# UNITED STATES DEPARTMENT OF AGRICULT



INVENTORY No. 93



Washington, D. C.

Issued December, 1929

# PLANT MATERIAL INTRODUCED BY THE OFFICE OF FOREIGN PLANT INTRODUCTION, BUREAU OF PLANT INDUSTRY, OCTOBER 1 TO DECEMBER 31, 1927 (NOS. 75127 TO 75844)

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### INTRODUCTORY STATEMENT

In presenting an inventory of the material which has passed through the Office of Foreign Plant Introduction for the period included between October 1 and December 31, 1927, it is scarcely enough to report that the serial numbers include 718 introductions, a statement as dull in itself as the reading of any inventory is likely to be. But before commenting in any way upon the items which make up this list, the reader should be reminded of several things.

Refore all else this inventory must be considered as a record a historical

Before all else, this inventory must be considered as a record, a historical document. In it are listed the names of all species and varieties received, together with brief notes concerning the nature of the material, the source, and a description. It in no way indicates the disposition of the material, nor does it suggest its present whereabouts. The reader is urged to remember that this is not a statement of material on hand, to be consulted like a catalogue from a nursery. It should be consulted to discover how far about the globe the office reaches out to procure the plants which it brings in for use in this country. The mere list of contributing countries fires the imagination—Argentina, Australia, Brazil, Cameroon, Canal Zone, Ceylon, Chile, China, Chosen, Colombia, Egypt, England, Fiji Islands, France, French Guinea, Gambia, Germany, Gold Coast, Hawaii, India, Italy, Japan, Java, Kenya Colony, Manchuria, Mexico, New South Wales, New Zealand, Nyasaland Protectorate, Palestine, Persia, Philippines, Rhodesia, Russia, Scotland, Sierra Leone, Spain, Tanganyika Territory, and Uganda. Practically every corner of the globe has contributed to the stream of introductions which are being brought in for our national development. Here are recorded findings of several collectors and two expeditions, as well as the varied contributions of the many collaborators who further the work of the office.

Conspicuous among these are the chestnuts that have been sent in by R. Kent Beattie, of the Office of Forest Pathology, who has been studying chestnuts in the Orient with a view to collecting trees that will be valuable in replacing our American chestnuts, which are disappearing as a result of the chestnut blight. Other collections from Mr. Beattie which are specifically related to projects within the department here are the azaleas and lilies which appear conspicuously among the ornamentals he has sent.

More than 100 numbers are used to record the plants sent in from the expedition in Africa under Messrs. Kephart and Piemeisel, whose particular interest centered

in forage crops, both the grasses and legumes.

Tropical plants of particular value for southeastern Florida were sent in from the Allison V. Armour expedition and are recorded under Nos. 75270 to 75285.

An interesting collection of native types and varieties of peaches and apricots (75228 to 75238) were sent in from Persia, and a smaller group of mangos (75264 to 75269) from Honolulu may add valuable new fruits for several localized areas

Interest in rubber-producing plants is noted—three importations of Cryptostegia (75218, 75219, 75752), latex-producing shrubby vines which seem to

promise well in southern Florida.

The increasing interest in bamboos is reflected in the collection (Nos. 75146 to 75170) sent in by Dr. A. W. Hill, Director of the Royal Botanic Gardens, Kew, England, for study in regard to hardiness and suitability for use in ornamental and commercial plantings in the warmer parts of the country.

Of more isolated interest, one finds a gladiolus (No. 75657) sent in from South

America, where it was collected apparently in the wild, a new location for this

genus.

Large collections from the Melbourne Botanic Garden, Victoria (Nos. 75534 to 75574), and the Sydney Botanic Gardens, New South Wales (Nos. 75576 to 75612), are rich in both Acacia and Eucalyptus, genera of great value and importance in California and the Southwest. Many of these are species or

horticultural forms not previously introduced into this country.

Even from so brief an outline as this, it is possible to see how diverse are the materials that are brought in by this office. It is impossible to suggest at this time the specific reasons for which they were secured or to indicate the disposition that has been made in each case, but the reader is urged once more to recall that the activities recorded here are all related to problems under consideration by the department and do not represent a check list of materials for distribution.

The botanical determinations of these introductions have been made and the nomenclature determined by H. C. Skeels, who has had general supervision of

this inventory.

Knowles A. Ryerson, Principal Horticulturist, in Charge.

OFFICE OF FOREIGN PLANT INTRODUCTION, Washington, D. C., June 5, 1929.

#### INVENTORY 1

#### 75127 to 75136.

From Derbent, Daghestan, Caucasus, Russia. Seeds presented by W. Berg, Director of the Daghestan Agricultural Plant-Breeding Station. Received November 17, 1927.

75127 to 75129. AVENA SATIVA L. Poaceae.

75127. From Andi District, Gadsberi. A variety growing at an altitude of 150

75128. From Darghin District, Ulal.

75129. From Ossetia, Digor District, Dushta.

75130. HORDEUM VULGARE NIGRUM (Willd.) Beaven. Poaceae. Six-rowed barley.

A mass selection.

75127 to 75136—Continued.

75131. HORDEUM VULGARE PALLIDUM Seringe. Poaceae. Six-rowed barley.

A mass selection.

75132 to 75134. TRITICUM AESTIVUM L. (T. vulgare Vill.). Poaceae. Common wheat.

75132 Kara kilchik.

75133. Giur ahimi.

75134. Baku cugda.

75135 and 75136. TRITICUM DURUM Desf. Poaceae. Durum wheat.

75135. Ak cugda.

75136. Narghia ava.

It should be understood that the names of horticultural varieties of fruits, vegetables, cereals, and other plants used in this inventory are those under which the material was received when introduced by the Office of Foreign Plant Introduction, and, further, that the printing of such names here does not constitute their official publication and adoption in this country. As the different varieties are studied, their entrance into the American trade forecast, and the use of varietal names for them in American literature becomes necessary, the foreign varietal designations appearing in this inventory will be subject to change with a view to bringing the forms of the names into harmony with recognized horticultural nomenclature. It is a well-known fact that botanical descriptions, both technical and economic, seldom mention the seeds at all and rarely describe them in such a way as to make possible identification from the seeds alone. Many of the unusual plants listed in these inventories are appearing in this country for the first time, and there are no seed samples or herbarium specimens with ripe seeds with which the new arrivals may be compared. The only identification possible is to see that the sample received resembles seeds of other species of the same genus or of related genera. The responsibility for the identifications therefore must necessarily often rest with the person sending the material. If there is any question regarding the correctness of the identification of any plant received from this office, herbarium specimens of leaves and flowers should be sent in so that definite identification can be made.

75137. MENTHA ARVENSIS PIPERA-SCENS Malinv. Menthaceae.

Japanese mint.

From Japan. Plants obtained through the Federal Horticultural Board. Received October 17, 1927.

A cultivated variety with larger leaves and yielding more oil than the ordinary mint.

#### 75138. Juglans sieboldiana Maxim. Juglandaceae. Japanese walnut.

From Sapporo, Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received November 12, 1927.

No. 16. Collected at the botanic garden, Hokkaido Imperial University. A broad-headed Japanese tree up to 50 feet high which bears its ovoid nuts in long racemes often containing 20 nuts.

## 75139. Bambusa arundinacea Retz. Poaceae. Bamboo.

From Dehra Dun, India. Seeds presented by R. N. Parker, forest botanist of the Forest Research Institute. Received November 18, 1927.

A tall bamboo, native to India, rising to a height of 60 feet. The stems are produced in dense clumps, green and shining when young, but becoming golden. The lower branches are spiny.

# 75140 to 75143. Fragaria spp. Rosaceae. Strawberry.

From Berlin, Germany. Plants purchased from L. Späth. Received December 28, 1925. Numbered November, 1927.

75140. FRAGARIA Sp.

Kaisers sämling. Fruits large, bright red; flesh sweet and melting; a heavy yielder.

75141. FRAGARIA Sp.

Lucida perfecta. Late-ripening variety; fruits large; flesh white, sweet, with an aromatic flavor; a heavy yielder.

75142. FRAGARIA SD.

Steger. Early ripening variety; fruits largebright red, juicy, of excellent flavor; a heavy yielder.

75143. FRAGARIA Sp.

Späte von Leopoldshall. Fruits large, bright red; flesh dark red.

#### 75144. Fragaria sp. Rosaceae.

Strawberry.

From Bedford, England. Plants purchased from Laxton Bros. Received March 25, 1926. Numbered November, 1927.

Grove End scarlet. An old and well-known, midseason variety with small round fruits which remain whole when preserved.

#### 75145. Rubus sp. Rosaceae.

Raspberry.

From Shitoukhetsy, Manchuria. Plants collected by P. H. Dorsett, agricultural explorer, Bureau of Plant Industry. Received November 17, 1926. Numbered November, 1927.

No. 7267. October 8, 1926. A wild Manchurian raspberry cultivated for its abundance of red berries, which are of good size and quality.

#### 75146 to 75170.

From Kew, England. Plants presented by Dr. A. W. Hill, Director of the Royal Botanic Gardens. Received May 11, 1925. Numbered December, 1927.

#### 75146 to 75170—Continued.

75146 to 75152. ARUNDINARIA spp. Poaceae.

75146. ARUNDINARIA FASTUOSA (Marl.) Makino.

A slender hollow-stemmed Japanese bamboo about 20 feet high. The dark-green stems have purple markings.

For previous introduction see No. 73957.

75147. ARUNDINARIA HINDSII GRAMINEA Mitf.

A very handsome and hardy Japanese bamboo with slender stems 10 to 150 eet high and very narrow leaves 6 to 10 inches long.

75148. ARUNDINARIA MACROSPERMA Michx. Cane reed.

A native American bamboo growing along streams in the southeastern part of the United States. The stems are 20 to 30 feet high with numerous short divergent branches and lanceolate leaves 10 to 15 inches long.

75149. ARUNDINARIA NAGASHIMA (Marl.) Aschers. and Graebn.

A small Japanese bamboo 3 to 5 feet high, whith erect stems, upright branches, and linear leaves 6 to 9 inches long. The nodes are covered with white wax.

#### 75150. ARUNDINARIA NITIDA Mitf.

A hollow Chinese bamboo up to 20 feet high, with the stems leafless the first year and branching and arching the second year. The pubescent sheaths are purplish, and the small lanceolate leaves are bright green above and glaucescent beneath. This is one of the hardiest of the Arundinarias and thrives in moist shady places.

75151. ARUNDINARIA SIMONII (Carr.) A. and C. Riviere.

A hollow bamboo, native to China and Japan, with stems 25 feet high and an inch thick, young sheaths purplish, and leaves 6 to 12 inches long which are bright green above, often striped with white, and glaucescent beneath on one side of the midrib and nearly green on the other side.

75152. ARUNDINARIA SIMONII VARIEGATA Hook. f.

A form of Arundinaria simonii with smaller and narrower leaves which are irregularly striped with white.

75153 to 75160. PHYLLOSTACHYS spp. Bamboo.

#### 75153. PHYLLOSTACHYS AUREA Carr. Golden Japanese bamboo.

A yellow-stemmed bamboo, native to China and Japan, with erect stems 15 to 18 feet high and an inch thick, and with dark-green leaves 4 to 6 inches long and nearly an inch wide.

75154. PHYLLOSTACHYS BAMBUSOIDES Sieb. and Zucc.

A Chinese bamboo with stems over 50 feet high and 4 to 6 inches in diameter, bright green with a bloom below the nodes, and the sheaths mottled with purple.

75155. PHYLLOSTACHYS BAMBUSOIDES CASTILLONI (Marl.) H. de Lehaie.

A smaller and more slender Japanese form of *Phyllostachys bambusoides* with yellow stems striped with green and the shorter and narrower leaves often striped with pale yellow.

#### 75146 to 75170—Continued.

75156. PHYLLOSTACHYS FLEXUOSA A. and C. Riviere.

A Chinese bamboo 10 to 20 feet high, with stems bright green at first, but becoming almost black, long flexuous branches, and leaves dark green above and glaucous beneath.

75157. PHYLLOSTACHYS KUMASASA (Zoll.) Munro.

A small Japanese bamboo with flattened zigzag green stems 4 to 8 feet high, two to four branchlets at each node, and ovatelanceolate dark-green leaves.

75158. PHYLLOSTACHYS PUBERULA (Miquel) Munro.

A Chinese bamboo with bright-green hollow stems 15 to 20 feet high, arching and very leafy; the leaves are dark green above and glaucous beneath.

75159. PHYLLOSTACHYS PUBERULA NIGRA (Lodd.) H. de LeHaie.

A form of *Phyllostachys puberula* with the stems soon turning black, the nodes edged below with white, and the branchlets spotted.

75160. PHYLLOSTACHYS VIRIDI-GLAUCESCENS A, and C. Riviere.

A Chinese bamboo with yellowish green hollow stems, 20 to 24 feet high, purplish at the nodes and the sheaths striped with purple.

75161 to 75170. SASA spp. Poaceae. Bamboo.

75161. SASA AURICOMA (Mitf.) E. G. Camus.

A dwarf Japanese bamboo 3 to 5 feet high, with slender dark purplish green tufted stems and green and golden yellow striped leaves.

75108. SASA CHRYSANTHA (Mitt.) E. G.

A spreading Japanese bamboo with hollow stems 5 to 7 feet high and glabrous brightgreen leaves often variegated with yellow. 75183. SASA DISTICHA (Mitf.) E. G. Camus.

A dwarf Japanese bamboo with zigzag hollow green stems less than 3 feet high, and bright-green leaves arranged in two rows. 75164. SASA HUMILIS (Mitf.) E. G. Camus.

A dwarf Japanese bamboo with very slender green stems 2 to 4 feet high, having two or three long branches at each node, purplish sheaths, and pale-green leaves.

75165. SASA JAPONICA (Sieb. and Zucc.)

A Japanese bamboo with stout stems 10 to 15 feet high, having pale-brown sheaths and leaves 4 to 10 inches long, lustrous dark green above and glaucescent beneath except a green strip on one margin.

75166. SASA PUMILA (Mitf.) E. G. Camus.

A Japanese dwarf bamboo 1 to 2 feet high, with slender hollow stems, purple-tinged sheaths, and bright-green slightly hairy leaves.

75167. SASA TESSELLATA (Munro.) Mak. and Shib.

A dwarf Japanese bamboo 3 to 5 feet high, with arching stems, very striking on account of the large leaves forming broad rounded masses.

75168. Sasa Variegata (Siebold) E. G. Camus.

A Japanese dwarf bamboo 2 to 3 feet high, spreading rapidly and forming large tufts of very slender somewhat zigzag stems with green leaves striped with white.

75146 to 75170—Continued.

75169 and 75170. SASA VEITCHII (Carr.) Rehder.

A rapidly spreading dwarf Japanese bamboo usually 2 feet high, but rarely 5 feet, with green stems and leaves dark green above, glaucous beneath, and turning yellow on the margin in autumn.

75169. No. 1.

75170. No. 2.

75171. BETA VULGARIS L. Chenopodiaceae. Beet.

From Paris, France. Seeds purchased from Vilmorin-Andrieux & Co. Received November 29, 1927.

Française riche. This variety gives a very large yield in deep, rather light soil.

75172. Passiflora maliformis L. Passifloraceae.

From Calarca, Colombia. Seeds presented by Eduardo Hernandez, Direccion de Agricultura. Received November 25, 1927.

A locally grown variety.

For previous introduction see No. 55028.

75173 and 75174. ZEA MAYS L. Poaceae. Corn.

From Angol, Chile Seeds presented by D. S. Bullock, of the Instituto Agricola Bunster. Received November 21, 1927.

Maiz Indiana. Collected in the Andes at Palugin, near Pucon.

75173, No. 1. 75174, No. 2.

75175 to 75181. Cajanus indicus Spreng. Fabaceae. Pigeon pea.

From Tanganyika Territory, Africa. Seeds presented by T. H. Marshall, Department of Agriculture, Dar es Salaam. Received November 15, 1927.

75175. Bonombo. A variety with red flowers and large soft white to pinkish seeds.

75176. Bonongwa. A variety with white flowers and small hard white to pinkish seeds.

75177. Kipera. A yellow-flowered variety with small hard pinkish to greenish seeds.

75178. Kiswaswa. A red-flowered variety with soft medium-sized purple-spotted seeds.

75179. Mkulyungu. A black-flowered variety with medium-sized hard purple seeds.

75180. Mrugulu. A variety with mottled flowers and medium-sized hard fawn-colored seeds.

75181. Mtoteke. A black-flowered variety with medium-sized hard brownish seeds.

75182. DIOSPYROS CONZATTII Standley. Diospyraceae. Persimmon.

From Oaxaca de Juarez, Oaxaca, Mexico. Seeds presented by Dr. C. Conzatti. Received November 14, 1927.

A subtropical tree of particular interest on account of the exquisite flavor of its edible, greenskinned fruits, 4 centimeters in diameter and 2 centimeters long. Propagation of this magnificant tree is relatively simple because of its vigor and the altitude at which it thrives, 1,000 meters above sea level. Native to south-central Mexico.

For previous introduction see No. 53176.

75183 to 75199. PRUNUS CERASUS MARASCA (Host.) C. Schneid. Amygdalaceae. Maraschino cherry.

From Milan, Italy. Plants purchased from Fratelli Ingegnoli. Received December 4, 1927.

Local varieties.

75183. Bicentenaria.

75184. Inglese precoce.

75185. Nera grossa di Piemonte.

75186. Regina ortensia.

75187. Rossa grossa di Piemonte.

75188. Bel'a di Barbanti.

75189. Bella di Toscana.

75190. Bianco grosso.

75191. Bianco rosato di Piemonte.

75192. Garibaldi.

75193. Giallo di Doenissen.

75194 Morregu.

75195. Napotitana.

75196. Nero di Tarcento.

75197. Nero di Winkler.

75198. Olivo.

75199. Ciliegio duracino gigante.

75200. EHRHARTA CALYCINA J. E. Smith. Poaceae.

### Perennial African veldt grass.

From Burringbar, New South Wales, Australia. Seeds presented by B. Harrison. Received October 8, 1927.

A grass 4 feet high, which is popular as a forage grass in Western Australia, where it was introduced accidentally by camel owners in fodder imported from South Africa. It is said to be very nutritious.

# 75201. LUCUMA NERVOSA DC. Sapotaceae. Canistel.

From Homestead, Fla. Seeds presented by Dr. J. Petersen. Received October 8, 1927.

A small tree up to 25 feet high, with spreading branches and oblong leaves 4 to 8 inches long. The ovoid orange-yellow edible fruits are 2 to 4 inches long with soft mealy bright orange flesh of rich sweet flavor. The tree is native to northern South America.

# 75202 and 75203. Nothoragus spp. Fagaceae.

From Wellington, New Zealand. Seeds presented by L. Ellis, Director of the Department of Forestry. Received October 8, 1927.

75202. Nothofagus fusca (Hook. f.) Oerst.

Dusky beech.

