

103421 to 103439—Continued.

103438. *TETRACENTRON SINENSE* Oliver. Magnoliaceae.

No. D-322. A tree up to 100 feet high, native to western and central China. The elliptic-ovate leaves, 3 to 5 inches long, are subordinate with closely serrulate margins, and the minute yellowish flowers are in racemes 4 to 8 inches long.

For previous introduction see 100097.

103439. *THERMOPSIS ALPINA YUNNANENSIS* Franch. Fabaceae.

No. D-280. A herbaceous perennial 6 to 12 inches high, with three broadly oblong hairy leaflets and bright-yellow flowers in terminal racemes. Native to Yunnan, southwestern China.

103440. *CARYOPHYLLUS MALACCENSIS* (L.) Stokes (*Eugenia malaccensis* L.). Myrtaceae. **Ohia.**

From Cuba. Seeds presented by Robert M. Grey, superintendent, Atkins Institution of the Arnold Arboretum, Soledad, Cienfuegos, through F. G. Walsingham. Received July 7, 1933.

A tree with large glossy handsome leaves and masses of flowers an inch or more across, filled with hundreds of beautiful deep-rose or pink stamens. The crimson pear-shaped fruits of characteristic flavor are much esteemed in the West Indies for preserves.

For previous introduction see 99534.

103441. *CINCHONA LEDGERIANA* Moens. Rubiaceae.

From India. Seeds purchased from R. B. & D. S. Pradham, The Chandra Nursery, Sikkim, Bengal. Received July 8, 1933.

A tree, native to the Andes, yielding a bark remarkably rich in quinine which crystallizes readily as quinine sulphate. The percentage of the other alkaloids present is relatively small. The bark of this species matures in the fifth or sixth year and does not increase its quinine content after that age.

For previous introduction see 100986.

103442 to 103444. *MALUS SYLVESTRIS* Mill. (*Pyrus malus* L.). Malaceae. **Apple.**

From the Union of Soviet Socialist Republics. Scions presented by the Institute for Northern Fruit and Berry Growing, Koslov, through V. P. Alekseev, chief in charge of Foreign Plant Introduction, Leningrad. Received June 2, 1933. Numbered in July 1933.

Received under the following varietal names:

103442. No. 137714. *Antonovka*.

103443. No. 137717. *Bel Monastirskaia*.

103444. No. 137709. *Reinette Kolhasney*.

103445 to 103475.

From southwestern China and Tibet. Seeds collected by Dr. Joseph F. Rock, agricultural explorer for the University of California Botanical Garden Expedition, and presented through Dr. T. H. Goodspeed, Department of Botany, University of California, Berkeley, Calif. Received July 6, 1933.

103445. *AJUGA* sp. Menthaceae. **Bugle.**

No. 24362. Collected south of Dzampe Sheren in the Sagi Valley at 14,500 feet altitude. Flowers pale lavender to white, found growing in scree.

103446. *AJUGA* sp. Menthaceae. **Bugle.**

No. 24499. From the trail to Leirong, southwestern Mulli Territory, Szechwan, on Mount Kanshu. White flowers found in alpine meadows at 14,000 feet altitude.

103445 to 103475—Continued.

103447. *ILEX* sp. Aquifoliaceae.

No. 24323. From Mutitrong, Mulli Territory, on the Mutikonka snow range, Szechwan, at 11,000 feet altitude. A plant between 3 and 4 feet high.

103448. *ASTRAGALUS* sp. Fabaceae. **Milkvetch.**

No. 24354. From the Sagi Valley, south of Dzampe Sheren, at 13,000 feet altitude. Purplish-blue flowers found in alpine meadows.

103449. *CASSIOPE* sp. Ericaceae.

No. 20934. A plant with white flowers found in alpine regions at 15,000 feet altitude.

103450 to 103452. *CLINTONIA* spp. Convolvulariaceae.

103450. *CLINTONIA* sp.

No. 21960. Blue flowers, collected in a canebroke between 11,000 and 12,000 feet altitude on Mount Kenichunpo.

103451. *CLINTONIA* sp.

No. 21962. Large single, deep-purple flowers found in alpine regions at 15,000 feet altitude on Mount Kenichunpo.

103452. *CLINTONIA* sp.

No. 24484. From the trail to Leirong, southwestern Mulli, Szechwan, on Mount Kanshu; found in moss in a fir forest.

103453 to 103455. *DIPLARCHE* spp. Ericaceae.

103453. *DIPLARCHE* sp.

No. 21930. A shrub several inches high with pink flowers; found on grassy slopes at 14,000 feet altitude.

103454 and 103455. *DIPLARCHE MULTIFLORA* Hook. and Thoms.

A low alpine shrub, native to the Himalayan region between 11,000 and 14,000 feet altitude. The crowded leathery linear-oblong leaves are less than one-fourth inch long, and the small tubular white or pink flowers are borne in dense clusters of 8 to 20 at the ends of the branches.

For previous introduction see 99861.

103454. No. 22243. From Solola, Tsarung Province, Tibet; a shrub 1 inch high with white flowers; found in alpine regions at 14,000 feet altitude.

103455. No. 23274. From Mount Fuchuan, west of the Mekong-Salwin Divide. A shrub 2 to 6 inches high with white flowers, found on cliffs and crags.

103456. *DISPORUM* sp. Convolvulariaceae. **Fairybells.**

No. 21947. From Mount Kenichunpo. A shrub up to 3 feet high with white flowers; found in spruce forest at 12,000 feet altitude.

103457. *HEDYSARUM* sp. Fabaceae.

No. 22249. From Solola, Tsarung Province, Tibet; an herb with yellow flowers, found at 10,000 feet altitude.

103458. *HEDYSARUM* sp. Fabaceae.

No. 23450. From Mount Moting, west of Atuntze, Yunnan; an herb with pale-yellow flowers, found in alpine scree at 13,000 feet altitude.

103459. *ILEX* sp. Aquifoliaceae. **Holly.**

No. 22299. From Solola, Tsarung Province, Tibet; a shrub 5 feet high with red flowers; found in fir forest at 12,500 feet altitude.