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A GARDEN FLORA

A GARDEN FLORA

TREES AND FLOWERS GROWN IN THE
GARDENS AT NYMANS. BY L. MESSEL.
1890-1915. WITH ILLUSTRATIONS BY
ALFRED PARSONS. FOREWORD BY
WILLIAM ROBINSON. NOTES BY
MURIEL MESSEL ⌘ ⌘ ⌘ ⌘

LONDON

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1918

TO THE MEMORY OF
MY FATHER

Q1K73.N9M584

Walden - Wey. Schall-

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Walden - Wey. Schall-

Hoheria populnea, *Embothrium coccineum* and *Cestrum elegans Newelli* in the open air.

Trees of the pine tribe were tried in the usual pinetum way and with a good result as one might look for on the forest ridge of Sussex, and many summer leafing trees in the grounds. He had wide interests, and the succulents of South Africa and other lands found in him a friend and led to an original experiment. A sandstone rock, covered by a portable, span-roof house with open sides was built, provision being made for its complete removal during the warmest six months of the year. On this *Opuntias*, *Agaves*, *Echinopsis*, *Crassulas*, *Puyas*, *Kleinias* and many like plants thrived and flowered well.

Such bold doings cannot always succeed in the face of our climate ; and we may be grateful to the man who faces them even if but few among many tried are not found to be happy in our islands, their varied shores and hills offering as they do such a chance of growing beautiful trees and shrubs from other lands.

W. ROBINSON.

GRAVETYE MANOR.

PREFACE

The garden is undoubtedly a favoured spot, otherwise not one half the things would grow which figure in this list. Miss Jekyll once said that Nymans belonged to the Forest Ridge of Sussex, which apparently is the cause for success.

We do not get the frosts here that our neighbours, only a mile or so away, suffer from.

The top part of the garden is nearly 500 feet high; the house itself is about 450 feet; the ground slopes gently from the north and rather more steeply upon the east and west. The soil is loam with sandstone below, and in the woods below the house there is clay.

The Pinetum was planted in a large semicircle, facing south-east; sheltering it from the north and south-west winds there is a belt of spruce trees, which were planted now nearly thirty years ago.

The garden which I describe as the Top Garden (for want of a better name) is on the west side of the same spruce trees. Here are to be found the shrub houses and the cactus garden. The reason for these houses is to have a place where the plants which are doubtfully hardy can be grown. Generally when young plants are put out of doors, which are of special interest, one at least is kept in the houses, so that if a more than usually severe winter carries off the outdoor plants one remains to "fight another day," and is not lost to the collection. Only in very severe weather is the stove lighted in the shrub houses to keep off the hardest frost, and often the temperature falls to 35 degrees. Nevertheless such plants as *Alberta magna*, *Ochna multiflora*, *Rhododendron Nuttalli* and many others live and flower well here.

The cactus garden is between the two houses; it has a light span roof for protection against winter rains, but in the summer it is quite open and the sides are open all the year round.

Between the top drive and the house is the wall garden,

where the more delicate plants grow. It was originally an orchard, and the apple trees still remain, and serve as props for the climbing plants.

Besides the wall which surrounds three sides there is additional protection to be found against winds from the north and east in thick holly hedges and a belt of trees, and a slight protection from south and west winds by more trees.

Here the cornels grow and the *Styrax*, *Escallonias*, *Acacias*, *Eucryphia cordifolia* and many another beautiful shrub.

There are some fine trees on the lawn which were planted some seventy years ago.

The heath garden lies beyond the lawn.; it has only been planted some fifteen years. The heaths have done splendidly, especially *Erica australis* which forms huge banks of pink bells. There is no protection for the heaths from south and west winds and only the slightest protection from east winds.

The rock garden is close by, but rock plants were never among the features of the garden.

In all sorts of odd corners are to be found Camellias, Himalayan rhododendrons and other plants which cannot stand the buffeting of March winds or the rigour of hard winters; so they have been tucked away with stalwart rhododendrons and laurels to keep guard and protect them.

The Arboretum was planted at the foot of the east slope of the park, adjoining the woods. The soil here is heavier than in the garden.

A new piece of ground was recently added, where some of the trees which were introduced from China by Mr. Wilson have been planted. *Æsculus indica* is here also.

Maples and a collection of various oaks fill a large part of the Arboretum, but various cornels, some eucalyptus trees and a cork oak are also growing here.

These are just the facts, which I hope may be a key to the list of the plants in the garden.

Originally, the list was meant to be a record of the plants grown at Nymans, but it was suggested to me that any notes on personal experience would be of interest, and possibly a help, to other people. Therefore I have added some notes about the plants which to me are of especial interest, in the hope that the knowledge gained in making this collection may not be entirely lost.

I have finished what another had begun.

My most sincere thanks are due to all those who have so largely helped in the arranging of this list. They have, I know, done it "in memoriam." Mr. Alfred Parsons has contributed ten illustrations of some of the most cherished shrubs.

Mr. Robinson has written the introduction; Mr. Bean has not only corrected the list, but he has named numbers of plants which were wrongly labelled; Mr. John Nix, too, helped greatly in the arrangement of the list, and James Comber, who planted the trees and shrubs, and has cared for them through more than twenty summers and winters, has supplied points of interest which otherwise would have remained unknown.

I think that the garden may fitly be described as the triumph of hope. It was always full of experiments, it gave endless pleasure, and if you walk through it, you will see the careful thought that was bestowed on each plant.

MURIEL MESSEL.

NYMANS, 1917.

EXPLANATION

* Half-hardy.

** Doubtful.

† Greenhouse.

†† Stove.