A large New Zealand tree often reaching a height of 100 feet and having a trunk diameter of 12 feet. It is sparsely distributed throughout the islands in damp situations.

For previous introduction see No. 46643.

75203. NOTHOFAGUS SOLANDRI (Hook. f.) Oerst. Solander's beech.

A forest tree up to 100 feet high, with small leaves less than an inch long and fruits resembling small chestnuts. This is the most abundant of the New Zealand beeches, forming immense forests on the drier mountain slopes.

75204. LYCOPERSICON ESCULENTUM Mill. Solanaceae. Tomato.

From Fundo Ursula, near Nancagua, Chile. Seeds presented by H. L. Westover, Bureau of Plant Industry. Received October 11, 1927.

Seeds collected from a waste place, May 7, 1924. The fruits are small, but very solid, and seem to contain less acid than the tomatoes in the United States.

#### 75205 and 75206.

From Gold Coast, Africa. Seeds presented by L. A. King-Church, conservator of forests, Victoriaborg, Akkra. Received October 12, 1927.

75205. MONODORA MYRISTICA (Gaertn.) Dunal. Annonaceae. Calabash nutmeg.

The Calabash nutmeg is described in Curtis's Botanical Magazine (plate 3059) as a large, spreading, tropical African tree with shining, pale-green leaves and fragrant flowers. The latter, borne singly in the leaf axils, are about 6 inches across, with six petals; three of these are spreading and yellow, the other three are erect and creamy white, and all are dotted with red. The fruit, 4 to 6 inches in diameter, contains a number of cylindric seeds about an inch long; these have a flavor closely resembling that of the common nutmeg.

For previous introduction see No. 61499.

75206. PARKIA Sp. Mimosaceae.

A tall unarmed tree with compound leaves and small, dense panicles of flowers which are followed by large, strap-shaped pods. Native to tropical Africa.

75207 to 75213. CAJANUS INDICUS Spreng. Fabaceae. Pigeon pea.

From Pusa, Bihar and Orissa, India. Seeds collected by Dr. F. G. Krauss, of the University of Hawaii. Received October 12, 1927.

Locally grown varieties collected in August, 1927.

75207. Pusa No. 1.

75208. Pusa No. 2a.

75209. Pusa No. zb.

75210. Pusa No. 4a.

75211. Pusa No. 5a.

75212. Pusa No. 5b. 75213. Amber No. 10.

75214 to 75216. ZEA MAYS L. Poaceae. Corn.

From India. Seeds collected by Dr. F. G. Krauss, of the University of Hawaii. Received October 12, 1927.

Locally grown varieties, collected in August, 1927, at the Agricultural Experiment Station, Pusa, Bihar and Orissa.

75214. No. 1. An early-maturing variety.

75215. No. 2. An intermediate-maturing variety.

75216. No. 3. A late variety.

75217. Cucumis melo L. Cucurbitaceae. **Melon.** 

From Altoona, Pa. Seeds presented by William Hahman. Received October 8, 1927.

A melon originally from China, which is reported to produce as many as 60 fruits to a hill.

75218 and 75219. CRYPTOSTEGIA spp. Asclepiadaceae.

From Paris, France. Seeds purchased from Vilmorin-Andrieux & Co. Received October 10, 1927.

75218. CRYPTOSTEGIA GRANDIFLORA R. Br. Palay rubbervine.

A climbing shrubby vine of unknown nativity, but now cultivated in many places in the Tropics of both hemispheres as an ornamental, and occasionally growing as an escape from cultivation. The leaves are short and leathery, with dull surfaces and purple midribs, and the whitish or pink flowers are 2 to 3 inches in diameter. This vine is now being tested as a source of rubber. In India the plant is called palay.

For previous introduction see No. 61795.

75219. CRYPTOSTEGIA GRANDIFLORA R. Br.

Received as *Cryptostegia madagascariensis*, but plants grown at Chapman Field, near Miami, Fla., appear to be *C. grandiflora*.

75220. Zea mays L. Poaceae. Corn.

From Darjiling, India. Seeds collected by Dr. F. G. Krauss, of the University of Hawaii. Received October 12, 1927.

Collected August 10, 1927. A variety growing at an altitude of 7,000 feet.

75221. (Undetermined.)

From Kabiti, near Nairobi, Kenya Colony, East Africa. Seeds collected by L. W. Kephart and R. L. Piemeisel, agricultural explorers, Bureau of Plant Industry. Received October 15, 1927.

No. 83. July 8, 1927. A bulbous liliaceous plant with flowers about 1 inch in diameter produced on flower stalks 6 feet high. The leaves are thin, 2 to 2½ feet long, and 1½ inches broad at the base, tapering gradually to a point. The pods are one-fourth to one-half inch long, and the bulbs are 4 inches in diameter, with several small bulbs attached to the side.

75222 to 75225. Phoenicaceae. Phoenicaceae. Phoenicaceae.

From Paris, France. Seeds purchased from Vilmorin-Andrieux & Co. Received October 10, 1927.

75222. PHOENIX RUPICOLA T. Anders.

A slender date palm up to 20 feet high, with leaves 10 feet long and oblong shining yellow fruits. Native to India.

75223 and 75224. PHOENIX RECLINATA Jacq. Senegal date palm.

A date palm 25 or more feet tall, which has bright-green 2-ranked leaves with rigid leaflets. Native to tropical Africa.

75223. [No data.]

75224. Variety leonensis.

75225. PHOENIX ROEBELENII O'Brien.
Roebelin palm.

A dwarf palm, resembling the date palm, but only about 2 feet high. Native to Cochin China.

**75226.** CITRUS SINENSIS (L.) Osbeck. Rutaceae. **Orange.** 

From Palestine. Bud wood collected by Knowles A. Ryerson, of the Joint Palestine Survey Commission. Received October 5, 1927. The Jaffa or Shamouti orange from Jaffa, Palestine, is a large oval fruit of bright orange color, maturing from October to April. The fruit is practically seedless, the skin usually thick, and the flesh of excellent quality. This variety is the basis of the rapidly developing Palestine orange industry. Ninety-five per cent of the fruit is marketed in England.

75227. JATROPHA SPATHULATA Muell. Arg. Euphorbiaceae. Tocote prieto.

From San Antonio, Tex. Plants collected by Dr. J. N. Rose, of the United States National Museum, and Paul Russell, of the Bureau of Plant Industry. Received October 24, 1927.

No. 24139. October 19, 1927. A stoloniferous shrub up to 15 feet high, with fleshy branches, sessile spathulate leaves, and fascicles of pale-rose flowers. Native to Texas, Mexico, and Central America. For testing as a possible source of rubber.

75228 to 75238.

From Teheran, Persia. Seeds presented by E. S. Haskell, Director General of Agriculture and Public Domains. Received October 17, 1927.

Local varieties collected at Tajrish, near Teheran.

75228 and 75229. AMYGDALUS PERSICA L. (Prunus persica Stokes). Amygdalaceae. Peach.

75228. No. 1. Small mealy fruits.

75229. No. 2. Small sweet fruits.

75230. PRUNUS ARMENIACA L. Amygdalaceae. Apricot.

No. 3. Aromatic fruits.

75231 to 75238. PRUNUS spp. Amygdalaceae.

75231. PRUNUS Sp.

No. 4. Large round black fruits.

75232. PRUNUS Sp.

No. 5. Large round white fruits.

75233. PRUNUS Sp.

No. 6. Large round red fruits.

75234. PRUNUS Sp.

No. 7. Very small round yellowish fruits.

75235. PRUNUS Sp.

No. 8. Small oval yellowish fruits.

75236. PRUNUS Sp.

No. 9. Small oval reddish fruits.

75237. PRUNUS Sp.

No. 10. Small oval red fruits.

75238. PRUNUS Sp.

No. 11. Large round yellowish white fruits.

75239. (Undetermined.) Poaceae.

From Concepcion, Chile. Seeds presented by S. P. Price, Concepcion, through H. L. Westover, Bureau of Plant Industry. Received October 24, 1927.

A mixture of local grass varieties.

75240. TRIFOLIUM FRAGIFERUM L. Strawberry clover.

From Melbourne, Australia. Seeds purchased from F. H. Brunning. Received October 21, 1927.

The strawberry clover has in some unknown way become introduced into northeastern Oregon, where, on the seepage irrigated lands that are too alkali for alfalfa, it seems to thrive excellently. It seems probable that the seed was originally introduced with alfalfa, but at the present time this variety has escaped into the pastures, wherever the seepage from the irrigation ditches provides sufficient registure. sufficient moisture.

#### 75241. CALOPHYLLUM KUNSTLERI King. Clusiaceae.

From Summit, Canal Zone. Seeds presented by J. E. Higgins, Agronomist in Charge, Plant Introduction Gardens. Received October 22, 1927.

A tree up to 60 feet high, native to the Malay Peninsula. The 4-angled branchlets are red pubescent, and the elliptical leaves are prominently nerved. The small axillary clusters of white flowers are followed by drupes about one-third of an inch in diameter.

#### **75242 and 75243.** Cucumis melo L. Cucurbitaceae. Melon.

From Ispahan, Persia. Seeds presented by A Mohammed Hossain Guiahi. Received October 25, 1927. Received

Locally grown varieties.

75242. No. 2. Kharboozeh. An oval-shaped variety.

75243. No. 4. Semsoori. A round variety.

#### **75244.** Lobelia FULGENS Willd. Campanulaceae. Mexican lobelia.

From Zacuapam, Huatusco, Vera Cruz, Mexico. Seeds presented by Dr. C. A. Purpus. Received October 25, 1927.

A herbaceous perennial plant about 4 feet high with bright-red flowers.

For previous introduction see No. 45353.

#### 75245. Galanthus fosteri Baker. Amaryllidaceae. Snowdrop.

From London, England. Bulbs purchased from Barr & Sons. Received October 28, 1927.

A bulbous, spring-flowering plant native to Asia Minor. The leaves are nearly an inch wide, and the small flowers are white with the lower half of the segments green.

75246. Saguerus pinnatus Wurmb (Arenga saccharifera Labill.). Phoenicaceae. Sugar palm.

om Manila, Philippine Islands. Seeds presented by S. Youngberg, Director of the Bureau of Agriculture. Received December 20, 1927. From Manila, Philippine Islands.

Agriculture. Received December 20, 1927.

Kaong. A handsome palm 30 to 40 feet high, with immense leaves and enormous bunches of fruit. A rich-flavored palm sugar is made from the sap which flows from the bruised fruit stalk. It also furnishes a valuable black fibrous substance, ejoo fiber, superior in quality, cheapness, and durability to that obtained from the husk of the occonut, and renowned for its power to resist moisture. It is used by the natives of the Indian Islands for every purpose of cordage. Underneath this material is found a substance of a soft gossamerlike texture which is imported into China, where it is applied as oakum in calking the seams of ships and more generally as tinder for kindling fire.

For previous introduction see No. 67178.

75247. LILIUM sp. Liliaceae.

From Tokyo, Japan. Bulbs collected by R. K. Beattie, Bureau of Plant Industry. Received October 31, 1927.

No. 1. (Yuri.) Obtained in the market, September 30, 1927. A local variety with edible bulbs.

75248. Dolichos Lablab L. Faba-Hyacinth bean.

From Cairo, Egypt. Seeds presented by William Carlton McQuiston, of the American University. Received October 29, 1927.

A locally grown variety.

#### 75249. ALEURITES Hemsl. FORDII Euphorbiaceae. Tung-oil tree.

From Pineville, La. Seeds presented by Placide Rodriguez, Superintendent of the Alexandria National Cemetery. Received October 17, 1927.

Seeds from trees growing in the Alexandria National Cemetery.

#### 75250. CARICA PAPAYA L. Papaya-Papaya.

From Brownsville, Tex. Seeds collected by Dr. J. N. Rose, of the United States National Museum, and Paul Russell, of the Bureau of Plant Industry. Received November 12, 1927.

October 30, 1927. A local variety of excellent quality with an unusually hard shell.

#### 75251 to 75253. MACADAMIA TERNI-FOLIA F. Muell. Proteaceae.

Macadamia.

From Sydney, New South Wales, Australia. Seeds purchased from Anderson & Co. Received October 18, 1927.

An evergreen tree up to 50 feet in height, which is cultivated for its edible nuts.

For previous introduction see No. 74219.

75251. The true thin-shelled variety.

75252. Medium thick-shelled variety with smooth leaves.

75253. Thick-shelled variety of the ordinary type.

#### 75254 and 75255. LILIUM spp. Lilia-Lily. ceae.

From Chosen. Obtained through C. H. Stephan, American vice consul in charge, Seoul. Received November 11, 1927.

Seeds and bulbs of a wild pink lily from the Chosen Government-General's Model Farming Station, Suigen, near Seoul. According to that station, the wild lily in Suigen is chiefly of the species of Lilium concolor buschianum, and the Japanese name is Aka hime yuri.

75254. Bulbs. 75255. Seeds.

#### 75256. Cynometra Τ. CAULIFLORA Caesalpiniaceae.

From Buitenzorg, Java. Seeds presented by Dr. W. M. Doctors van Leeuwen, director of the botanic gardens. Received February 11, 1927. Numbered October, 1927.

A curious tree producing an abundance of greenish yellow fruits which are the shape of triangular apple tarts. They have an acid flavor with little character, but when cooked are said to make excellent pies. These fruits are produced from knotlike excrescences on the trunk, often near the ground.

For previous introduction see No. 67692.

#### 75257 to 75262.

From Texas and Mexico. Seeds collected by Dr. J. N. Rose, of the United States National Mu-seum, and Paul Russell, of the Bureau of Plant Industry. Received November, 1927.

75257. CHIOCOCCA ALBA (L.) Hitchc. Rubiaceae.

No. 24289. Brownsville, Tex., October 29, 1927. A much-branched climbing shrub with leathery shining, oval leaves about 2 inches long, small, white flowers, and small globular, white berries. Native to Mexico.

#### 75257 to 75262—Continued.

75258. INODES TEXANA O. F. Cook. Phoenica-Palm.

ceae. Pain.

No. 24268. Brownsville, Tex., October 28, 1927. A tall erect handsome fan-leaved pain, up to 50 feet in height, native to the banks of the lower Rio Grande below Brownsville, Tex., and Matamoros, Mexico. The trunks of the older trees are smooth, while the persistent leafstalks form a network on the trunks of the younger ones. The leaves are light green, about 5 feet wide, and are borne in a large terminal cluster. While this paim is grown as an ornamental in this vicinity, it is not cultivated elsewhere. The edible fruits are round, fleshy, black and about five-eighths of an inch in diameter. They are sold in the Matamoros market under the name of micharo. under the name of micharo.

For previous introduction see No. 42280.

75259. IPOMOEA FISTULOSA Mart. Convolvu-Morning-glory.

No. 24228. Brownsville, Tex., October 26, 1927. A shrubby subtropical morning-glory up to 15 feet high, with rather thick entire leaves about 5 inches long and handsome purplish flowers about 3 inches long. Native to Brazil.

For previous introduction see No. 46966.

75260. Karwinskia Humboldtiana and Schult.) Zucc. Rhamnaceae.

No. 24201. Near Brownsville, Tex., October 24, 1927. A small, attractive tree 22 feet high, 24, 1927. A small, attractive tree 22 feet mig-with oblong-oval opposite leaves up to 3 inches long and small round black berries. It is found in dry situations between southern Texas and Central America.

75261. PITHECOLOBIUM BREVIFOLIUM Benth. Mimosaceae.

No. 24217. October 25, 1927. Near Matamoros, Mexico. An ornamental evergreen shrub or small tree about 18 feet high, found in semiarid situations. It has short spines, pinnate leaves, and pale cream-colored flowers in headlike spikes. The Mexican name is tanasa.

75262. SAPIUM SEBIFERUM Roxb. (L.) Euphorbiaceae. Chinese tallowtree.

No. 24198. Brownsville, Tex., October 28, 1927. An attractive tree, native to China, which is long-lived, and at maturity has a height of 40 to 50 feet and a diameter of 5 to 6 feet. The of 40 to 50 feet and a diameter of 5 to 6 feet. The 3-celled, flattened-ovoid fruits are about three-fifths of an inch in diameter. When ripe they fifths of an inch in diameter. When ripe they are blackish brown and woody in appearance; in China these are either gathered by hand or knocked down by poles. After being collected, the fruits are spread in the sun, where they open, and each liberates three elliptical seeds covered with a white substance which is a fat or covered with a white substance which is a fat or tallow. After this substance has been removed by steaming and rubbing through a bamboo sieve, the fat is collected and melted, molded into cakes, and sold as the Pi yu of commerce. After the fat is removed the seeds are crushed, and the oil expressed from them is called Ting yu. In China the oil and tallow are used in the manufacture of candles, and these products are also exported in quantity to Europe, where they are used in the manufacture of soap. The tree is occasionally grown as a shade tree in the Gulf and South Atlantic States.

For previous introduction see No. 51897.

#### **75263.** GARCINIA sp. Clusiaceae.

From near Lungnam, Kiangsi Province, China. Seeds collected by F. A. McClure, agricultural explorer, Bureau of Plant Industry. Received February 24, 1927. Numbered in October, 1927.

No. 973. Chuk tsz, shaan chuk. December 19, 1926. This species, said to be wild, will probably be of interest as a cold-resistant stock on which to graft the commercial mangosteen.

75264 to 75269. Mangifera indica L. Anacardiaceae.

From Honolulu, Hawaii. Plants presented by W. T. Pope, horticulturist of the Hawaii Agricultural Experiment Station. Received November 11, 1927.

Locally grown varieties.

75264. No. 2946. Pirie.

75265. No. 3715. Cowasiee patel × pirie.

75266. No. 4800. Kalihi.

75267. No. 4802. Victoria.

75268. No. 5298. Ludwig.

75269. No. 5299. Ono.

#### 75270 to 75285.

From West Africa. Seeds and plants collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received March and April, 1927. Numbered in October, 1927.

75270. BROWNEA COCCINEA Jacq. Caesalpinia-

No. 1170. Victoria Botanic Garden, Cameroon, February 10, 1927. An ornamental tropical tree with pale-brown leaves and large heads of scarlet flowers.

75271. CYRTOSPERMA SENEGALENSE (Schott) Engler. Araceae.

No. 1156. Collected near Duala, Cameroon, February 6, 1927. A curious aroid which sends up its spathe on a spiny stem 10 feet high. The spathe itself is 16 inches long. This plant requires sandy wet soil, tropical conditions and moist atmosphere.

75272. DIOSCOREA Sp. Dioscoreaceae.

No. 1143. Growing in the jungle at Jala, Sierra Leone, January 21, 1927. A wild species which may be valuable as an edible yam.

75273. DIOSCOREA SD. Dioscoreaceae.

No. 1149. A wild yam from Abuko, Gambia, January 10, 1927.

75274. GARCINIA SD. Clusiaceae

No. 1102. Konakry, French Guinea, January 15, 1927. A small tropical African tree with typical Garcinia leaves and white flowers half an inch in diameter. The yellow fruits, an inch in diameter, contain very large seeds surrounded by a thin layer of yellow flesh which is sweet and palatable, though rather dry.

