Physosiphon obliquipetalus A. & S. sp. nov. Herba gracilis, caespitosa. Caulis vaginis inconspicuis arcte ornatus, unifolius. Folium erectum, lanceolato-oblongum, coriaceum, crassum in vivo, medio acute sulcatum. Inflorescentiae singulae vel binae, folium superantes. Racemi breves, secundiflori. Sepala in tubum connata, omnia unicarinata. Petala minuta, obliquissime obtriangularia. Labellum minutissimum, triangulari-ovatum, concavum, basi callo transverso ornatum.

Plant slender, caespitose. Roots numerous, fibrous, flexuous, minutely puberulent, longitudinally sulcate in the dried specimen. Stems slender, monophyllous, entirely concealed by sheaths, 2-8 cm. long, about .9 mm. in diameter. Sheaths two to six (usually five to six), long, tubular, tightly clasping, with about six prominent longitudinal nerves forming angles, terminating in an infundibuliform spreading margined fimbriate apex, the uppermost sheath having a looser upper portion with more prominent lamina. Leaf solitary, erect, lanceolate-oblong, sometimes oblique or falcate, 2.2-4.3 cm. long, 3.7-7.7 mm. wide, fleshy in the alcoholized specimen, coriaceous in dried material, acute, dorsally mucronate, cuneate-narrowed to a short channelled petiole, mid-nerve sulcate above and carinate beneath. Inflorescences one or two, exceeding the leaf. Peduncle below the inflorescence filiform, 3-4 cm. long, with about four inconspicuous infundibuliform sheaths. Racemes short. secund, erect or slightly arcuate, the mature ones 2-2.8 cm. long, 7-11-flowered. Sepals all connate into a tube which is about 4 mm. long. Lateral sepals concave-saccate at the base. bidentate above, acutish at the apex, each 1-nerved and sharply keeled on the dorsal surface. Dorsal sepal a little shorter and broader than each lateral sepal, about 3.45 mm. long (from the base), obtuse, with a broadly ovate free tip about 1 mm. long, 3-nerved with the mid-nerve carinate, especially at the base. Petals minute, very obliquely obtriangular, about 1.3 mm. long, 1-nerved, very narrow at the base. Labellum very minute, broadly triangular-ovate, .9 mm. long (including the short claw), subequally wide below, concave, obtuse, 3-nerved, with a fleshy transverse keel at the base. Column minute, with a fleshy erect lobe in the rear and with a thinner but prominent triangular extension of the rear wall of the clinandrium. [Plate 22: habit life size. 1. labellum × 14. 2, petals with column and labellum  $\times$  7. 3, petal, spread, with column and labellum  $\times$  7. 4, flower, side view × 6. 5, flower, torn open to show parts  $\times$  6.1

Physosiphon obliquipetalus is allied to P. Cooperi Ames, but it has far different petals and lip.

Costa Rica, Cartago, Santa Clara, C. H. Lankester 680. 6500 feet altitude. (Type in Herb. Ames No. 28178.)