not definitely known in a wild state,[1] appears to have enjoyed a world-wide distribution including all continents and extending from California to India, from Greenland to Argentina, and from Tasmania to Spitzbergen.

Smithsonian Institution, Washington, 2 May, 1901.

Plate VII.—Canadian types.

Figures 1 and 2.—*Whittleseya desiderata*, D. W., Fig. 1*a*, enlargement (x4) to show the vascular bands of the leaf.
Harrington River, N. S.; Riversdale formation.

Figure 3.—*Whittleseya brevifolia*, D.W., Fig. 3*a*, detail showing the nervation (x4)
Harrington River, N. S.; Riversdale formation.

Figure 4.—*Whittleseya Dawsoniana*, D. W., Fig. 4*a*, enlargement (x4) to show the vascular bands.
St. John, N. B.; Lancaster formation.

Appalachian types.

Figure 5.—*Whittleseya elegans*, Newb., showing the average form and proportions.
Roof of Sharon coal, Akron, Ohio; upper part of Pottsville.

Figure 6.—*Whittleseya undulata*, Lx., slightly narrower than the normal form labelled by Lesquereux with this name.
Roof of Pratt coal, Dolomite, Ala.; Pratt group, Upper Pottsville.

Figure 7.—*Whittleseya microphylla*, Lx.
Near Fayetteville, Ark.; Coal-bearing shale, Upper Pottsville.

Figure 8.—*Whittleseya Campbelli*, D. W.
Lincoln Mines, Southern Anthracite field, Pa.;
Lower Lykens division, Pottsville.

SOME NEW CANADIAN GENTIANS.[2]

By THEO. HOLM.

GENTIANA MACOUNII.—Annual or sometimes biennial, glabrous except the calyx: stem strict, quadrangular, 5 to 30 cm. high, branched from the base: lowest leaves spathulate or oblong lanceolate, the upper linear-lanceolate, acute: peduncles long and stout, 1-flowered: calyx purplish-green, unequally cleft to near the middle, 4-lobed, the longer lobes lanceolate, the shorter ovate with broad membranaceous margins, all acuminate and carinate, scaberulous with minute short papillæ, especially along the keels: corolla deep bluish, 1½ to 3 cm. long, cleft to about ⅓ of its length, 4-lobed, the lobes very veiny, slightly spreading, broad and

[1] The sole survivor of the genus *Ginkgo*, the Ginkgo tree (*G. biloba*), also known as the "Maidenhair tree" on account of the resemblance of its leaves to the Maidenhair fern (*Adiantum*), is the sacred tree of the temple gardens of Japan and China, whence it has been introduced by horticulturists into Europe and America.

[2] These descriptions of new species, formerly supposed to represent *Gentiana serrata*, Gunn., have been extracted from a very valuable paper by Mr. Holm on "Some Canadian species of *Gentiana*: section *Crossopetalæ*, Frœl.", with four plates, received too late for publication in this number of THE OTTAWA NATURALIST. The complete paper will appear in an early number of this journal.

Mr. Holm also proposes *G. serrata*, var. *grandis*, and var. *holopetala*, Gray, as species, viz.: *G. grandis* (Gray Synopt. Flora, p. 117), Holm, and *G. holopetala* (Gray ibid.), Holm.—EDITOR.

fringed along the sides, but merely denticulate across the summit; nectariferous glands 4 at the base of the corolla-lobes : stamens 4 with broadly winged filaments, these ciliate in the middle: anthers at first introrse : pistil fusiform, stipitate with short but distinct style: stigma roundish : mature capsule shorter than the corolla : seeds rough with numerous long papillæ.

Prairies, gravelly soil and margins of marshes. The Geological Survey specimens are from Lees Creek at Cardston, Alberta; Red Deer, Alberta; along the Bow River to Banff, Rocky Mountains, where it is very abundant; Waterton Lake, Lat. 49° 05′; and Fort Pitt, Saskatchewan.

GENTIANA PROCERA.—Annual, glabrous except the calyx: stem erect, angled, 25 to about 50 cm. high, branched above : lowest leaves spathulate or oblong-lanceolate, obtuse, the upper linear-lanceolate, acute: branches 1—3-flowered with 2 or 3 pair of leaves: calyx 1½ to 3 cm. long, unequally cleft to the middle or a little above, 4-lobed, the longer lobes linear-lanceolate, the shorter much broader with membranaceous margins, all acuminate and carinate, scabrous: corolla, deep blue, 2 to 5 cm. long, 4-lobed, the lobes very veiny, roundish with many long fringes along the sides and dentate across the summit: nectariferous glands as in *G. Macounii*: stamens 4, the filaments naked, otherwise as in the preceding species ; ovary shortly stipitate with short style and a roundish, somewhat lobed stigma : mature capsule much shorter than the corolla : seeds with long papillæ.

Represented in the Herbarium of the Geological Survey of Canada by specimens from near Sarnia, Ont. (*C. K. Dodge*); Lake Huron (*Dr. Richardson*); Stony Mtn., Man. (*John Macoun*); and in the Gray Herbarium of Harvard University from Goat Island Niagara Falls ; shore of Lake Superior, Charlevoix, Mich.; and Minnesota.

GENTIANA NESOPHILA.—Annual, glabrous: stem erect, angled, 6 to 9 cm. high, much branched from near the root : leaves glaucous, densely crowded and forming a rosette, roundish or obovate, tapering into the petioles, the cauline spathulate or lanceolate, obtuse : peduncles sometimes as many as 12, stout, 1-flowered with 2 or 3 pair of leaves : calyx glaucous and wholly glabrous, about 1½ cm. long, unequally cleft to near middle, 4-lobed, the longer lobes narrow and keeled, the shorter much broader with membranaceous margins, but not carinate : corolla pale bluish in dried specimens, 2 to 2½ cm. long, 4-lobed, the lobes roundish with a very few lateral teeth, but no fringes, erosely denticulate across the summit: nectariferous glands 4 : stamens 4, with winged filaments : ovary shortly stipitate, the style distinct, with a roundish stigma : mature capsule shorter than the corolla : seeds with short, obtuse papillæ.

Known only from near Salt Lake, Anticosti, Quebec, where it was collected by Prof. John Macoun on low, moist ground; in flower August, 1883.