75275. GARCINIA sp. Clusiaceae.

No. 1102. Konakry, French Guinea. Seedlings of the same species as No. 75274.

75276. GARCINIA sp. Clusiaceae.

No. 1164. Botanic Garden, Victoria, Cameroon, February 10, 1927. An East Indian species producing ribbed obovate fruits which have eight grooves, and a distinct mammillate protuberance on which is placed the stigma. The arillus of the seeds is salmon pink, somewhat like the outside of the fruit. When ripe, the rind softens up like a small melon.

75277. ISOLONA LEONENS: Hutchins. Annonaceae. LEONENSIS Sprague

No. 1215. From the jungle near the road between Akkra and Winneba, Gold Coast, March 27, 1927. A small tropical tree which may be of value as stock for the Annonas. The fruits are about the size of a small North American partners grounds reliable to the size of a small North American partners grounds reliable to the size of a small North American partners grounds reliable to the size of a small North American partners grounds reliable to the size of a small North American partners grounds are size of the size of a small North American partners grounds are size of the size of a small North American partners grounds are size of the size of a small North American partners grounds and the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of a small North American partners are size of the size of the size of a small North American partners are size of the size of the size of a small North American partners are size of the size of the size of a small North American partners are size of the size of ican pawpaw, greenish yellow with small white dots and black longitudinal stripes. The seeds are very abundant and the fruit pulp is scanty. A BOSEPT NO. 71

### 75270 to 75285—Continued.

75278. LANDOLPHIA STOLZII Busse. Apocyna-

No. 1181. Obtained in the market at Moliko, near Buea, Cameroon, February 12, 1927. A tropical climbing shrub producing large pearshaped fruits 4 inches in diameter and of a rusty orange-brown color, with rough protruding lenticels. The flesh is composed of a fibrous arillus of a light-brown color and pleasant acid taste with perhaps a slight acridity. This vine may prove useful as a source of rubber.

For previous introduction see No. 63773.

75279. LISSOCHILUS HEUDELOTII Reichenb. f. Orchidaceae.

No.1231. Near Akkra, Gold Coast, February 27, 1927. An ornamental terrestrial orchid bearing flesh-colored flowers with a purple-spotted lip, on scapes up to 4½ feet high, and strings of tubers as large as potatoes.

75289. LISSOCHILUS MILLSONI Rolfe. Orchida-

No. 1232. Between Akkra and Winneba, Gold Coast, February 27, 1927. A terrestrial herbaceous tropical orchid similar to No. 1231 [No. 75279], but not so attractive.

75281. MONODORA MYRISTICA (Gaertn.) Dunal. Annonaceae.

No. 1242. Agricultural Experiment Station, Aburi, Gold Coast, February 26, 1927. A hand-some tropical evergreen tree bearing an abundance of large fragrant yellow and white flowers.
These flowers are followed by large fruits containing many oily seeds which are aromatic and used as a condiment by the natives of West

For previous introduction see No. 61499.

75282. MUSA ARNOLDIANA Wildem. Musaceae.

No. 1239. Victoria, Cameroon, February 17, 1927. A tropical banana relative about 12 feet high with leaves 7 feet long and fruits 4 inches long.

For previous introduction see No. 55101.

75283. SYNSEPALUM DULCIFICUM (Schum.) Daniell. Sapotaceae.

No. 1173. Agricultural Experiment Station, Assuansi, Gold Coast. An ornamental tropical African shrub about 6 feet high, with dark-red fruits which, when eaten, make sour things taste sweet.

For previous introduction see No. 73071.

75284. BUTIA CAPITATA PULPOSA (Barb.-Rodr.) Receari.

No. 1200. Botanic Garden, Victoria, Cameroon. An ornamental palm.

75285. (Undetermined.)

No. 1220. From the jungle between Winneba and Assuansi, Gold Coast, February 28, 1927. A tropical herbaceous plant with large ovate leaves 10 inches long, which are a delicate crimson on the under side. The flowers are also attractive though rather small.

#### 75286 to 75403.

From East Africa. Seeds collected by L. W. Kephart and R. L. Piemeisel, agricultural explorers, Bureau of Plant Industry. Received October, 1927.

75286. ABUTILON Sp. Malvaceae.

No. 49. Near Nairobi, Kenya Colony, July 3, 1927. A tropical shrub 3 feet or more high, with purple pubescence on the upper part of the stems. The leaves are thin, broad, and heart-shaped, the flowers yellow to orange, and the shapply pointed pods are in clusters an inch across.

### 57034-29-2

#### 75286 to 75403—Continued.

75287. ANDROPOGON PERCUSUS (L.) Willd. Grass.

No. 216. Scott Agricultural Laboratory, Kenya Colony. A perennial grass with hairy nodes, which grows abundantly on the Athi Plains and is commonly found in the Kinangop and Aberdares Mountains up to 9,000 feet altitude. It appears leafy and productive, and spreads by its strong rhizomes. As the seeds shatter when ripe, this grass may be rather difficult to harvest. difficult to harvest.

For previous introduction see No. 49510.

75288. Andropogon sp. Poaceae.

No. 89. July 10, 1927. An important grass growing on the plains between the Athi River and Nairobi, Kenya Colony.

75289. Andropogon sp. Poaceae.

No. 152. July 27, 1927. A perennial grass growing in wet meadows near Uplands, Kenya Colony.

75290. ASTREBLA Sp. Poaceae.

No. 202. Scott Agricultural Laboratory, Kenya Colony. A bunch grass introduced from Australia by the Scott Agricultural Laboratory.

75291. AVENA BYZANTINA Koch. Poaceae. Oats.

No. 277. Boer. A from local variety Southern Rhodesia.

75292. AVENA SATIVA L. Poaceae. Oats.

Ruakur, A local variety No. 278. from Southern Rhodesia.

75298. BRACHIARIA BRIZANTHA (Hochst.) Stapf. Poaceae.

No. 209. Scott Agricultural Laboratory, Kenya Colony. A rather uncommon big leafy grass, resembling a large Paspalum, which seeds rather sparingly and shatters badly. The seed heads are sticky. It is apparently a fine grass

For previous introduction see No. 50687.

75294 to 75300. Cajanus indicus Spreng. Faba-Pigeon pea.

Local varieties.

75294. No. 233. Arusha District, Tanganyika Territory.

75295. No. 234. Moshi District, Tanganyika Territory.

75296. No. 235. l. No. 235. A variety grown by the vakabe tribe, Northern Province, Arusha District, Tanganyika.

75297. No. 237. Tanga District, Tanganyika Territory.

75298. No. 254. From the Government plantation, Serere, Eastern Province, Uganda.

75299. No. 255. From the Government plantation, Serere, Eastern Province, Uganda.

75800. No. 256. From the Government plan tation, Serere, Eastern Province, Uganda.

75301. CALAMAGROSTIS SD. POSCESS.

No. 230. Kinangop Plains, Kenya Colony. A rare perennial grass with a Poalike head.

75302. Canavalia ensiformis (L.) DC. Faba-

No. 266. From the Government plantation, Serere, Eastern Province, Uganda.

75303. Cassia sp. Caesalpiniaceae.

No. 80. Kahiti, near Nairobi, Kenya Colony, July 8, 1927. A tropical shrubby legume 3 to 4 feet high with six to eight smooth sharp-pointed leafiets 2 to 3 inches long, orange flowers, and thin pods 3 to 4 inches long

75304. CHAETOCHLOA AUREA (Hochst.) Hitchc. Poaceae.

No. 208. Scott Agricultural Laboratory and vicinity, Kenya Colony. A common grass 5 feet high, eaten by cattle and game animals. It produces an abundance of seeds and retains them better than most African grasses,

'or previous introduction see No. 51336.

75305 and 75306. CHAETOCHLOA ITALICA (L.) Scribn. (Setaria italica Beauv.). Poaceae.

Local varieties from Southern Rhodesia.

75305, No. 282. Red Manna.

75306. No. 283. Boer Manna.

75307. CHAETOCHLOA SULCATA (Aubl.) Hitchc. Poaceae.

No. 218. Scott Agricultural Laboratory and cinity, Kenya Colony. A broad-leaved, No. 218. Scott Agricultural Datoratory and vicinity, Kenya Colony. A broad-leaved, rather brittle grass, with prominent leaf-veins, much relished by cattle. It occurs chiefly in cool, moist, shady places or at an altitude of 6,000 feet or more. The seed habits are good except that birds are very fond of the seeds and strip the plants rather badly.

For previous introduction see No. 62903.

75308. CHLORIS GAYANA Kunth. Poaceae. Rhodes grass.

No. 88. A grass growing on the plains between the Athi River and Nairobi, Kenya Colony, July 10, 1927. A perennial grass, native to South Africa, first cultivated by Cecil native to South Africa, first cultivated by Cecil Rhodes in South Africa about 1895. It is fine stemmed, very leafy, and about 3 feet high. The flowering head consists of a cluster of 10 to 15 long spreading spikes, and the seeds are produced abundantly. The grass also spreads by running branches, 3 to 6 feet long, which root at every node. On fertile land in central and southern Florida six to seven cuttings are secured in a single season. A good stand will yield from 1½ to 1½ tons of hay to a cutting. This hay is of very fine quality and is eagerly eaten by horses very fine quality and is eagerly eaten by horses and cows.

For previous introduction see No. 47104.

75309 and 75310. CICER ARIETINUM L. Faba-Chickpea. Faba-

From Southern Rhodesia.

75309. No. 279. A large-seeded variety.

75310. No. 280. A white-seeded variety.

75311. CROTALARIA SPECTABILIS Roth. Fabaceae.

No. 73. July 8, 1927, Kenya Colony. A plant 4 to 6 feet high, growing at Kabiti, near Nairobi. The upper stems, petioles, and pods are covered with a brown pubescence. The flowers, an inch in diameter, are yellow with brown markings. There are three leaflets which are darker above and whitish pubescent beneath. The pods, 2 to 2½ inches long, are subtended by a large loose, 5-parted calyx.

75312. CUCUMIS Sp. Cucurbitaceae.

No. 94. July 10, 1927, Kenya Colony. A herbaceous vine growing on the dry plains or clearings between the Athi River and Nairobi.

#### 75286 to 75403—Continued.

75313. CYMBOPOGON AFRONARDUS Stapf. Poa-Grass.

No. 126. July 20, 1927. A variety common on the better land of the plains or on clearings between Kabiti and Juja, Kenya Colony, but not frequent on the driest part of the plains. It is a tall, compactly tufted, perennial grass with very narrow leaves about 2 feet long and flowers in interrupted, oblong panicles.

75314. DIGITARIA Sp. Poaceae.

No. 231. July 12, 1927. This species is very widespread on the Athi Plains, Kenya Colony, judging from the abundance of old roots. At this season, however, the aboveground parts are extremely rare.

75315. Dolichos lablab L. Fabaceae Hyacinth bean.

No. 288. Southern Rhodesia. A. E. S. white-seeded variety.

75316. ECHINOCHLOA PYRAMID Hitche. and Chase. Poaceae. (Lam.) Grass. PYRAMIDALIS

No. 219. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A widely scattered but not uncommon grass, appearing usually in moist places in the highlands. It is leaty, productive, and a heavy seed bearer, retaining its seeds well. It is rather promising for locations with 20 inches or more of rainfall, but is not known to withstand frost known to withstand frost.

For previous introduction see No. 54343.

75317. EHRHARTA SD. Poaceae.

Scott Agricultural Laboratory, Nairobi, Kenya Colony. A perennial, panicumlike grass.

75318. ELEUSINE CORACANA (L.) Gaertn. Poa-Ragi.

No. 289. Rapoko. A grass with milletlike seeds from Southern Rhodesia.

75319. ELEUSINE FLOCCIFOLIA (Forsk.) Spreng.

No. 217. Uplands, Kenya Colony. Large patches of almost pure Eleusine occur throughout the highlands, especially on the Kinangop Plains and the slopes of the Aberdares. Al-though considered a weed in America, it is said here to provide a good deal of dry-season grazing. It grows 2 feet high and is stiff and harsh to the

75320 and 75321. ELICHRYSUM Sp. Asteraceae. Strawflower.

75320. No. 114. Strawflower growing in the clearings above Kiambu, Kenya Colony, July 15, 1927.

321. No. 164. Camp Gusiru, July 29, 1927. White strawflowers common in grasslands above an altitude of 9,000 feet.

Grass.

75322. ERAGROSTIS Sp. Poaceae.

No. 118. Near Nairobi, Kenya Colony, July 16, 1927. An important grass on the dry Athi Plains. It is found with Themeda triandra and Setaria.

75323. ERAGROSTIS Sp. Poaceae. Grass.

Agricultural Laboratory. No. 221. Scott Nairobi, Kenya Colony. A handsome grass when in flower, but not suited for forage, rather frequently seen on the border of the Athi Plains. It is not known to the natives and the Europeans.

75324. ERLANGEA CORDIFOLIA (Benth.) S. Moore. Asteraceae.

No. 79. Kabiti, near Nairobi, Kenya Colony, July 8, 1927. A tropical herbaceous plant with an abundance of deep-purple, tubular-shaped flowers in heads. The stems are purple at the base and light green at the top, and are finely pubescent. The alternate leaves have a soft white pubescence beneath.

75325. FESTUCA sp. Poaceae.

Grass

No. 175. July 31, 1927. A grass frequent on the Kinangop Plains, just below the Kinangop Forest Station, Kenya Colony.

75326. FESTUCA sp. Poaceae.

Frass.

No. 229. A rare grass of good forage habit, growing at Uplands, Kenya Colony, July 26, 1927.

75327. GLADIOLUS Sp. Iridaceae.

No. 161. July 28, 1927. Bulblets of a red herbaceous perennial found in a cedar forest above the Kinangop Forest Station. This gladiolus frequently grows at an altitude of 10,000 feet. It is possibly a common and well-known species, but is said to be strictly confined to the higher altitudes in the Aberdares and in West Kenya (Mount Kenya).

75328. Guizotia abyssinica (L. f.) Cass. Asteraceae.

No. 281. Southern Rhodesia. An annual plant, 6 to 8 feet high, with showy yellow flower heads. The black, shining seeds furnish the Niger oil of commerce.

For previous introduction see No. 58471.

75329. HARPACHNE SCHIMPERI Hochst. Poaceae.

No. 86. A stout annual grass found on hillsides and parched shallow soil between Kabiti and Kikuyu, near Nairobi, Kenya Colony, July 9, 1927. It has cespitose stems up to a foot high, and narrow leaves up to 6 inches long. The lax, secund spikes are from 1 to 3 inches long.

For previous introduction see No. 51594.

75330 and 75331. Helianthus annuus L. Asteraceae. Sunflower.

From Southern Rhodesia.

75330. No. 275. 75331. No. 276.

75332. Hibiscus sp. Malvaceae.

No. 42. July 2, 1927. A yellow-flowered, tropical shrub, 3 to 4 feet high, found near Nairobi, Kenya Colony.

75333 to 75335. HYPARRHENIA Spp. Poaceae. Grass.

75333. HYPARRHENIA Sp.

No. 70. Near Nairobi, Kenya Colony, July 4, 1927. A bunch grass, 3 to 5 feet high, with harsh bluish leaves.

75334. HYPARRHENIA Sp.

No. 160. July 27, 1927. An oatlike grass found on the Kinangop Plains, Kenya Colony.

75335. HYPARRHENIA Sp.

No. 225. Near Scott Agricultural Laboratory, Kenya Colony. One of the most common grasses in the old fields of the Kikuyu Reserve, near Nairobi, Kenya Colony. It is always part of the general mixture of grasses and is never seen in pure stand.

75336. LATHYRUS SATIVUS L. Fabaceae.

Bitter vetch.

No. 274. Southern Rhodesia. Wedge.

75286 to 75403—Continued.

75337. LEPTOCHLOA OBTUSIFLORA Hochst. Poaceae. Grass.

No. 215. Scott Agricultural Laboratory, Kenya Colony. A handsome grass of medium height, quite common on the plains, though not indigenous. In the region of Nairobi it is not leafy enough for good forage.

75338 and 75339. LINUM USITATISSIMUM L. Linaceae. Flax.

From Southern Rhodesia.

· 75338. No. 284. A small-seeded variety.

75339. No. 285. A large-seeded variety.

75340. MOMORDICA Sp. Cucurbitaceae.

No. 74. A tendril-bearing vine found at Kabiti, near Nairobi, Kenya Colony, July 8, 1927. There are five serrate sharp-pointed leaflets, about 2 inches long, covered with soft, thin pubescence. The middle leaflet is larger and the two inner ones small, and the midrib is at one side. The ovoid fruits, 2 to 4 inches long, have angular ridges the entire length, and the thick soft pulpy outer flesh is pink to orange. The seeds, with black and white markings, are enveloped in the red inner flesh.

75341. Momordica sp. Cucurbitaceae.

No. 101. Region of Kabiti, near Nairobi, Kenya Colony, July 11, 1927. A tendril-bearing vine with simple, heart-shaped, serrat leaves. The fruits, tinged with orange, are covered with dense soft spines, and the seeds are enveloped in the red pulp, as are those of No. 74 [No. 75340].

75342. ORYZA SATIVA L. Poaceae.

Rice.

No. 286. From Southern Rhodesia. Watar-ibune.

75343. PASPALUM SCROBICULATUM L. Poaceae. Grass.

No. 210. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A creeping grass, forming a heavy mat, which is very resistant to drought, though no more so than Paspalum notatum and P. dilatatum. It does not occur in the grazing areas and only sparingly in the bush. This variety seeds well, but the seed heads are mixed with the foliage, making the harvesting difficult.

For previous introduction see No. 56789.

75344. PASSIFLORA EDULIS Sims. Passifloraceae. Purple granadilla.

From Lemora, Kenya Colony. A locally grown variety.

75345 to 75348. Pennisetum spp. Poaceae. Grass.

75345. PENNISETUM CILIARE (L.) Link (P. cenchroides Rich.).

No. 212. Scott Agricultural Laboratory, Nairobi, Kenya Colony. Originally from a dry region near Archeis Station, in the arid Northern Frontine Province. A very promising grass for semiarid places. At Nairobi it produces a fine leafy growth of excellent forage appearance. There is an abundance of seeds in heads resembling those of crimson clover when ripe. The seeds strip easily while the remainder of the plant is still green.

For previous introduction see No. 51648. 75346. Pennisetum sp.

No. 176. A grass abundant on the plains near the Kinangop Forest Station, Kenya Colony, July 31, 1927.

75347. PENNISETUM sp.

No. 211. Scott Arricultural Laboratory, Nairobi, Kenya Colony. A tall bunch grass, very resistant to drought, which is indigenous above Nairobi, but not in the grazing areas. It is harsh in texture and not used for forage, but makes excellent thatch which lasts for years. The grass is planted in rows to divide the shambas (fields or farms).

#### 75348. PENNISETUM Sp.

No. 214. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A prostrate grass which seeds sparingly, found in marshy places at Uplands, Kenya Colony. The stems are red and 4 to 6 feet long.

