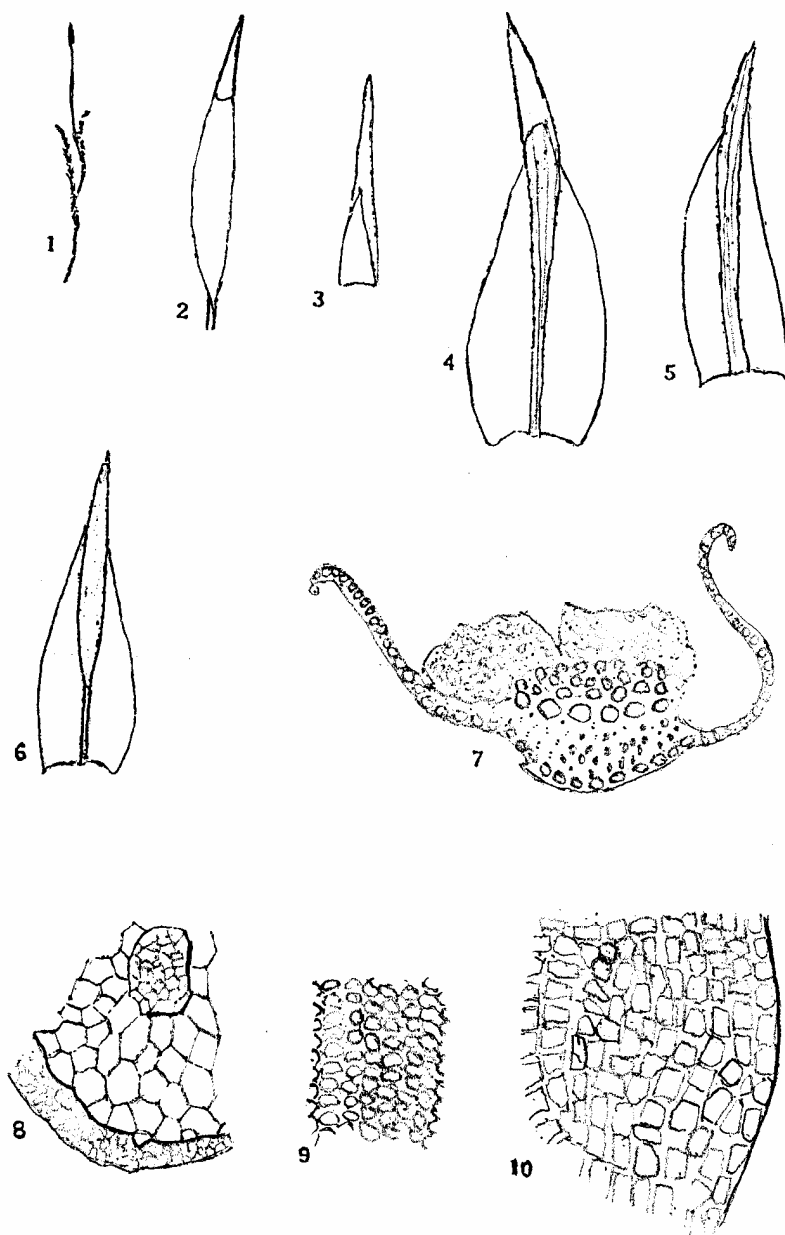


Crossidium elatum sp. nov.

PLATE III

Apparently dioicous, no antheridial found growing, in rather compact tufts with simple or slightly branching stems up to 2 cm. high; stems in cross-section showing a large central strand 40-50 μ in diameter, with outer walls in lower part of stem mostly of 3, thicknesses of small, thick-walled cells; leaves erect-appressed or incurved when dry, rather widely spreading when moist, those of upper stem about 2 mm. long, ovate-lanceolate, apiculate, entire, more or less recurved on the borders; costa stout, percurrent, widest above the middle, in cross-section in the widest part showing about 6 guide-cells, a large stereid band on the under side and about two rows of cells on the upper side bearing a dense mass of filaments some 4 or 5 cells high, the terminal cell smooth and mostly convex or somewhat mammosely pointed above; leaf-cells smooth the median nearly square or slightly transversely elongate, up to 4 by 6 μ to 6 by 6 μ , the small cells often extending to near the leaf-base toward the margin, the basal cells larger, short-rectangular at the angles, often much longer toward the costa; perichaetial leaves very similar to those of the stem, but base of costa narrower and basal cells longer; seta 10-12 mm. long, bearing an erect, nearly cylindrical capsule about 2 mm. long without the lid, the lid with a subulate, slightly oblique beak about 1 mm. long, with cells in somewhat oblique rows; stomata crowded, in about 2 rows at base of capsule; peristome teeth (all immature or in very poor condition) apparently rather short, nearly erect, densely papillose, from a basal membrane extending well above the rim of capsule; spores minutely punctate, about 12 μ in diameter; calyptra cucullate, slender, slightly rough at apex, slit nearly half way up and extending well down the capsule.

Matucana, Peru, on rocky slope at about 8000 ft; March 14-18,
1923. G. S. Bryan 52.



CROSSIDIUM ELATUM sp. nov.
PLATE III

Fig 1. About natural size

2. Capsule X14

3. Calyptra X14

4. Upper stem-leaf X 25

5. Middle stem-leaf X 25

6. Perichaetial leaf X 25

7. Cross-section of stem-leaf X 180

8. Cross-section of stem X 180

9. Median cells of leaf X 180

10. Cells at basal angle X 180