#### 75349. PHALARIS ARUNDINACEA CEA L. Poaceae. Reed canary grass

Muikoigo, Kikuyu. Scott Agricul-NO. 213. Mukongo, Kikuyu. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A tall rough grass usually considered indigenous to the northern part of the Northern Hemisphere, but it is apparently native in marshy land in the Kenya highlands. The natives regard it as a good forage grass.

For previous introduction see No. 68146.

75350 to 75373. Phaseolus spp. Fabaceae.

# 75356. Phaseolus aureus Roxb. Mung bean.

No. 257. Mpokya. Government plation. Serere, Eastern Province, Uganda. Government planta-

75351 to 75353. Phaseolus lunatus L.

Lima bean.

Locally grown varieties from the Upare Mountains, Moshi District, Tanganyika.

75351. No. 244. From Kinkwema (Kipare). Only the seeds of this plant are edible, the green parts being poisonous.

75352. No. 249. An unknown variety.

75353. No. 250. From Kinkwema (Kipare). Only the seeds of this plant are edible, the green parts being poisonous.

75354. Phaseolus mungo L.

No. 265. A locally grown variety from the Government plantation, Serere, Eastern Province, Uganda.

75355 to 75373. Phaseolus vulgaris L. Common bean.

Nos. 75355 to 75361 are from Moshi District, Tanganyika Territory.

75355. No. 245. 75359. No. 251.

75356. No. 246. 75360. No. 252.

75357. No. 247. 75361. No. 253.

75358, No. 248.

Nos. 75362 to 75368 are from the Government plantation, Serere, Eastern Province, Uganda.

75362. No. 258. 75366. No. 262.

75363. No. 259. 75367. No. 263.

75364. No. 260. 75368. No. 264.

75365. No. 261.

Nos. 75369 to 75373 are from Southern Rhodesia.

75369. No. 267. Mont sor.

75370. No. 268. Lyonnais.

75371. No. 270. Parisian.

75372. No. 271. Algerian white wax.

75373. No. 272. Natal sugar.

#### 75286 to 75403—Continued.

75374. SOLANUM Sp., Solanaceae.

No. 43. Mtongu. Near Nairobi, Kenya Colony, July 2, 1927. A tropical shrub, thorny at the base, with thick pubescent, simple potatolike leaves, deep-purple flowers having yellow stamens, and pale-green fruits with dark-green markings near the calyx.

75375. WITHANIA SOMNIFERA Dunal. Solanaceae.

No. 99. From the region of Kabiti, near Nairobi, Kenya Colony, July 11, 1927. A tropi-cal plant, about 2½ feet high, with small red

75376. SORGHUM TRICHOPUS Stapf. Poaceae.

No. 205. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A stiff coarse grass, 5 feet high, found in bush land.

75377. Sorghum sp. Poaceae.

No. 178. A common grass on the Kinangop Plains, between the Kinangop Forest Station and Nainasha, Kenya Colony. It is of very soft texture and is a promising grass for high altitudes.

#### 75378. SPOROBOLUS Sp. Poaceae.

No. 222. Kikuyu, kigutu. Scott Agricultural Laboratory, Nairobi, Kenya Colony. A tall grass used by the natives as fences or hedges for dividing their shambas (fields or farms). It is also used for thatching, but, so far as known, it is not grazed to any extent by cattle or game animals, though it is said to be relished by horses.

75379. SPOROBOLUS Sp. Poaceae.

No. 223. Scott Agricultural Laboratory, Nairobi, and Athi Plains, Kenya Colony. A common grass in stream beds and low places on the plains at an altitude of 5,000 feet or less. It is not seen in the highlands and is probably not an important element in grazing.

75380 to 75382. STIZOLOBIUM spp. Fabaceae.

From Southern Rhodesia.

75380. STIZOLOBIUM ATERRIMUM Piper and Mauritius bean. Tracy.

No. 269. Tracy's early black.

75381. STIZOLOBIUM NIVEUM (Roxb.) Kuntze. Chinese velvetbean.

No. 273. White stringless.

75382. STIZOLOBIUM VELUTINUM Piper and Tracy. Velvetbean.

No. 287.

75383. STREBLOCHAETA sp. Poaceae.

No. 169. A local grass found above the bamboo forest, between Camp Gustiru and the Kinangop Forest Station, Kenya Colony, Kinangop I July 30, 1927.

75384. THEMEDA TRIANDRA FORSK. Poaceae.
Rooi grass.

No. 204. Nirigeta, kikuyu. Scott Agricultural Laboratory, Nairobi, Kenya Colony. This is the predominant, most conspicuous, and most valuable grass on the Kapiti and Athi Plains, and is common up to an altitude of \$2.000 test or proper It is propried as a first tending. Atm Plains, and is common up to an attitude of 8,000 feet or more. It is regarded as a fine feeding grass even when dry, and comes back quickly after burning. The seeds dry as soon as ripe and quickly penetrate the ground because of their horny points. The seeds are difficult to germi-nate artificially, and are probably difficult to

For previous introduction see No. 54044.

75385. TRIFOLIUM JOHNSTONI Oliver. Fabaceae. Kenya clover.

No. 227. A creeping white clover almost indistinguishable from T. repens. It is widely distributed in the Kenya highlands but meely occurs in pure stands. Atthough seknewledged to be highly pulatable and nutritions, it was not found in cultivation. It withstands some frost, but not freezing.

#### 78066. TRIFOLIUM Sp. Fabaceae. Clove

No. 228. Uplands cressing red clover. Uplands, Kenya Colony. A clover which is fairly common in the Kenya highlands is 1,490 and 9,400 fact altitude. It occurs higher than T. johnstoni, but is not so abundant. The foliage is rather stiff, and is claimed by some to be neither palatable nor nutritious. Several forms and colors of blossoms were met with, but are believed to be variations of the same species. The flowers are wine colored or lighter, turning blue when ripe; not a profuse bloomer and usually a shy seeder.

#### 75387. VERNONIA sp. Asteraceae.

No. 11. Near Nairobi, Kenya Colony, June 28, 1927. A composite with tubular purple flowers and swollen stalks, found in a clearing with oatgrass.

#### 75388. VERNONIA sp. Asteraceae.

No. 20. Near Nairobi, Kenya Colony, June 29, 1927. A semiclimbing herbaceous plant with purple flowers, often seen on the edge of the woods along the side of the road, where it covers the low traces and brokes.

75389 to 75395. Vigna sinensis (Torner) Savi. Fabaceae. Cowpea.

Collected in Tanganyika Territory.

75389. No. 236. From Moshi District.

75390. No. 238. From Tanga District.

75391. No. 239. From Tanga District.

75392. No. 240. From Moshi District.

75393. No. 241. From Moshi District.

75394. No. 242. From Moshi District.

75895. No. 243. From Newanza District.

75396 to 75402. Collected in Kenya Colony.

### 75396. (Undetermined.)

No. 22. Near Nairobi, June 29, 1927. A vine resembling Parthenocissus in habit, with thick brittle leaves.

#### 75387. (Undetermined.)

No. 58. Near Nairobi, July 4, 1927. A legume with leaflets 2 to 3 inches across and a large underground root which the natives boil and use as a remedy for fever.

#### 75398. (Undetermined.)

No. 83. July 8, 1927. Bulbs collected at Kabiti, near Nairobi.

For previous introduction of seeds and description see No. 75221.

#### 75399. (Undetermined.)

No. 100. From the region of Kabiti, near Nairobi, July 11, 1927. A shrub, about 6 feet high, with rhamnuslike leaves and fruits four in a cluster, loosely attached at the base, which become red.

#### 75400. (Undetermined.)

No. 147. A small tree found at the edge of the forest near Uplands, July 26, 1927.

### 75286 to 75403—Continued.

75401. (Undetermined.)

No. 149. A shrub or small tree found on the upper slopes of the Rift Valley, July 27, 1927.

75402. (Undetermined.)

No. 226. A small leguminous plant found in the region of Kikuyu, near Nairahi, July 12, 1927.

### 75403. CYRTANTHUS.SANGUINEUS (Lindl.) Hook. f. Amaryllidaceae.

No. 232. Athi Plains. A handsome amagilidaceous plant, native to Kaffraria, South Africa. The narrow, dark-green leaves taper into a rounded petiole, and the flower, yellowish on the outside and bright orange-red within, is borne on a scape 3 or 4 inches high.

# 75404. CITRUS NOBILIS UNSHIU Swingle. Rutaceae. Satsuma orange.

From Silverhill, Ala. Bud wood presented by F. Mays, through W. T. Swingle, Bureau of Plant Industry. Received October 29, 1927.

A hybrid Satsuma orange.

# 75405. PICEA GLEHNI (Schmidt) Masters. Pinaceae. Spruce.

From Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received November 12, 1927.

Nos. 25 and 26. Collected in the mountains near Jozankei, south of Sapporo, October 17, 1927. A large tree up to 150 feet in height, native to northern Japan. The seeds are said to retain their vitality for seven years.

# 75406. Carya tonkinensis Lecomte. Juglandaceae.

From Kangpoki, Assam, India. Seeds presented by G. C. Crozier, of the American Baptist Foreign Missionary Society. Received November 16, 1927.

A hickory tree native to Assam, India. The leastest are made up of five to seven ovate-langeolate leaflets, and the depressed globose nuts are about 1½ inches in diameter, with a thick shell.

### 75407. DIOSCOREA Sp. Dioscoreaceae.

From the Fiji Islands. Tubers presented by Gerrit P. Wilder, Honolulu, Hawaii. Received January 29, 1926. Numbered December, 1927.

Fijian peart yam. This variety is known in the Fiji Islands as Kawhai. According to Mr. Wilder, the tubers are smaller than those of the coarser varieties. He also considers this variety of better quality than a sweetpotato.

#### 75408 to 75438.

From Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received in November, 1927.

75408 to 75414. CASTANEA CRENATA Sieb. and Zucc. Fagaceae. Japanese chestnut.

75408. No. 28. A wild form found near Nabaribetsu Station, Hokkaido, October 17, 1927.

75409. No. 29. Shiba-guri. A wild variety from the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido, September 20, 1927.

76410. No. 30. A cultivated variety originally from Shinshu, Nagano Ken, growing in the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido, October 13, 1927.

- 75411. No. 31. A cultivated variety, originally from Shinshu, Nagano Ken, growing in the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido, September 20, 1927.
- 75412. No. 32. Sho-gwatsu. A late, cultivated variety from Fukuchi farm, Mamada, Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
- 75413. No. 33. October 21, 1927. Seeds from the same tree as No. 32 [No. 75412].
- 75414. No. 34. Cho-bei. A cultivated variety from Fukuchi farm, Mamado Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
- 75415. Betula japonica Siebold. Betulaceae. Japanese white birch.
- No. 35. Shira kamba. Near Sapporo, October 17, 1927. A Japanese tree about 60 feet high.
- 75416 to 75438. CASTANEA CRENATA Sieb. and Zucc. Fagaceae.
  - 75416. No. 36. Shimo-katangi. A cultivated variety from Fukuchi farm, Mamada Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
  - **75417.** No. 37. Seeds from the same tree as No. 36 [No. 75416].
  - 75418. No. 38. Otamba. A cultivated variety from Fukuchi farm, Mamada Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
  - 75419. No. 39. Yoro. A cultivated variety, originally from Angyo, growing at the Fukuchi farin, Mamada Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
  - 75420. No. 40. Kamasu-guri. A cultivated variety from Fukuchi farm, Mamada Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
  - 75421. No. 41. Yoro. A late cultivated variety from Fukuchi farm, Mamada Cho, Nishikuroda, Tochigi Ken, October 21, 1927.
  - 75422. No. 42. Okutamba. A cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927. This tree was a seedling and was not grafted. A seedling is much older before it bears than a grafted tree.
  - 75423. No. 43. Chusei tamba. A very prolific, cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927.
  - 75424. No. 44. Yamaguchi-ganne. A very late, cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927. A grafted tree.
  - 75425. No. 45. Togenashi-guri. A cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927. A rare variety and not of much commercial value. It bears fewer fruits than other kinds, and these are attacked by worms.
  - 75426. No. 46. Okutamba. A cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927. A grafted tree whose fruit is not good for storing because it is attacked by the fruit worms.
  - 75427. No. 47. A cultivated variety, originally from Angyo, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927. The tree grows well, but does not have many fruits. The varietal name is unknown.

#### 75408 to 75438—Continued.

- 75428. No. 48. Shimo-katsugi. A cultivated variety, originally from Ayabe, Kyoto, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75429. No. 49. Wazo. A cultivated variety from Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75430. No. 50. Ganne. A cultivated variety from Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75431. No. 51. Chobei. A cultivated variety from Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927. The main stem is infected with chestnut blight, and the owner said that the tree would die in three or four years.
- 75432. No. 52. Kinyoshi. A cultivated variety, originally from Okitsu, Schizuaka Ken, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75433. No. 53. Tamba-guri. A late cultivated variety from Sunaga farm, Oyama Cho, Tochigi Ken, October 20, 1927.
- 76434. No. 54. Banseki. A cultivated variety, originally from Angyo, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927. The trunk is infected with blight. The fruit ripens the last part of October and the first part of November.
- 75435. No. 55. Otamba, chokoji. A cultivated variety originally from Angyo, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75436. No. 56. Kenaga. A cultivated variety from Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927.
- 75437. No. 57. Kin-seki (golden red). A cultivated variety originally from Angyo, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, Ottober 21, 1927. The varietal name was given by the owner of this tree and is not a recognized variety.
- 75438. No. 58. Sho-qwatsu. A cultivated variety, growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken, October 21, 1927. The original scions of this tree came from Ayabe, Kyoto, and were grafted on wild stock of Shiba-guri.
- 75439. Iris sp. Iridaceae.
- From Spain. Bulbs collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received April 21, 1927. Numbered in December, 1927.
- No. 1297. March 31, 1927. A dwarf blue-flowered iris, not over 6 or 8 inches tall, covering patches of hundreds of square yards of dry sandy soil near the sea along the southern coast of Spain between Malaga and Gibraltar.

#### 75440 to 75525.

- From Japan. Seeds collected by R. K. Beattle, Bureau of Plant Industry. Received in November, 1927.
- Nos. 75440 to 75455 were collected near Sapporo, Hokkaido, Japan, in October, 1927.
  - 75440. PICEA JEZOENSIS (Sieb. and Zucc.) Carr. Pinaceae. Yeddo spruce.
  - No. 60. Kuro-ezo. October 17, 1927. A Japanese tree, up to 150 feet in height, with dark-gray bark and slender horizontally spreading branches. The leaves are silvery white above and dark green beneath, and the staminate flowers are orange-crimson.
    - For previous introduction see No. 65942.

75441. ACTINIDIA ARGUTA (Sieb. and Zucc.) Planch. Dilleniaceae. Bower actinidia.

No. 61. Kokuwa. October 17, 1927. A white-flowered shrubby Japanese vine with broadly oval leaves and greenish yellow fruits having a sweet flavor.

For previous introduction see No. 69359.

75442. CORNUS CONTROVERSA Hemsl. Cornaceae. Giant dogwood.

No. 62. Midzuki. October 17, 1927. A Japanese tree up to 60 feet high, with a trunk 7 feet in girth. The numerous, long branches extend at right angles to the trunk, with the lowest branches sometimes touching the ground. The white or slightly yellowish flowers are in flat clusters 6 or 7 inches in diameter, appearing from late May to early June.

For previous introduction see No. 61775.

75443. ABIES SACHALINENSIS (Schmidt.) Masters. Pinaceae. Sakhalin fir.

No. 63. Todomatsu. October 17, 1927. A tree 150 feet high, native to northern Japan. It has the nordmanniana arrangement of leaf, but in the forward-pointing leaves, which are three-fourths of an inch to 1½ inches long and very white beneath; it resembles Abies veitchii. The buds are white and resinous, and the cones are 2½ to 3¼ inches long. This tree is liable to injury by late frost in the United States.

75444. Fraxinus Longicuspis Sieb. and Zucc. Oleaceae. Ash.

No. 64. Aodamo. October, 1927. A graceful Japanese tree up to 45 feet high, with compound leaves of five to seven lanceolate long-pointed leaflets. The white flowers appear in June, and the foliage turns purple in autumn.

75445. Juglans sieboldiana Maxim. Juglandaceae. Japanese walnut.

No. 65. Omigurumi. October 17, 1927. A round-headed Japanese tree up to 60 feet high, with 9 to 17 ovate-serrulate leaflets and ovoid, thick-shelled nuts.

75446 to 75525. CASTANEA CRENATA Sieb. and Zucc. Fagaceae. Japanese chestnut.

These varieties were obtained in October, 1927.

Nos. 75446 to 75468 are cultivated trees growing at the Tateno farm, Nogi Mura, Shimotsuga Gun, Tochigi Ken.

**75446.** No. 66. Seeds from the same tree as No. 47 [No. 75427].

75447 and 75448. Seeds from the same tree as No. 48 [No. 75428].

75447. No. 67. 75448. No. 68.

**75449 to 75451.** Seeds from the same tree as No. 51 [No. 75431].

75449. No. 69. 75451. No. 71. 75450. No. 70.

Nos. 75452 to 75455 are from cultivated trees growing at the Sunaga farm, Oyama Cho, Tochigi Ken.

75452. No. 72. An unknown variety.

**75453.** No. 73. Seeds from the same tree as No. 53 [No. 75433].

**75454 and 75455.** Seeds from the same tree as No. 72 [No. 75452].

75454. No. 74. 75455. No. 75.

75456 to 75460. Seeds from the same tree as No. 54 [No. 75434].

**75458.** No. 76. **75459.** No. 79. **75457.** No. 77. **77460.** No. 80.

75458. No. 78.

### 75440 to 75525—Continued.

75461. No. 81. Seeds from the same tree as No. 51 [No. 75431].

75462. No. 82. Seeds from the same tree as No. 54 [No. 75434].

75463 to 75465. Seeds from the same tree as No. 58 [No. 75438].

75463. No. 83. 75465. No. 85.

75464. No. 84.

75466. No. 86. Seeds from the same tree as No. 55 [No. 75435].

75467 and 75468. Seeds from the same tree as No. 57 [No. 75437].

75467. No. 87. 75468. No. 88.

Nos. 75469 to 75475, Shiba-guri or yama-guri, are wild trees growing at Chojagahara, Karasawa Valley, Kitakano Mura, Tagata Gun, Shizuoka Ken. The field where these trees are growing is burned over every three or four years.

75469. No. 89. 75473. No. 93.

75470. No. 90. 75474. No. 94.

75471. No. 91. 75475. No. 95.

75472. No. 92.

75476. No. 96. Shiba-guri or yama-guri. Wild trees growing in a mixed forest at Tagata Gun, Shizuoka Ken.

75477 to 75481. Shiba-guri or yama-guri. Wild trees growing at Chojagahara, Karasawa Valley, Kitakano Mura, Tagata Gun, Shizuoka Ken. The field where these trees are growing is burned over every three or four years.

75477. No. 97. 75480. No. 100.

75478. No. 98. 75481. No. 101.

75479, No. 99.

75482 to 75484. From wild trees growing in a forest at Dodoko.

75482. No. 102. 75484. No. 104.

75483. No. 103.

75485. No. 105. Shiba-guri. Wild trees growing in the forest at Sekido, Tamagawa Mura, Tokyo-fuka.

75486 to 75490. Tamba-guri. Cultivated trees growing at Kobara, Kitakami Mura, Tagata Gun, Shizuoka Ken.

75486. No. 106. 75489. No. 109.

75487. No. 107. 75490. No. 110.

75488. No. 108.

75491 to 75493. Shiba-guri. Wild trees growing at Ohna, Kitakano Mura, Tagata Gun, Shizuoka Ken.

75491. No. 111. 75493. No. 113.

75492. No. 112.

75494 and 75495. Obtained at Tokyo and said to have come originally from Chosen.

75494. No. 114. 75495. No. 115.

75496 and 75497. Wild trees growing at Susono, Fukara Mura, Sunto Gun, Shizuoka Ken.

75496. No. 116. 75497. No. 117.

75498 and 75499. Shiba-guri. Wild trees growing at Subashiri-yama, on the east side and at the foot of Mount Fuji, Sunto Gun, Shizuoka Ken.

75498, No. 118, 75499, No. 119.

75500. No. 120. Wild trees growing at Tsukuhara, Nishikida Mura, Tagata Gun, Shizuoka Ken. Seeds obtained at Mishima Machi

#### 75440 to 75525-Continued.

75501. No. 121. A cultivated tree growing at Noboribetsu, Hokkaido.

75502 and 75503. Wild trees growing on the east side of Mount Fuji, Omikami-yama, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75502. No. 122. 75503. No. 123.

75504 to 75508. Shiba-guri. Wild trees growing at Subashiri-yama, on the east side of Mount Fuji, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75504. No. 124. 75507. No. 127.

75505. No. 125. 75508. No. 128.

75506. No. 126.

75509. No. 129. Wild trees growing at Subashiri-yama, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75510 and 75511. Wild trees growing in the foreston the north side of Subashiri-yama, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75510. No. 130. 75511. No. 131.

75512 to 75516. Wild trees growing in the forest at Omikami-yama, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75512. No. 132. 75515. No. 135.

75513. No. 133. 75516. No. 136.

75514. No. 134.

75517 and 75518. Shiba-guri, yama-guri. Wild trees growing at Yata, Nishikida Mura, Tagata Gun, Shizuoka Ken.

75517. No. 137. 75518. No. 138.

75519 to 75525. Wild trees growing at the foot of Mount Fuji in the forest at Omikamiyama, Subashiri Mura, Sunto Gun, Shizuoka Ken.

75519. No. 139. 75523. No. 143.

75520. No. 140. 75524. No. 144.

75521, No. 141. 75525. No. 145.

75522. No. 142.

# 75526. ERIOSEMA CAJANOIDES (Guill. and Perr.) Hook. f. Fabaceae.

From Luchenza, Nyasaland Protectorate, Africa. Seeds presented by L. S. Norman. Received January 22, 1927. Numbered in December, 1927.

No. 5. An erect branching tropical African shrub 4 to 5 feet high, with three oblanceolate leadlets 2 to 3 inches long, coated beneath with fine gray pubsecence. The yellow flowers are in moderately close racemes 2 to 4 inches long, and the short broad pods are thinly covered with long grayish silky hairs.

# 75527 and 75528. Bromus coloratus Steud. Poaceae. Bromegrass.

From Castro, Chiloe Island, Chile. Seeds presented by Raymond and Elnora Shannon, through Paul Russell, Bureau of Plant Industry. Received March 23, 1927. Numbered in November, 1927.

A grass 1 to 2 feet high, with linear leaves and long slender panicles. Native to southern South America.

75527. No. 1.

75528. No. 2.

#### 75529 and 75530.

From Brignoles, France. Seeds presented by R. Salgues, Director of the Brignoles Botanic Station. Received November 9, 1927.

#### 75529 and 75530—Continued.

75529. BRACHYPODIUM PHOENICOIDES (L.) Roem. and Schult. Poaceae. Grass.

A perennial grass 1 to 2 feet high, native to the Mediterranean region, with very narrow leaves tufted at the base, and long spikelets of 16 to 20 florets resembling wheatgrass.

75530. TRIFOLIUM STELLATUM L. Fabaceae.

An annual upright clover about a foot high, native to the Mediterranean region, possibly of value as a forage crop.

For previous introduction see No. 69863.

#### 75531. EPHEDRA SINICA Stapf. Gnetaceae.

From Peking, China. Seeds presented by B. E. Read, through W. T. Swingle, Bureau of Plant Industry. Received November 1, 1927.

A low branching shrub about a foot high, native to northern China. The leaves are minute and scalelike, This shrub is considered valuable as a source of ephedrin.

#### 75532. Prunus sp. Amygdalaceae.

From Otaru, Japan. Seeds presented by C. H. McCrory, of the Rose Kindergarten. Received November 8, 1927.

These seeds, which were received without any information, are apparently a form of Japanese flowering cherry.

## 75533. DELPHINIUM GRANDIFLORUM L. Ranunculaceae. Siberian larkspur.

From Japan. Seed collected by R. K. Beattle, Bureau of Plant Industry. Received in November, 1927.

No. 18. A variety, originally from Russia, growing in the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido, October 10, 1927.

#### 75534 to 75574.

From Melbourne, Victoria, Australia. Seeds obtained from the Melbourne Botanic Gardens, through Miss Anne MacIlvaine, Trenton, N. J. Received November 3, 1927.

75534 to 75541. ACACIA spp. Mimosaceae.

### 75534. ACACIA ACCOLA Maiden and Betche.

An erect bushy shrub 6 to 8 feet high, native to New South Wales, Australia. The linear, slightly curved phyllodes are 3 to 5 inches long and one-twelfth of an inch wide. The flowers are borne in racemes about 2 inches long and are arranged in heads of 10 to 20 flowers each. The linear waxy pods are flat and about 4 inches long.

#### 75585. ACACIA ACINACEA Lindl.

A much-branched shrub with oblique phyllodes less than an inch long and globular heads of small flowers. Native to Australia.

### 75536. ACACIA DECURRENS Willd.

Green wattle.

Variety normalis. A variety of the green wattle with sepals as long as the petals, which is cultivated in California. The typical form is a handsome tree with light-green feathery foliage and bright-yellow flowers.

For previous introduction see No. 67946.

#### 75537. ACACIA DISCOLOR Willd.

An unarmed shrub or small tree native to southeastern Australia and Tasmania. The terminal axillary clusters of yellow flowers are produced during the autumn.

For previous introduction see No. 74423.

#### 75534 to 75574—Continued.

75538. Acacia terminalis (Salisb.) Macbride (A. elata A. Cunn.).

A handsome unarmed tree 60 feet or more in height, native to New South Wales. The young shoots are often tinged with a golden yellow pubescence, and the globular, yellow flower heads are in clusters often 6 inches long.

For previous introduction see No. 56559. 75539. ACACIA HOWITTI F. Muell.

A shrub often 15 feet high, native to Australia. The branchiets are slender and flexible, bearing curved lanceolate darkgreen phyllodes and axillary clusters of small flower heads.

75540. ACACIA LINIFOLIA PROMINENS (A. Cunn.) Moore.

An unarmed shrub, 12 to 18 feet high, native to New South Wales. It has angular branchlets and very narrow phyllodes. The small, globular, yellow flower heads are borne in racemes about as long as the phyllodes.

For previous introduction see No. 56560.

75541. ACACIA NERIIFOLIA A. Cunn.

Bald acacia.

A handsome tree, native to eastern Australia, 40 to 50 feet high, with slender branchets, meally-tomentose when young, but soon glabrous. The small globular flower heads are in simple slender racemes, shorter than the linear phyllodes. The straight, flat pods are several inches long. The heartwood is light yellow, and the rest of is a darker color. It is close grained and tough and has attractive markings.

For previous introduction see No. 48056.
75542. Agonis flexuosa (Willd.) DC. Myrtacese.

A tall shrub or tree up to 40 feet high, native to Western Australia. The young shoots are silky, and the linear-lanceolate leaves, 2 to 6 inches long, have in their axils small heads of flowers with persistent white petals.

75543. ALECTRYON SUBCINEREUM (A. Gray) Radlk. (Nephelium leiocarpum F. Muell.) Sapindaceae.

A small evergreen Australian tree.

For previous introduction see No. 51000.

75544. BAECKEA VIRGATA Andrews. Myrtaceae.

An erect, loosely branched shrub, up to 12 feet high, native to Australia. The narrowly oblong leaves, less than an inch in length, are opposite, and the small, white flowers are in clusters of two or three in the axils of the upper leaves.

75545. BANKSIA INTEGRIFOLIA L. f. Proteaceae.

A small tree with the young shoots covered with rich brown woolly hairs. The scattered, lanceolate leaves, up to 6 inches long, are silvery white beneath, and the large, greenish yellow flowers are in oblong spikes 6 inches long. Native to Australia.

75546. Banksia spinulosa J. E. Smith. Proteaceae.

A tall evergreen shrub native to Australia. The narrowly linear leaves, 3 inches long, are notched at the end with a prominent point in the notch and have revolute margins. The large yellow flowers are borne in ovoid spikes 2 to 3 inches long.

57034-29-3

#### 75534 to 75574—Continued.

75547. Brachychiton acerifolium F. Muell. (Sterculia acerifolia Cunn.). Sterculiaceae.

An Australian tree, up to 35 feet high, with dark-green shining, maplelike leaves 6 to 10 inches wide, and scarlet, bell-shaped flowers which hang from the tree in large clusters.

For previous introduction see No. 44958.

75548. CALLISTEMON ACUMINATUS Cheel. Myrtaceae.

An Australian shrub with lanceolate sharppointed leaves and spikes of ornamental flowers.

75549. CALLISTEMON RIGIDUS R. Br. Myrtaceae.

A tall shrub, sometimes 30 feet high, native to New South Wales. The leaves, 2 to 5 inches long, are narrowly linear, and the red flowers, with dark-red stamens an inch long, are borne in large dense spikes.

For previous introduction see No. 47549.

75550. Cassia artemisioides Gaud. Caesalpiniaceae.

An erect bushy shrub covered with silky white tomentum. The leaves are made up of three to six pairs of linear-terete leaflets an inch long, and the yellow flowers are in short dense racemes. Native to Australia.

75551. Casuarina glauca Sieber. Casuarinaceae. Beefwood.

An Australian tree, 60 to 70 feet high, usually straight and of rapid growth. The timber is red, beautifully marked, hard and tough, and is used for cabinetwork, staves, and fuel. In perious of drought the foliage is used for feeding stock. When the trees are cut down, the young growth shoots up quickly from the stump. This variety grows in the coastal districts, marshy country, and frequently in land submerged with tidal water. It makes a handsome shade tree.

For previous introduction see No. 42286.

75552. CHORIZEMA CORDATUM Lindl. Fabaceae.

A tall slender glabrous evergreen shrub, 7 to 10 feet high, with weak branches, more or less prickly leaves about 2 inches long, and numerous red flowers. It is propagated from cuttings and may be grown in the open in southern California and southern Florida, being excellent for training on pillars and trellises. In colder regions it is an attractive plant for the cool greenhouse.

For previous introduction see No. 44831.

75553. CORREA BAUERLENII F. Muell. Rutaceae.

An Australian shrub which has branchlets covered with dark-brown hairs, opposite lanceolate thin leaves pale beneath, and yellowish green tubular flowers in the axils.

75554. Doryanthes larkini C. Moore. Amaryllidaceae. Spearlily.

A perennial herb, with sword-shaped leaves 6 feet long, native to Australia. The flower stem is 8 feet high, the upper 3 feet being a compact panicle of flowers which are 2 inches long, red outside and white inside.

75555 to 75562. EUCALYPTUS spp. Myrtaceae.

75555 to 75557. EUCALYPTUS CALOPHYLLA Lindl. Port Gregory gum.

Varieties developed in Australia.

For previous introduction see No. 44959.

75555. A variety with salmon-colored flowers.

#### 75534 to 75574—Continued.

75558. A white-flowered variety.

75557. A rose-flowered variety.

75558. EUCALYPTUS CANALICULATA Maiden. Tall gray gum.

An Australian tree which reaches a height of 120 feet and a diameter of 4 feet. The leaves are narrowly lanceolate, the fruits are hemispheric with two ridges around the outside, forming a canal, and the snuffbrown wood is coarse and tough.

75559 to 75581. EUCALYPTUS FICIFOLIA F. Scarlet gum.

Brilliant-flowered Australian trees.

For previous introduction see No. 49842.

75559. A crimson-flowered variety.

75560. A variety with orange-red flowers.

75561. A white-flowered variety.

75562. EUCALYPTUS INCRASSATA DUMOSA Maiden.

A shrub or small tree, native to Australia, with smooth white bark. The thick smooth leaves are lanceolate to ovate-falcate, and 3 to 4 inches long, flowers in clusters of four to eight on axillary peduncles, and oblong fruits about 1 inch in length.

75563. GREVILLEA BANKSII R. Br. Proteaceae.

Variety Forsteri. An evergreen shrub, 6 to 8 feet high, with red flowers.

For previous introduction see No. 40042.

75564. Kennedia coccinea Vent. Fabaceae.

A handsome trailing or twining woody vine native to Australia. It has three or five ovate leaflets, and the scarlet flowers are in longstemmed clusters of 15 to 20.

75565 to 75567. MELALEUCA spp. Myrtaceae. 75565. MELALEUCA NODOSA J. E. Smith.

A tall smooth shrub, native to Australia, with rigid awl-shaped leaves and small heads, half an inch in diameter, of pale-yellow flowers.

75566. MELALEUCA PUBESCENS Schauer.

A tall shrub or small tree native to Australia. The small linear leaves, half an inch long, are crowded on the pubescent branches, and the small white flowers are borne in loose cylindrical spikes.

75567. MELALEUCA STYPHELIOIDES J. E. Smith.

A tall Australian tree, sometimes 80 feet high, with thick spongy bark. The leaves are very small, and the small creamy white flowers are in dense spikes about 2 inches long.

75588. METROSIDEROS TOMENTOSA A. Rich Myrtaceae. Irontree

A handsome tree, about 40 feet high, growing chiefly near the sea. It has spreading branches, and brilliant scarlet flowers in large terminal cymes. The wood is hard and durable, and is especially useful for boat building.

For previous introduction see No. 51048.

75569. OXYLOBIUM LANCEOLATUM Druce. Fabaceae.

A tall Australian shrub with whorls of lanceolate leaves 3 to 5 inches long and yellow flowers in dense terminal racemes 6 inches long.

75570. PITTOSPORUM PHILLYRAEOIDES DC. Pittosporaceae. Willow pittosporum.

An Australian desert tree, up to 20 feet high, with evergreen willowlike leaves and gracefully weeping branches. The small yellow flowers are followed by yellow fruits half an inch long, which are quite ornamental.

#### 75534 to 75574—Continued.

75571. SOPHORA TETRAPTERA J. Miller. Fabaceae. Fourwing sophora.

A handsome large shrub or small tree, native to New Zealand, with green pinnate leaves and large clusters of yellow flowers. The wood is hard and durable.

For previous introduction see No. 49029.

75572. SYNCARPIA GLOMULIFERA (J. E. Smith) Niedenzu, Myrtaceae.

A tree growing to a height of 200 feet, native to Australia. The wood is very durable and is resistant to dampness.

For previous introduction see No. 38731.

75573. TRISTANIA CONFERTA R. Br. Myrtaceae. Brisbane-box.

A tall tree, native to Australia, with smooth brown deciduous bark and dense foliage. The alternate leaves are 3 to 6 inches long, and the cymes contain from three to seven large flowers. The timber is very strong and is used in shipbuilding and for making wharves and bridges. The bark is used occasionally for tanning.

For previous introduction see No. 73867.

75574. TRISTANIA LAURINA R. Br. Myrtaceae.

A tall tree found in moist locations along streams in Australia. The young shoots and the under side of the alternate lanceolate leaves are silky pubescent. The small yellow flowers are in short clusters in the axils of the leaves.

#### 75575. Iris sp. Iridaceae.

From Spain. Seeds collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received April 21, 1927. Numbered in December, 1927.

For description see No. 75439.

#### 75576 to 75655.

From New South Wales, Australia. Seeds presented by Dr. G. P. Darnell-Smith, Director of the Botanic Garden at Sydney. Received November 2, 1927.

75576 to 75612. ACACIA spp. Mimosaceae.

75576. ACACIA ACCOLA Maiden and Betche. For previous introduction and description see No. 75534.

75577. ACACIA BANCROFTI Maiden.

An Australian shrub about 6 feet high, forming stools several feet in diameter. The obovate phyllodes are 5 to 7 inches long, and the bright-yellow flowers are borne in racemes.

75578. ACACIA BETCHEI Hort.

75579. ACACIA BRACHYBOTRYA Benth.

A handsome shrub, several feet in height, which is silvery white with a close silky pubescence. It bears a small number of axillary racemes of tomentose, many-flowered heads, and has very short leaves. Native to southeastern Australia.

For previous introduction see No. 48037. 75580. ACACIA BRACHYSTACHYA Benth.

A hoary, shrubby acacia, native to New South Wales, Australia. The phyllodes are linear and awl-shaped, while the flowers are borne in very short spikes.

75581. ACACIA BUXIFOLIA A. Cunn.

An Australian shrub 4 feet high, with angular branchlets and small, rather thick phyllodia. The short racemes, scarcely longer than the phyllodia, bear globular heads of flowers.

For previous introduction see No. 49890.

75582. ACACIA DECORA Reichenb.

A shrub with spatulate phyllodes 2 inches long and numerous racemes made up of globular heads of small flowers. Native to Queensland, Australia.

#### 75593. ACACIA DECURRENS Willd.

Green wattle.

A handsome Australian tree with lightgreen foliage and axillary racemes of brightyellow flowers.

For previous introduction see No. 74422.

75584. ACACIA DECURRENS LEICHHARDTII Benth.

This form of the green wattle differs from the common one in having smaller and narrower leaflets and spreading hairs. Native to Australia.

75585. Acacia decurrens pauciglandulosa F. Muell.

A form of the green wattle with fewer glands on the petioles and with softer pubescence than the usual form.

75588. ACACIA DIFFORMIS R. T. Baker.

A glabrous tree up to 30 feet high, native to New South Wales, Australia. The phyllodes are oblanceolate, coriaceous, and 3 to 8 inches long, and the small globular heads of flowers are in racemes.

75587. ACACIA DISCOLOR Willd.

For previous introduction and description see No. 75537.

75588. ACACIA DORATOXYLON A. Cunn.

A tree up to 20 feet high, native to New South Wales, Australia. The phyllodes are linear-lanceolate and falcate, and the flowers are in axillary cylindrical spikes.

75589. ACACIA FALCATA Willd.

A tree, 20 to 30 feet high, with few slender branches and small, yellow flowers in dainty spherical clusters on racemes borne in the axils of dark glossy green falcate leaves. The timber is hard, heavy, and tough.

For previous introduction see No. 48044.

75590. ACACIA FLEXIFOLIA A. Cunn.

A shrubby acacia, native to New South Wales, Australia, with terete branches, numerous linear phyllodes slightly bent near the base, and small globular heads of flowers on short stems.

75591. ACACIA GLAUCESCENS Willd.

An Australian tree up to 50 feet high, with flowers in axillary spikes 1 to 2 inches long. The branchlets and phyllodes are covered with a gray pubescence, giving an ashy hue.

75592. ACACIA HAKEOIDES A. Cunn.

A tall glabrous shrub, native to New South Wales, Australia, with narrow oblong phyllodes 5 inches long and short racemes of globular flower heads.

75593. ACACIA HOMALOPHYLLA A. Cunn.

A small Australian tree which grows on the saltbush flats and in the bleakest and most arid localities wherever frost is not severe. The hard heavy wood is used in the manufacture of tobacco pipes, in cabinetmaking, and for many other articles.

For previous introduction see No. 48045.

#### 75576 to 75655—Continued.

75594. ACACIA JUNIPERINA Willd.

Prickly wattle.

An Australian shrub, 8 to 12 feet high, with numerous gracefully drooping branches covered with short hairs, and beautiful clusters of flowers. The wood is white and tough.

For previous introduction see No. 48047. 75595. Acacia koa hawaiiensis Rock.

A valuable timber tree up to 60 feet high, native to the Hawaiian Islands. The falcate phyllodes are 5 inches long, and the flowers are borne in short racemes. The wood takes a high polish.

75596. ACACIA LEPTOCLADA A. Cunn.

A glabrous shrub with compound leaves made up of oblong coriaceous leaflets onetwelfth of an inch long and small flower heads in racemes longer than the leaves. Native to New South Wales, Australia.

75597. ACACIA LINEARIS Sims.

A straggly Australian shrub, sometimes 20 feet high, with phyllodes, slender as pine needles, 4 to 8 inches long, and loose interrupted spikes of flowers. The wood is used for furniture.

75598. ACACIA LINEATA A. Cunn.

A bushy shrub with pubescent terete branches, native to Australia. The linear phyllodes are less than an inch long, and the flowers are solitary.

75599. ACACIA MCNUTTIANA Hort.

75600. ACACIA MICROCARPA F. Muell.

A low Australian shrub, 2 to 5 feet high, the young shoots of which are covered with a golden pubescence. The linear-lanceolate, coriaceous phyllodes are falcate and less than 2 inches long. The flowers are borne in small heads in pairs on short stems.

75601. ACACIA OBTUSATA Sieb.

A tall glabrous shrub native to New South Wales. The oblong-linear phyllodes are 2 to 3 inches long, and the small flower heads are borne in dense racemes.

75602. ACACIA PENNINERVIS Sieb.

A tall Australian shrub or small tree which endures comparatively low temperatures. The phyllodes are narrow and sickle shaped, and the pale-yellow flowers are in short racemes. The bark is said to contain 18 per cent of tannic acid.

For previous introduction see No. 65718.

75603. ACACIA POLYBOTRYA FOLIOLOSA Benth.

A tall shrub, native to New South Wales, which has softly pubescent compound leaves and numerous small flower heads in racemes longer than the leaves, the terminal ones forming a panicle.

75604. ACACIA PULCHELLA R. Br.

A handsome shrub with slender branches armed with spines and feathery compound leaves. The flowers are in small heads on axillary peduncles. Native to Western Australia.

75605. ACACIA RUBIDA A. Cunn.

A tall glabrous shrub with angular branchlets, native to New South Wales. The falcate-lanceolate phyllodes are 3 inches long, and the small heads of flowers are in racemes shorter than the phyllodes.

#### 75606. ACACIA SALICINA Lindl.

A tall Australian shrub or small tree with pendulous branches and willowlike phyllodes up to 5 inches long. The flowers are in short racemes of two or three globular heads.

#### 75607. ACACIA SPECTABILIS A. Cunn

A tall shrub, native to Australia, with feathery compound leaves and golden-yellow-flower heads in axillary racemes longer than the leaves, the terminal racemes forming large panicles.

#### 75608. ACACIA SPECTABILIS STUARTII Benth.

A variety of this beautiful golden-flowered shrub with narrower leaflets than the usual form.

#### ACACIA SUAVEOLENS (J. E. Smith) 75609. Willd.

An Australian shrub up to 6 feet high, with only a few slender branches. The linear leaves are four times the length of the small axillary spikes which bear clusters of yellow flowers and red bracts.

For previous introduction see No. 48066.

#### 75610. ACACIA UNDULAEFOLIA A. Cunn.

shrub, native to New South Wales, which has numerous ovate phyllodes an inch in length and long pendulous flowering

#### 75611. ACACIA VESTITA Edwards.

A tall bushy shrub up to 20 feet high, native to New South Wales. The whole plant is softly pubescent, the phyllodes are obliquely elliptical and recurved falcate, while the small globular flower heads are in racemes longer than the phyllodes and form a terminal leafy panicle.

#### 75612. ACACIA VISCIDULA Benth.

A tall shrub up to 15 feet high, native to New South Wales. The terete branches are covered with a glossy viscid gum, the phylodes are linear and about 3 inches long, and the flower heads are solitary or in pairs in the

#### 75613 to 75655. EUCALYPTUS spp. Myrtaceae.

#### 75613. EUCALYPTUS AFFINIS Deane Maiden.

A tall tree up to 80 feet in height, native to New South Wales. The lanceolate-falcate leaves are 3 inches long, the flowers are in axillary clusters, and the fruits are ovate-truncate. The timber is valuable for ties and wheels.

#### 75614. EUCALYPTUS ANDREWSI Maiden.

This New South Wales eucalypt is a tall tree often 3 feet in diameter, with broadly lanceolate leaves 6 inches long and hemispheric fruits. The timber is used for fencing.

#### 75615. EUCALYPTUS BAILEYANA F. Muell

A tall tree, native to Queensland, with narrowly lanceolate-falcate, dull-green leaves. The flowers are in small axillary umbels and the fruits are semiovate. The wood is light gray, very tough, and suitable for tool gray, v

#### 75616. EUCALYPTUS BEHRIANA F. Muell.

A tall shrub or small tree, native to Australia, with thick smooth ovate to lanceolate leaves less than 3 inches long. The flowers are borne in umbels which are gathered into axillary or terminal panicles and are followed by ovoid-truncate fruits.

#### 75576 to 75655—Continued.

#### 75617 EUCALYPTUS BICOLOR A. Cunn.

A large shrub or tree up to 40 feet in height, with drooping branches, native to Australia. The persistent bark is rough and hard, and the lanceolate leaves are about 5 inches long. The timber is hard, tough, durable, and easily worked; suited for ties, piles, etc.

#### 75618. EUCALYPTUS BUPRESTIUM F. Muell.

A shrub up to 10 feet high, native to Western Australia. The narrowly lanceolate leaves are less than 3 inches long, and the umbels of 6 to 10 flowers are attractive to bees.

#### 75619. EUCALYPTUS CAMPHORA R. T. Baker.

A small tree up to 30 feet in height, native to New South Wales. The ovate to lanceolate leaves are 4 to 6 inches long and the flowers, in axillary clusters, are followed by small turbinate fruits. A valuable essential oil is produced by this variety.

#### 75620. EUCALYPTUS CONSIDENEANA Maiden.

A medium-sized tree, native to New South Wales, with lanceolate-falcate leaves 9 inches long by 2 inches wide and pyriform fruits .

75621. EUCALYPTUS CORYMBOSA J. E. Smith. medium-sized Australian tree with leathery lanceolate leaves and large corymbs of yellowish white fragrant flowers.

### 75622. EUCALYPTUS DAWSONI R. T. Baker.

A tall tree native to New South Wales, with smooth bark, oblong-lanceolate leaves 6 inches long and 3 inches wide, and flowers in large terminal corymbs. The timber is hard and coarse grained.

#### 75623. EUCAL VPTUS DEANEI Maiden.

A tall tree with smooth silvery bark, native to New South Wales. It closely resembles Eucalyptus saligna, from which it differs mostly in the broad leaves borne on the suckers

#### 75624. EUCALYPTUS DIVES Schauer.

A small tree up to 12 feet in height, native to New South Wales. The large cordate leaves are opposite, but tend to become alternate toward the tips of the branches. The flowers are borne in dense axillary

#### 75625. EUCALYPTUS GONIOCALYX F. Muell.

A rough-barked tree which attains a good A rough-barked tree which attains a good size, in some situations in Australia reaching a height of 300 feet and a diameter of 6 to 10 feet. The leaves of the adult tree are long and quite slender, the two sides being similarly colored, and the flowers, nearly stemless, are borne in small clusters on flattened stalks. This species grows well in the coast regions of California, but, so far as known, it has not been tested in the dry, hot valleys of the interior, or other similar situations. In Australia it is found at altitudes of 4,000 feet and is therefore a promising species on feet and is therefore a promising species on the mountains of the southwestern United States. The hard tough wood is used for general building purposes, and because of its durability in the ground it is useful for rail-road ties, posts, and other underground situations. situations

For previous introduction see No. 38716.

#### 75626. EUCALYPTUS EUGENIOIDES Sieber.

A tall tree, native to New South Wales. with fibrous bark, thick oblique leaves 2 to 6 inches long, flowers in axillary clusters of 6 to 12, and ovoid fruits one-fourth of an inch in diameter.

75627. EUCALYPTUS EXIMIA Schauer.
Mountain bloodwood.

A large tree, native to New South Wales, with scaly bark, falcate-lanceolate leaves, and urn-shaped fruits. The wood is soft and used only for fuel. It is a stately tree and very beautiful when in full bloom.

75628. EUCALYPTUS HAEMASTOMA J. E. Smith.

A large tree with a smooth mottled trunk, coriaceous, lanceolate-falcate leaves, small flowers in axillary clusters of small terminal panicies, and small globular or pear-shaped truits less than half an inch in diameter.

75629. EUCALYPTUS INCRASSATA DUMOSA Maiden.

For previous introduction and description see No. 75562.

75630. EUCALYPTUS LAEVOPINEA R. T. Baker.

A tall tree, native to New South Wales, with ovate leaves 3 inches long and axillary umbels of five to six flowers followed by hemispherical fruits. The timber is hard, close-grained, durable under ground and suitable for posts, rails, or general building purposes.

75631. EUCALYPTUS LEUCOXYLON MACRO-CARPA J. E. Brown.

A tall tree, native to South Australia, with rough bark on the trunk but soft and white on the branches. The thick corriaceous leaves are lanceelate-falcate, and 3 to 6 inches long. The white or pink flowers are in long-stalked clusters of two to five, and the oboyoid fruits are truncate.

75632. EUCALYPTUS LUEHMANNIANA F. Muell.

An Australian tree up to 20 feet high, with falcate-lanceolate, coriaceous leaves 3 to 6 inches long and 1 to 2 inches wide.

75633. EUCALYPTUS MACRORHYNCHA F Muell.

A tall Australian tree with fibrous bark and narrow falcate leaves 3 to 5 inches long, the lower ones broader and more coriaceous. The axillary peduncles bear six to eight flowers, and the flattened globose fruits have a broad prominent rim.

75634. EUCALYPTUS MACULOSA R. T. Baker.

An Australian tree, 40 to 60 feet high, with smooth bark, falcate narrowly lanceolate leaves 2 to 3 inches long, flowers in axillary clusters of 4 to 16, and turbinate fruits.

75635. EUCALYPTUS MAIDENI F. Muell.

A tall tree up to 200 feet high, native to New South Wales, with bluish gray bark and broadly lanceolate leaves chalk white underneath. The timber is used for posts and fencing and for rough lumber.

75636. EUCALYPTUS MARGINATA J. E. Smith.

An Australian shrub or small tree often char of branches for two-thirds of its height. The hard, durable wood is used for timber, piles, and railway ties. The tree will grow in a great variety of soils, but prefers moist, well-drained situations.

For previous introduction see No. 48991. 75637. EUCALYPTUS MEGACARPA F. Muell.

A Western Australian tree up to 100 feet high, with grayish white bark, thick lanceolate smooth leaves up to 6 inches in length, and thick hard depressed-globular fruits about an inch in diameter.

For previous introduction see No. 48992.

75576 to 75655—Continued.

75638. EUCALYPTUS MICROTHECA F. Muell.

A tree up to 80 feet high, found in the most arid extratropical as well as tropical inland regions of Australia. It grows best in ferruginous-gravelly soil, perfectly drained, and withstands unscorreded a frequent heat of 186° in central Australia, yet it was not affected by exceptionally severe frosts, 18°, in the south of France when many other species of Eucalyptus suffered. It is said to be one of the best trees for desert tracts. The wood is brown, sometimes very dark, hard, heavy, and elastic, and is used for piles, bridges, and railway sleepers. Because of its attractive markings it is also used for cabinetwork.

75639. EUCALYPTUS MORRISH R. T. Baker.

A shrub up to 15 feet high, native to New South Wales. The lanceolate leaves are 6 inches long and an inch wide; the flowers are in axillary clusters of three to seven; and the fruits are hemispherical with a pyramidal top.

75640. EUCALYPTUS OBLIQUA L'Her. Messmate gum.

An immense tree up to 200 feet high, native to Australia, which grows on postony ranges or on barren sandy soils if not subjected to prolonged drought. The wood is useful for railway sleepers, and, being practically noninfiammable, it is especially suitable for underground railways. It is also used in harbor construction.

For previous introduction see No. 54506.

75641. EUCALYPTUS OCCIDENTALIS Endl.

A spreading shrub or small tree, native to Western Australia, with lanceolate leaves up to 5 inches long, yellowish or orange flowers, and bell-shaped fruits with a spreading rim. The timber is hard, strong, durable, and is much used for posts, fence rails, etc.

For previous introduction see No. 48993.

75642. EUCALYPTUS PANICULATA J. E. Smith.

A tall or medium-sized Australian tree with deeply furrowed gray-brown bark. The lanceolate-acuminate leaves are 3 to 5 inches long, and the flowers are borne in panicles or in axillary clusters. The wood is pale and very hard; it is valuable for ties, fencing, and building purposes.

75643. EUCALYPTUS PARVIFOLIA Cambage.

A small tree up to 30 feet high, native to New South Wales, with leaves 3 inches long, and flowers in umbels of five to six, followed by truncate globular fruits. The wood is pale pink, but it is soft and brittle.

75644. EUCALYPTUS PAUCIFLORA Sieber. White gum.

An Australian tree 100 feet in height and about 4 feet in diameter. It grows well in swampy lowlands, and the timber is used for general building purposes.

For previous introduction see No. 61833. 75645. EUCALYPTUS PLATYPHYLLA F. Muell.

A handsome Australian tree with smooth white bark and light-green ovate leaves sometimes 10 inches long and broad but usually smaller. The flowers are in small axillary clusters, and the small obconical fruits have a thick prominent rim.

75846. EUCALYPTUS POPULIFOLIA Desf.
Poplar box.

A compact straight-growing Australian tree up to 50 feet high, with lustrous intensely green ovate leaves 4 inches long and panieles of small white flowers followed by very small fruits.

75647. EUCALYPTUS PROPINQUA Deane and Maiden.

A large tree 120 feet high and 5 feet in diameter, native to New South Wales. The lanceolate leaves are 5 inches long, and the timber is durable either in or out of the ground.

75648. EUCALYPTUS REDUNCA Schauer.

A shrub or tree which reaches a height of 120 feet in Western Australia where it is native. It furnishes a pale hard particularly tough and durable timber, much prized for building purposes, various implements, etc. The seasoned wood weighs about 70 pounds per cubic foot.

For previous introduction see No. 48998.

75649. EUCALYPTUS REGNANS F. Muell.
Giant gum.

An Australian tree up to 325 feet high. The trunk is very straight and whitish, and the narrow leaves, shining on both sides, are of rather thin texture. The wood is well adapted for shingles, planking, and general construction.

For previous introduction see No. 56567. 75650. EUCALYPTUS SALIGNA J. E. Smith.

A tall tree with silvery gray bark, native to New South Wales. The narrowly lanceolate leaves are 4 to 6 inches long, and the clusters of four to eight flowers are on short peduncles.

75651. EUCALYPTUS SANTALIFOLIA F. Muell.

A large shrub or small tree, native to South Australia. The thick rigid nearly straight leaves are less than 3 inches long, and the large flowers are in axillary clusters. The fruit is nearly globular, about half an inch broad, and has a prominent convex rim.

75652. EUCALYPTUS SCOPARIA Maiden.

A slender tree up to 40 feet high, native to New South Wales. The bark is smooth and white, and the lanceolate leaves are 6 inches long and half an inch wide.

75653. EUCALYPTUS SMITHII R. T. Baker.

A tall tree up to 150 feet high and 2 to 5 feet in diameter, native to New South Wales. The bark on old trees is deeply furrowed and is dark gray to blackish up to the branches.

75654. EUCALYPTUS TRACHYPHLOIA F. Muell.

A medium-sized tree, native to Queensland, with dark-gray rugged bark, falcate-lanceolate leaves 4 to 6 inches long, and terminal panicles of small flowers.

75655. EUCALYPTUS VIRGATA Sieber.

A large Australian tree which is straight stemmed, 150 feet in height, and has a diameter of 5 feet. It has done well in the cool climate of southern New Zealand. The wood is of excellent quality, strong and elastic, and is used for shipbuilding, fencing, and general building purposes. It burns well even when freshly cut.

For previous introduction see No. 56574.

**75656.** Trifolium repens rubescens Seringe. Fabaceae.

From Scotland. Plants obtained from T. A. Anderson, Director of the Midlothian Seed-Testing and Plant-Registration Station, Scotland Board of Agriculture, at East Craigs, Corstorphine, through A. J. Pleters, Bureau of Plant Industry. Received October 28, 1927.

A form of white clover which has rosy flowers.

75657. GLADIOLUS Sp. Iridaceae.

From Vicosa, Minas Geraes, Brazil. Bulbs presented by Prof. P. H. Rolfs, Director of the Escola Superior de Agricultura e Veterinaria. Received January 17, 1927. Numbered in December, 1927.

From near the Pico das Bandeiras, one of the peaks of the Serra de Caparao, at an altitude of about 2,000 meters. The flower is deep rose, with a darker throat, and though not so large as most ordinarily cultivated varieties, the fact of there being 10 flowers open at the same time on the one stalk seems rather unusual. In cultivation every spike had three spikelets, with a varying number of blooms on a main spike and on the spikelets, a feature which should seem to make it good for breeding purposes. The first flowers on the side spikes were opening when the earliest ones on the main spike were past.

For previous introduction see No. 69898.

#### 75658 to 75662.

From Richmond, Victoria, Australia. Seeds presented by F. H. Baker, through Harlan P. Kelsey, Salem, Mass. Received November 25, 1927.

75658. ACACIA CARDIOPHYLLA A. Cunn. Mimosaceae.

A small weeping Australian tree, said to be one of the most beautiful of the acacias.

For previous introduction see No. 56868.

75659. Acacia diffusa Lindl. Mimosaceae.

A yellow-flowered shrub native to Australia, with loosely scattered, sessile, linear phyllodia (leaflike stems) about an inch long.

For previous introduction see No. 46355.

75660. Acacia verniciflua A. Cunn. Mimosaceae.

A slender, much-branched shrub, native to New South Wales, with leathery, very narrow phylledia (leaflike stems) about 2 inches long, and deep-yellow flowers in small heads which are generally in pairs.

For previous introduction see No. 64806.

75861. CANDOLLEA GRAMINIFOLIA (Swartz) F. Muell. (Stylidium graminifolium Swartz). Candolleaceae.

A herbaceous perennial Australian plant with stiff grasslike leaves sometimes 6 inches long, growing in a tuft from the end of a very short stem, and scapes 6 to 18 inches long bearing simple racemes of pink flowers.

For previous introduction see No. 64807.

75662. STERCULIA DIVERSIFOLIA Don. Sterculiaceae. Black kurrajong.

A tall evergreen Australian tree with shining green leaves 2 to 6 inches long, which are variable in shape, being both deeply lobed and entire. The nearly ovoid fruits are up to 3 inches long, each containing about 20 seeds which, when ground, make an excellent substitute for coffee. The taproots of the young trees and the young roots of the old ones are used as food, and when boiled they have a flavor similar to that of turnips, but sweeter. Cattle and sheep are fond of the leaves and branches and have existed during long dry periods on scarcely anything else. A strong fiber, obtained from the bark, is used for making fishing nets.

For previous introduction see No. 70747.

#### 75663 to 75695.

From Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received November. 1927.

Nos. 75663 to 75671 were presented by the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido.

75663. ACANTHOPANAX DIVARICATUM (Sieb. and Zucc.) Seem. Araliaceae.

A large deciduous spreading shrub of vigorous habit, up to 10 feet high. It is native to the mountains of Kiuschiu, Japan, and is very closely related to Acanthopanax sessiliforum, cultivated in European gardens for its handsome, dark-green leaves and spherical heads of inky black fruits. Unlike the latter, this species has downy young shoots, and the lower surfaces of the leaves are also quite downy. It may prove hardy in all but the coldest parts of the United States.

For previous introduction see No. 58612.

75664 to 75667. ACER spp. Aceraceae. Maple. 75664. ACER GINNALA Maxim. Amur maple.

A small tree or large shrub, of bushy habit, with 3-lobed slightly heart-shaped leaves, and very fragrant white flowers in short panicles, appearing in May. This maple is closely allied to Acer tataricum, but differs markedly in shape of leaf. The foliage turns a beautiful red before falling, the species being one of the best for autumnal coloring. It is native to Manchuria and Japan.

For previous introduction see No. 69878.

A deciduous Japanese tree, 30 to 40 feet high, with a trunk 1½ feet in diameter, deeply 3-lobed leaves, yellow downy flowers in corymbs 2 to 3 inches long, and keys up to an inch long.

For previous introduction see No. 43811.
75666. ACER PICTUM MONO (Maxim.) Pax

A deciduous Chinese tree up to 60 feet high, with leaves somewhat heart-shaped.

For previous introduction see No. 72402.

75667. ACER PSEUDO-SIEBOLDIANUM Komar.

A small Manchurian tree with cordate leaves divided into 9 to 11 lanceolate-serrate

lobes and bearing purple flowers.

75668. Adonis amurensis Regel and Radde.
Ranunculaceae.

Variety yezoensis. A beautiful herbaceous perennial with broad yellow flowers and finely divided leaves. Native to Japan.

75669. ALNUS FRUTICOSA Rupr. Betulaceae. Alder.

A shrub or small tree up to 30 feet high, native to northeastern Asia. The leaves are evate with a cuneate base and are glabrous on the under side.

75670. Aralia Elata (Miquel) Seem. Araliaceae.

A small hardy Manchurian tree, resembling Aratia spinosa (Hercules-club) but more treelike, with few spines. It does not form many branches, but the large bipinnate leaves cast a good shade. The greenish white flowers are borne in large panicles, and the berries are dark red when ripe, producing a pleasing effect.

For previous introduction see No. 65486.

75671. BETULA JAPONICA Sieb. Betulaceac.
Japanese white birch.

A hardy ornamental Japanese tree up to 75 feet high, with broadly oval leaves, which is closely related to Betula pendula.

For previous introduction see No. 72407.

75663 to 75695—Continued.

75672. CELASTRUS ARTICULATUS Thunb. Celastraceae. Oriental bittersweet.

No. 21. Collected near Ishiyama, south of Sapporo, Hokkaido, October 12, 1927. A woody Japanese vine with obovate-serrate leaves 2 to 4 inches long. The orange-yellow fruits open to show the scarlet arils surrounding the seeds.

For previous introduction see No. 40568.

Nos. 75673 to 75695 were presented by the botanic garden, Hokkaido Imperial University, Sapporo, Hokkaido.

75673. EUONYMUS OXYPHYLLUS Miquel. Celastraceae.

A Japanese shrub or small tree with ovate pointed leaves and many-flowered cymes of dark-red ribbed fruits and bright red seeds.

75674. Fragaria inumae Makino. Rosaceae. Strawberry.

A wild strawberry native to the alpine slopes of Japan. It resembles *Fragaria vesca*, but has the flower stalks usually shorter than the leaves, the flowers with seven petals, and the achenes embedded in the receptacle.

75675. GERANIUM ERIANTHUM DC. Geraniaceae.

A herbaceous perennial plant with five to seven palmately lobed leaves and rose-purple flowers 1 to 2 inches across. Native to Kamchatka and northwestern North America.

75676. JUGLANS SIEBOLDIANA CORDIFORMIS (Maxim.) Mak. Juglandaceae. Flat walnut.

A form of the Japanese walnut which has heart-shaped, thin-shelled fruits with sharp edges and a groove in the middle of each flat side. The tree is often 70 feet tall.

75677. LILIUM CORDIFOLIUM Thunb. Liliaceae.

A Japanese lily, 3 to 4 feet high, with pendulous leaves 12 to 18 inches long and wide, and a raceme of 4 to 10 fragrant white flowers often 6 inches long. These seeds were received as Lilium glehni, which is said to differ very slightly from typical L. cordifolium.

75678. LILIUM DAURICUM Ker. Liliaceae. Candlestick lily.

A plant about 3 feet in height, with a smooth or slightly furrowed stem which is green or tinged with brown or purple. The 20 to 50 horizontal leaves are 3 to 5 inches long, and the flowers, one to four in a cluster and 3 to 5 inches across, are orange-red, slightly spotted with purplish black, and tinged with yellow in the center; the anthers are red.

For previous introduction see No. 69021.

75679. Magnolia kobus borealis Sargent. Magnoliaceae.

A pyramidal Japanese tree often 80 feet high. The obovate leaves are 6 inches long, and the pure creamy white flowers are 7 inches across. This is one of the hardiest of the Asiatic magnolias.

75680. PINUS KORAIENSIS Sieb. and Zucc. Pinaceae. Korean pine.

A 5-needle pine, up to 100 feet high, native to Korea and Japan. It produces valuable lumber and edible seeds and is also of ornamental value, being slow in growth and forming a dense broad pyramidal head with handsome foliage.

For previous introduction see No. 71125.

75681. PINUS PARVIFLORA Sieb. and Zucc. Pinaceae. Japanese white pine.

A dense pyramidal Japanese 5-needle pine often 100 feet high, with slender horizontal branches. The leaves are stiff and twisted, forming dense brushlike tutts at the ends of the branchlets. The cenes are reddish brown and very decorative.

75882. PRIMULA JAPONICA A. Gray. Frimula-Japanese primrose. Gray. Primula-

A herbaceous perennial with radical leaves and flower stalks up to 2 feet high, bearing several whorls of purple flowers. Native to Japan.

75683. PRIMULA SIEBOLDI E. Morr. Primulaceae. Primrose.

A Japanese primrose which is pubescent everywhere except the corolla and which has petioled, ovate leaves with numerous dentate lobes. The flower stem is longer than the leaves and bears a many-flowered umbel of white, rosy, or purple flowers nearly 2 inches across.

75684. PRUNUS MUME Sieb. and Zucc. Amyg-Japanese apricot.

The Japanese apricot is found throughout Japan, where it is both wild and cultivated. It ranges in height from 10 to 25 feet. Before the leaves appear in the spring the tree is covered with a profusion of attractive blossoms which are white in the wild forms, while in the cultivated varieties the color varies from white to pink, with occasional tinges of green or yellow. The fruits ripen in June, they are exceeding sour and are eaten only in the form of pickles.

75685. PRUNUS SERRULATA SACHALINENSIS (Schmidt) Makino (P. sargenti Rehder). Amygdalaceae. Sargent cherry.

A hardy vigorous Japanese wild cherry with single pink flowers. The tree is tall and very attractive.

For previous introduction see No. 73881.

75686. PTEROCARYA SORBIFOLIA Sieb. and Zucc. Juglandaceae.

A Japanese tree nearly 100 feet high, with large compound leaves and long racemes of winged fruits.

75687. QUERCUS 87. QUERCUS MONGOLICA GROSSES (Blume) Rehd. and Wils. Fagaceae. GROSSESERRATA

The principal timber oak of Japan, often 100 feet high, with large handsome leaves clustered at the ends of the branches.

75688. QUERCUS SERRATA Thunb. (Q. glanduli-fera Blume). Fagaceae. Oak.

A white oak up to 70 feet high, native to Japan, Chosen, and China. The oblong-ovate leaves are lustrous bright green and hold their color until late in autumn. It is usually shrubby under cultivation.

75689. RHAMNUS JAPONICA Maxim. Rham-Buckthorn.

A Japanese shrub up to 9 feet high, with glossy pale-green leaves 1 to 3 inches long, an abundance of greenish brown flowers produced during May in dense clusters at the ends of the short branches, and round fruits one-fourth of an inch in diameter.

For previous introduction see No. 43874.

75690. RHODODENDRON DAURICUM L. Ericaceae. Dahurian rhododendron.

An upright, deciduous shrub about 6 feet high, native to Japan and Chosen. The dark-green ovate leaves are aromatic, and the large rosy purple flowers appear from buds at the ends of the branchlets, usually before the leaves dayslop. develop.

For previous introduction see No. 65503.

75663 to 75695—Continued.

75691. Rosa MULTIFLORA Thunb. Rosaceae. Japanese rose.

A vigorous climbing Japanese rose with small white flowers in pyramidal corymbs, also small red fruits.

For previous introduction see No. 65477.

75692. SORBUS PSEUDOGRACILIS (C. Schneid:) Koehne. Malaceae.

A Japanese shrub which has compound leaves of 9 to 11 ovate-hanceolate, dark-green leaflets, clusters of small white flowers, and red

75693. STEWARTIA PSEUDO-CAMELLIA Maxim.

A handsome Japanese tree, 50 feet high, with erect branches and red bark. The thickish obovate-lanceolate leaves are bright green, and the large white flowers are borne in summer.

75694. TILIA MAXIMOWICZIANA Shiras. Tilia-Linden.

A tall tree, up to 100 feet high, native to Japan. The broadly ovate, sharp-pointed leaves are 6 inches long, and the small flowers are borne in clusters of 10 to 18.

75695. TRIGONOTIS GUILIELMI A. Gray. Boraginaceae.

An erect herbaceous perennial with ovate leaves and law racemes of white flowers less than an inch across. Native to Japan.

75696. Bougainvillea sp. Nyctaginaceae.

From Hope, Kingston, Jamaica, British West Indies. Plants presented by H. H. Cousins, Director of the Department of Agriculture. Received July 14, 1926. Numbered in December, 1927.

variety with pink bracts which are not such a clear color as those of the Rose of Catalina.

75697. ASTREBLA TRITICOIDES (Lindl.) F. Muell. Poaceae. Curly Mitchell grass.

From Sydney, New South Wales, Australia. Seeds presented by Arthur Yates & Co. Received December 1, 1927.

According to the Agricultural Gazette of New South Wales for March, 1922, curly Mitchell grass is characterized by wheatlike husks surrounding the seeds. The leaves are wide and succulent and the plants quickly respond to rain, a second growth of leaves being produced almost immediately. The best growth is made in summer and autumn, the period of growth from sowing until flowering being only a few weeks. This species is considered one of the best pasture grasses of Australia. tralia.

75698. CEIBA ACUMINATA (S. Wats.) Rose. Bombacaceae. Pochote.

From Alamos, Sonora, Mexico. Seeds obtained through L. H. Dewey, Bureau of Plant Industry. Received December 6, 1927.

This close relative of the kapok tree (Ceiba pentandra) is described by P. C. Standley (contributions from the United States National Herbarium, vol. 23, pt. 3) as a large or medium-sized tree with a greenish spiny trunk, compound leaves, and hard oblong fruits about 7 inches long which contain whitish down used for insulation, for stuffing pillows, mattresses, and life preservers, and for making candlewicks. It is native to western and southern Mexico.

For previous introduction see No. 73079.

#### 75699 to 75717.

From Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received in De-cember, 1927.

75699. ALNUS PENDULA Matsumura.: Betula-

Nos. 161 and 183. Collected on Otaniyama, Shino Mura, Minamikuwata Gun, Tamba, November 2, 1927. Hage shibari. A graceful Japanese shrub or small tree up to 25 feet high. The sharply serrate, dark green leaves are oblong with long points, and the small, conclike fruits are on slender pedicels in pendulous racemes.

75700 to 75711. CASTANEA CRENATA Sieb. and Zucc. Fagaceae. Japanese chestnut.

Locally grown varieties from Shino Mura, Minamikuwata Gun, Tamba, near Kyoto, November, 1927.

75700 to 75708. Cultivated varieties.

75700. Nos. 147, 148, 170. Ganne.

75701. Nos. 149, 150, 171. Ginyori, ginyose.

75702. Nos. 151, 152, 175. Shikanotsume.

75705. Nos. 153; 154, 169. Imakita.

75704. Nos. 155, 156, 172. Higam-guri.

75705. Nos. 157, 158, 174, 179. Chokoji.

75706. Nos. 159, 160, 173. Shimokatsugi.

75707. No. 163. A wild variety, used as a stock, from the chestnut orchard at Oji, Shino Mura.

708. No. 165. Shiba-guri. A wild varie collected on Otani Yama, Shino Mura. wild variety

Shiba-guri. From the orchard at Oji, Shino Mura.

75710. No. 167. Shiba-guri. A wild variety collected on Otani Yama, Shino Mura, at an altitude of about 600 feet.

75711. No. 168. A wild variety from the orchard at Oji, Shino Mura. Tree about 4 feet high, and stem half an inch in

Nos. 75712 to 75715 are seeds collected on Otani Yama, Shino Mura, Minamikuwata Gun, Tamba, November 2, 1927.

75712. EUONYMUS Sp. Celastraceae.

No. 180. A wild variety, with showy red fruits, which will perhaps be useful in an arboretum.

75713. ILEX sp. Aquifoliaceae. No. 181. Soyogo, sayago. A small evergreen

tree. 75714. JUNIPERUS RIGIDA Sieb. and Zucc. Needle juniper.

No. 162. Nezumisashi, muro. A Japanese juniper about 20 feet high, of elegant habit with the branches pendulous at the ends. The needlelike leaves are very slender and triangular in section. This tree thrives very well in authors. southern England.

For previous introduction see No. 57298.

75715. RHODODENDRON Sp. Ericaceae. Azalea. No. 182. A wild ornamental shrub.

75718. ILEX SERRATA Thunb. Aquifoliaceae. Fine-tooth holly.

No. 184. November 12, 1927. Umemodoki. A red-berried Japanese shrub up to 15 feet high, growing in the wonderful old garden at Golden Pavilion, Kyoto. It is said to be rare.

Lily. 75717. LILIUM sp. Liliaceae.

No. 164. A wild lily growing on Izuta Yama, Kochi Ken, Shikoku, November 10, 1927.

#### 75718 to 75720.

From Santa Monica, Calif. Seeds presented by Hugh Evans, through Peter Bisset, Federal Horticultural Board. Received December 9,

75718. CERATOSTIGMA WILLMOTTIANUM Stapf. Plumbaginaceae.

A half-woody perennial, 1 to 3 feet high, with angled purplish stems, bristly leaves, and cobalt-blue flowers, an inch wide, borne suc-cessively in a large head. Native to western

For previous introduction see No. 72983.

75719. Hibiscus diversifolius Jacq. Malvaceae.

A tall, hairy, rigidly upright shrubby peren-nial with prickly stems, variable foliage, and yellow flowers which have dark-red centers. Native to tropical Africa and the Pacific Islands.

For previous introduction see No. 66506.

75720. HIBISCUS HETEROPHYLLUS Vent. Mal-Vaceae

A tall Australian shrub with leaves varying from linear to elliptic and from entire to three lobed, which are 5 to 6 inches long and white beneath. The large axillary flowers, 3 to 4 inches long, are white with a crimson eye. This shrub blooms freely and is very showy.

75721 and 75722. LILIUM spp. Liliaceae Lily.

From Japan. Bulbs and seeds collected by R. K. Beattle, Bureau of Plant Industry. Received December 16, 1927.

Wild lilies growing among Sasa on a hillside in pine woods at Hirota, Shino Mura, Minamikuwata Gun, Tamba, November 15, 1927.

75721. LILIUM SD.

No. 185. Bulbs.

75722. LILIUM SD. No. 186. Seeds.

75723. DIOSCOREA SD. Dioscoreaceae. Yam.

From Ceylon. Tuber collected by David Fair-child, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedi-tion. Received March 26, 1926. Numbered in December, 1927.

No. 404. Agricultural Experiment Station, Jaffna, February 6, 1926. A variety said to be of good quality, which grows in sandy calcareous soil. It is called saddikarangi or elephant's foot because it produces only one large flat tuber with a few small ones attached to the side, the whole being about the size and shape of an elephant's foot.

75724. PSIDIUM GUAJAVA L. Mvrtaceae. Guava.

From New Smyrna, Fla. Cuttings presented by John Y. Detwiler, through R. A. Young, Bureau of Plant Industry. Received December 4, 1927.

A guava with thick flesh which is sweet with a air amount of acid and comparatively small seeds. The specimen of fruit received, said to be one-third to one-half the size as compared with the average, was 31% by 23% inches, yellow skinned and white fleshed, the flesh being nearly three-fourths of an inch thick.

75725 to 75733. LILIUM spp. Lilia-Lily. ceae.

From Tunbridge Wells, England. Bulbs pur-chased from R. Wallace & Co. Received in December, 1927.

#### 75725 to 75733—Continued.

75725. LILIUM BURBANKII Hort.

A free-flowering hybrid lily said to be derived from Lilium pardalinum and L. paryii. It produces from 25 to 30 deliciously fragrant flowers on a very graceful spike. The flowers are spotted with chocolate and flushed with crimson on the tips of the petals.

75726. LILIUM DAVIDI Duch.

A strong-growing Chinese lily about 5 feet high, with graceful narrow foliage and deep cinnabar-red tiger lilylike flowers.

75727. LILIUM FARRERI TUTTIII.

A beautiful species found in Yunnan, China, by the well-known botanical explorer, Reginald Farrer, and frequently referred to in his writings as "the marble Martagon lily," It is a slender and graceful lily, 2 to 3 feet high, bearing, on long pedicels, up to five recurved white flowers which are slightly spotted with purple on the interior. This lily possesses a strong constitution and increases fast by means of numerous small bulbs forming at the base of the stem.

For previous introduction see No. 61747.

75728. LILIUM MARTAGON L. Martagon lily

Variety album. A rare lily producing spikes 4 to 5 feet high, and 20 to 30 pure white flowers. 75729. LILIUM OCHRACEUM Franch.

A rare and beautiful lily from Upper Burma, not hardy except in the most favored districts; it is an admirable cool greenhouse plant. This is a very variable species, producing flowers which range in color from deep golden to pale yellow, stained in varying degrees with a deep wine purple. The petals recurve as in Lilium martagon, but this feature is also inconstant.

75730. LILIUM POMPONIUM L.

A graceful Martagon lily from northern Italy, 3 feet high, with slender grassy foliage and up to 10 turban-shaped, brilliant-scarlet flowers. This is a rare lily in cultivation.

75731. LILIUM PYRENAICUM Gouan.

Yellow Turkscap. A very early variety with enormous bulbs. The strongly scented yellow flowers are heavily spotted with black.

For previous introduction see No. 69926.

75732 and 75733. LILIUM DAURICUM Ker.
Candlestick lily.

75732. Golden fleece. A strong-growing variety 2½ feet high, producing large umbellate heads of clear golden-yellow flowers with a touch of scarlet at the tips of the petals.

75733. Splendidum. A new variety, 2 to 2½ feet high, producing large umbellate heads of brilliant vermilion flowers shading to a rich coppery crimson. The flowers are unspotted or nearly so, and the points of the petals are slightly reflexed.

75734. LILIUM MONADELPHUM Bieb. Liliaceae. Great Caucasian lily.

From the Caucasus, Russia. Bulbs purchased from J. W. Pincus, of the Amtorg Trading Corporation, New York, N. Y. Received December 14, 1927.

Variety szovitzianum. A variety with reddish brown anthers and lemon-yellow flowers which are larger and more thickly dotted than the typical species.

For previous introduction see No. 72611.

#### 75735 to 75749.

From Leningrad, Russia. Seeds presented by Prof. V. V. Talanoff, vice director of the Institute of Applied Botany, through H. N. Vinall, Bureau of Plant Industry. Received December . 10. 1927.

Locally grown varieties from the Western Siberian Experiment Station at Omsk.

75735. AGROPYRON SIBIRICUM (Willd.) Beauv. Poaceae. Grass.

No. 1342. An upright cespitose perennial grass, up to 16 inches high, with linear leaves. Native to southern Russia and the Caucasus.

For previous introduction see No. 63802.

75736 to 75738. ELYMUS spp. Poaceae. Grass.

75736. ELYMUS DAHURICUS Turcz.

No. 1767. A tall perennial ryegrass, with stout erect stems, native to dry stony places in Russia and Siberia.

For previous introduction see No. 64625.

75737. ELYMUS JUNCEUS Fisch.

No. 1800. An erect perennial grass, with terminal spikes resembling rye; native to Russia.

75738. ELYMUS SIBIRICUS L.

No. 1310. A tall grass with heavy overhanging heads,

For previous introduction see No. 57685.

75739. FESTUCA ELATIOR L. Poaceae.

No. 1582. Mead

75740 to 75747. MEDICAGO FALCATA L. Fabaceae. Yellow-flowered alfalfa.

75740. No. 5198. 75744. No. 5038.

75741. No. 4022. 75745. No. 1694/18.

75742. No. 4020. 75746. No. 40/27.

75743. No. 1694/46. 75747. No. 63/82.

75748. MEDICAGO SATIVA L. Fabaceae. Alfalfa.

No. 1450. From Bokhara.

75749. ONOBRYCHIS VULGARIS Hill (O. viciae-folia Scop.) Fabaceae. Sainfoin.

No. 1517.

#### 75750 and 75751.

From Chicago, Ill. Plants presented by August Koch, superintendent of Union Park. Received December 30, 1927.

75750. CARYOTA PLUMOSA Hort. Phoenicaceae. Fishtail palm.

From seeds collected in Brazil. A horticultural name applied to a form of fishtail palm which is now about a foot high, with leaves resembling those of Caryota mitis and C. urens.

75751. FICUS PLATYPHYLLA Delile. Moraceae.

From seeds collected on the Gold Coast, West Africa. A handsome shade tree, 80 feet in height and 8 feet in diameter, with dark-green stiff leathery leaves, about 10 inches long, arranged in picturesque groupings on the branches. This tree is said to be the source of Kano rubber. The latex is used as birdlime, and tannin is obtained from the bark. A fabric is made from the bast by some of the natives of central Africa.

For previous introduction see No. 73118.

75752. CRYPTOSTEGIA sp. Asclepiadaceae.

From Madagascar. Seeds presented through Paul Dean Thompson, American vice consul at Tananarive. Received December 21, 1927.

A wild cryptostegia which may be of value as a rubber plant.

75753. PAUROTIS sp. Phoenicaceae.

From Georgetown, British Guiana. Seeds presented by the British Guiana Botanic Gardens, through Dr. B. E. Dahlgren, of the Field Museum of Natural History, Chicago, Ill. Received January 18, 1923. Numbered in December 1807. ber, 1927.

A small palm suitable for growing as a house plant.

75754. CASTANEA MOLLISSIMA Blume. Hairy chestnut. Fagaceae.

From Nanking, China. Seeds purchased from Prof J. H. Reisner, College of Agriculture and Forestry of the University of Nanking. Re-ceived December 31, 1927.

In the endeavor to relieve the situation caused by the rapid disappearance of our native chestnut, due to the ravages of the blight fungus, the Chinese hairy chestnut is being introduced into this country in a considerable quantity. The size and quality of the nuts compare rather favorably with that of our native chestnut, although neither the size of the tree nor the tannin content measure up to those of our native species. our native species.

For previous introduction see No. 74157.

#### 75755 and 75756.

From Lisbon, Portugal. Cuttings presented by Dr. Ruy Palhinha, of the University of Lisbon. Received December 23, 1927.

75755. ROSA ODORATA GIGANTEA X Sp.

Belle Portugaise. A large and beautiful rose of very delicate coloring, rosy pearl tinted with salmon. The very long buds are at times 10 centimeters in length, especially when produced at the ends of vigorous shoots. The fully opened flower measures 15 to 16 centimeters in diameter. When grown in a mild climate, Belle Portugaise reaches a great size and is literally covered with its hurs flowers. It seems to have inherited in its its huge flowers. It seems to have inherited in its characters the great floriferousness of its mother, Souvenir de Leoine Viennot: and furthermore, it is capable of producing fertile seeds, and therefore, may be used in hybridization.

For previous introduction see No. 29729.

75756. Rosa odorata gigantea × sp.

Etoile du Portugal. A hybrid of Rosa odorata gigantea and Reine Marie Henriette.

For previous introduction see No. 29730.

#### 75757 to 75765. ZEA MAYS L. Poaceae. Corn.

From India and Java. Seeds collected by F. G. Krauss, of the University of Hawaii. Received November 30, 1927.

75757 to 75759. From the experiment station at Pusa, India, August, 1927

75757. No. 1. An early maturing variety.

75758. No. 2. A midseason variety.

75759. No. 3. A late-maturing variety.

75760 and 75761. From Buitenzorg, Java.

75760. Gele oost.

75761. Gele menado.

75757 to 75765—Continued.

75762. A Himalayan variety collected in Dar-jiling, India, at an altitude of 7,000 feet. August, 1927.

75763 to 75765. From Buitenzorg, Java.

75763. Saipancorn.

75764. Witte midden.

75765. Witte St. Croix.

75766. Xanthosoma sp. Araceae. Yautia.

From Akkra, Gold Coast, West Africa. Seeds collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, with the Allison V. Armour expedition. Received April 19, 1927. Numbered in December, 1927.

No. 1217. Coco yam. Obtained in the market, February 27, 1927. A dasheen relative with unusually large tubers.

75767 to 75774. LILIUM spp. Liliaceae.

From Tunbridge Wells, England. Bulbs purchased from R. Wallace & Co. Received in December, 1927.

75767. LILIUM BURBANKII Hort.

For previous introduction and description see No. 75725.

75768. Lilium Chalcedonicum L. Chalcedonian lily.

Variety maculatum. A strong-growing, rare form superior to the ordinary type. The large broad-petaled flowers are dark scarlet, spotted with black at the base of the petals.

75769 to 75772. LILIUM DAURICUM Ker.
Candlestick lily.

75769. Golden fleece. For previous introduc-tion and description see No. 75732.

75770. Mahogany. A very fine distinct new hybrid with large flowers of deep crimson

71. Splendidum. For previous introduction and description see No. 75733. 75771. Splendidum.

75772. Vermilion brilliant. A very showy hybrid producing large heads of the most intense vermilion-scarlet flowers of fine form and substance, with broad massive netals.

75773. LILIUM PARDALINUM Kellogg. .
Leopard lily.

Variety Johnsoni. A tall lily from British Columbia, producing bright-orange flowers spotted with dark crimson.

75774. LILIUM POMPONIUM L.

For previous introduction and description see No. 75731.

#### 75775 to 75779.

From Buenos Aires, Argentina. Seeds presented by Prof. Lorenzo R. Parodi, of the University of Buenos Aires. Received December 13, 1927.

75775. CHLORIS BEYRICHIANA Kunth. Poaceae.

A low perennial grass with short leaves and erect flower stems a foot high. Native to Brazil and Argentina.

75776. CHLORIS POLYDACTYLA (L.) Swartz. Grass. Poaceae.

A grass which grows about 1½ feet high with seed stalks running up to 3 feet. It seeds pro-fusely and is said to be good as a pasture grass when young and appears to be suitable for hay.

#### 75775 to 75779—Continued.

75777. GOUINIA LATIFOLIA Vasey. Poaceae.

A tall perennial grass up to 6 feet high, with leaves an inch wide and a foot long, and loosely branching panicles. Native to Argentina.

75778. PHALARIS ANGUSTA Nees. Poaceae.

A coarse annual grass 4 feet high with narrow leaves and timothylike spikes. Native to Argentina.

75779. TRICHLORIS PLURIFLORA FOURN. Poaceae. Grass.

A perennial grass 2 to 4 feet high with leaves half an inch wide and a foot long. Native to Mexico.

75780. CITRUS GRANDIS (L.) Osbeck (C. decumana Murr.). Rutaceae.

Grapefruit.

From Manila, Philippine Islands. Bud wood presented by S. Youngberg, Director of the Bureau of Agriculture. Received November 4, 1927.

A local variety.

### 75781. Rubus sp. Rosaceae.

From Manila, Philippine Islands. Seeds presented by S. Youngberg, Director of the Bureau of Agriculture. Received December 14, 1927.

A variety grown at Baguis, Mount Province, Luzon, Philippine Islands.

75782. Syringa oblata dilatata (Nakai) Rehder. Oleaceae. Lilac.

From Chosen, Japan. Seeds presented by Dr. M. Tozawa, Director of the Forestry Experiment Station at Keljby. Received January 4, 1927. Numbered in December, 1927.

A hardy compact shrub, native to northeastern Asia, about 12 feet high, with heart-shaped, bright-green leaves and dense panicles of pale-lilac flowers.

For previous introduction see No. 66259.

#### 75783 to 75787.

From northern Nigeria, West Africa. Seeds presented by A. G. Beattle, London, Ontario, Canada. Received December 12, 1927.

Locally grown varieties.

75783. PENNISETUM GLAUCUM (L.) R. Br. (P. typhoideum Rich.). Poaceae.

Pearl millet.

Bulrush millet. The local name is coero.

75784 to 75787. SORGHUM VULGARE Pers. Poaceae. Sorghum.

75784. Massakwa.

75785. A chi duka.

75786. Bai fillata.

75787. Giwar kumba.

#### 75788 to 75843.

From Japan. Seeds collected by R. K. Beattie, Bureau of Plant Industry. Received December, 1927.

75788 to 75825. CASTANEA CRENATA Sieb. and Zucc. Fagaceae. Japanese chestnut.

75788. No. 193. A wild variety growing on Abura Yama, at Otani, Shino Mura, Minamikuwata Gun, Tamba. The tree is a 15-year-old sprout and is 15 feet high.

#### 75788 to 75843—Continued.

75789 to 75802, Wild trees growing on Otani Yama, Shino Mura, Minamikuwata Gun, Tamba.

75789. No. 194. 75796. No. 201. 75790. No. 195. 75797. No. 202. 75791. No. 196. 75798. No. 203. 75792. No. 197. 75799. No. 204. 75798. No. 198. 75800, No. 205. 75794. No. 199. 75801. No. 206. 75795. No. 200. 75802. No. 207. 75803. No. 207. 75803. No. 207. 75803. No. 207.

75803. Nos. 208-210, 236, 244, 245, 262, 264-266. Wild trees or rather bushes growing on Izuta Yama, Kochi Ken, Shikoku Island. They are said to produce three crops a year. These nuts are from the first crop which ripens in July.

75804. Nos. 211-213. Wild trees, 20 to 30 years old, growing in the university forest in Ashidani, Kamiyugawa, Yakata Mura, Arita Gun, Wakayama Ken.

75805. No. 214. Shibaguri. A wild tree said to be large, growing in the Kamikamo Experimental Forest, Kyoto Imperial University.

75806 to 75808. Cultivated trees growing at Ineyama, Ayabe-cho.

75806. No. 216. Ichiemon.

75807. No. 217. Toyotama-wase.

75808. No. 218. An unknown variety.

75809. No. 219. A wild tree growing at Ushigakubi, Kurama Yama, Kyoto Prefecture.

75810 to 75812. Wild trees growing at Kurama Yama, Kyoto Prefecture.

75810. No. 220. 75812. No. 222. 75811. No. 221.

75813. No. 223. A wild tree growing at Kurama Mura, Kurama, Momoiware.

75814 to 75816. Wild trees growing at Kurama Yama, Kyoto Prefecture.

75814. No. 224. 75816. No. 226.

75815. No. 225.

75817. No. 227. A wild tree growing at Otani Yama, Shino Mura, Minamikuwata Gun, Tamba.

75818. Nos. 228, 229. Wild trees growing at Ishikari, Ishiyama Province.

75819. Nos. 230 and 239. An unnamed cultivated variety at Imai, Kagami Mura, Tosa Gun, Kochi Ken, Shikuko Island.

75820. Nos. 231 and 240. *Chobe.* Cultivated trees growing at Hirota, Shino Mura, Minamikuwata Gun, Tamba. This variety was exhibited at a fair in Kyoto and received third prize.

75821 to 75824. Cultivated trees growing at Ori, Kagami Mura, Tosa Gun, Kochi Ken, Shikoku Island.

75821. Nos. 232 and 242. A native variety.75822. Nos. 233 and 243. Naro-quri. This variety is native to Shikoku.

75823. Nos. 234, 241, 261. Nakayama-guri.
The burs fall from the tree before opening.

75824. No. 235. Togenashi-guri. The burs are spineless.

75825. Nos. 237, 238. These seeds are from the same source as No. 208 [No. 75803], but the nuts are smaller and are said to come from smaller trees.

#### 75826. LILIUM sp. Liliaceae.

T.ile

No. 263. From Shizuoka Ken, Tagata Gun, Kitakano Mura, Kashiwakubo, November 25, 1927. A wild variety bearing white flowers spotted with brown.

75827 to 75843. RHODODENDRON spp. Ericaceae. Azalea.

Locally grown varieties collected in November, 1927.

75827. RHODODENDRON Sp.

No. 188. A wild variety growing near the Buddhist Temple, Hirota, Shino Mura, Minamikuwata Gun, Tamba.

75828. RHODODENDRON SD.

No. 189. A cultivated yellow-flowered variety from the garden at the Buddhist Temple, Hirota, Shino Mura, Minamikuwata Gun, Tamba. It is said to be rare.

75829. RHODODENDRON SD.

No. 190. A cultivated variety growing at Hachiman Shrine, Mori, Shino Mura, Minamikuwata Gun, Tamba. It is said to have red flowers.

75830. RHODODENDRON Sp.

No. 191. A cultivated variety growing in the garden at the Buddhist Temple, Hirota, Shino Mura, Minamikuwata Gun, Tamba. It is said to have red flowers.

75831. RHODODENDRON Sp.

No. 192. A wild, pink-flowered variety, said to be rare, growing near the Buddhist Temple, Hirota, Shino Mura, Minamikuwata Gun, Tamba.

75832. RHODODENDRON Sp.

No. 248. A wild variety growing near the Buddhist Temple, Hirota, Shino Mura, Minamikuwata Gun, Tamba. It is said to have white flowers.

Nos. 75833 to 75843 are cultivated varieties from the garden of the San-O-ji Buddhist Temple, Sogabe Mura, near Kameoka.

75833. RHODODENDRON SD.

No. 249. A variety said to have red flowers.

#### 75788 to 75843—Continued.

75834. RHODODENDRON Sp.

No. 250.

75835. RHODODENDRON SD.

No. 251.

75836. RHODODENDRON SD.

No. 252. A variety said to have white flowers.

75837. RHODODENDRON Sp.

No. 253. A variety said to have pink flowers with white spots.

75838. RHODODENDRON Sp.

No. 254. A variety said to have red flowers.

75839. RHODODENDRON SD.

No. 255. A variety said to have pink flowers.

75840. RHODODENDRON SD.

No. 256. A variety said to have large pink and white flowers.

75841. RHODODENDRON Sp.

No. 257. A variety said to have very large pink flowers and to be the finest in the collection at this garden.

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No. 258. An azalea said to be an early variety with red flowers.

75848 RHODODENDRON SD.

No. 259. An azalea said to be a wild variety with very large flowers. It has been cultivated in this garden.

75844. THEA SASANQUA (Thunb.) Nois. (Camellia sasanqua Thunb.). Theaceae.

Nos. 246 and 247. Collected near Hachiman Shrine, Hirota, Shino Mura, Minamikuwata Gun, Tamba, November 15, 1927. A large, wide-spreading ornamental shrub or small tree common throughout the warmer parts of Japan. It is said to be a relative of the white camellia. The branches are very slender, and in the wild plant the flowers are always white. It is a popular garden shrub, and, under cultivation, the forms with pink and rose-colored flowers are common. The seeds contain an inferior sort of oil used by the Japanese women for dressing their hair.

For previous introduction see No. 57088.

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