All else are considered hardy

A GARDEN FLORA

A

ABELIA. Caprifoliaceæ.

**A. chinensis*. China.

Syn. *A. rupestris* and *A. uniflora*.

**A. floribunda*. Mexico.

This grew well for two years upon a north-west wall, but was killed by a severe frost. A cutting, which is now a vigorous young plant, is being grown on a south wall.

A. serrata. Japan.

A. triflora. N.W. Himalaya.

The hardiest of Abelias: cuttings strike easily. The plant here is now some 12 feet high, and has flowered annually for some years. The pale pink flowers are succeeded by hairy bracts. It is pruned lightly, as soon as the beauty of both flowers and bracts is over.

ABERIA. Bixaceæ.

†*A. caffra*. Kie Apple, S. Africa.

ABIES. Silver Firs, Coniferæ.

A. amabilis. White Fir. British Columbia, Oregon and Washington.

Height 21 feet. The tree is likely to make a good specimen, but has not yet produced cones. Planted 1899. Pinctum.

A. balsamea. Balsam Fir. E. North America.

„ var. *hudsonia*.

Height 2 feet. Planted 1898.

A. brachyphylla. Nikko Fir. Japan.

Height 29 feet. Has borne cones. Planted 1898.

A. bracteata. Santa Lucia Fir. S. California.

Height 15 feet. Here this has not been damaged by spring frosts. Cones have not yet formed. Planted 1898.

A. cephalonica. Greek Fir. Mountains of Greece.

Height 23 feet. Planted 1898.

„ var. **Apollinis.**

A. concolor. Colorado Fir. W. North America.

„ var. **erecta.**

„ var. **violacea.**

Height 21 feet. A pyramidal-shaped tree. The leaves are glaucous. Planted 1898.

„ var. **Wallezi.**

A grafted tree.

****A. faxoniana.** W. China.

A. firma. Japanese Fir. Japan.

Height 24 feet. Planted 1898.

A. grandis. Giant Fir. W. North America.

Height 41 feet. Planted 1898.

A. lasiocarpa. Rocky Mountain Fir. British Columbia.

Syn. **A. subalpina.**

Height 44 feet. Planted 1898.

A. lasiocarpa, var. arizonica.

A small tree. Planted 1913.

„ var. **cœrulea.**

„ var. **Nymans.**

Height 27 feet. Differing from the type only in the length and curve of the leaves. Planted 1898.

A. lowiana. Low's Silver Fir. Oregon and Sierra Nevada.

A. magnifica. Red Fir. California and Oregon.

Height 30 feet. A compact tree: the trunk is oddly thick in proportion to the branches, which do not extend more than 4 feet from the main stem. Planted 1898.

A. nobilis. Noble Fir. California, Oregon and Washington.

Height 38 feet. A thriving specimen, which has borne a few cones. Planted 1898.

A. nobilis, var. glauca.

A. nordmanniana. Caucasian Fir. Asia Minor, Caucasus and Greece.

- A. numidica.** Algerian Fir. Algeria.
- A. pectinata.** Common Silver Fir. Central and S. Europe.
- A. Pindrow.** Himalayan Fir. Himalaya.
Height 20 feet. Planted 1898.
- A. Pinsapo.** Spanish Fir. S. Spain.
Height 20 feet. Though growing naturally on limestone, *A. Pinsapo* has succeeded well in the light loam of the pinetum. Planted 1898.
„ var. *argentea*.
„ var. *glauca*.
Height 24 feet. Planted 1898.
„ var. *variegata*.
- **A. recurvata.** W. China.
- *A. religiosa.** Mexican Fir. Mexico.
Height 7 feet. Was planted out of doors 1914.
It has stood two winters in the open, with slight protection, and is in excellent condition; but it is undoubtedly very tender.
- A. sachalinensis.** Saghalien Fir. N. Japan, Saghalien, etc.
Height 19 feet. Planted 1898.
- A. sibirica.** Siberian Fir. N.E. Russia.
- A. Veitchii.** Veitch's Silver Fir. Japan.
Height 31 feet. A singularly beautiful tree, which has borne cones on the topmost branches. Planted 1898.
- **A. webbiana.** Himalayan Fir. Himalaya.
Seedlings, some six years old and three feet high.

ABUTILON. Malvaceæ.

- *A. megapotamicum.** Brazil.
Syn. *A. vexillarium*.
A beautiful Brazilian climber. The flowers are rather larger than the variegated form, and the plant grows more freely; otherwise there is little difference between them.
- *A. megapotamicum, var. variegatum.**
Covers fully 22 feet on a south wall, and, if protected by mats in severe weather, will flower from May to November. Curiously enough, in a greenhouse the plant suffers from attacks of insect

pests, from which it seems quite immune in the open air.

***A. vitifolium.** Chile.

Is practically hardy, growing in an open position. Plants now five years old have stood 20 degrees of frost. They are never long-lived. The colour of the pale, lavender-blue flowers is the most delicate in the garden.

†A. Hybrid, vars.—

Boule de Neige.

La Triomphe.

ACACIA. Leguminosæ.

†A. armata. Australia.

***A. baileyana.** Australia.

The grey-blue, feathered leaves are more compact and more vivid in colour than those of *A. dealbata*, and form a very effective background for the racemes of yellow flowers. Two specimens were planted out in April, 1914, by way of experiment. They are now about 13 feet high, and have stood two winters in the open successfully. Both plants flowered in February, 1916, and were unharmed by 10 degrees of frost, but 19 degrees in late March withered the flowers, and spoilt much of the beauty of the leaves.

***A. dealbata.** The Silver Wattle. Australia.

Height 37 feet. *Acacia dealbata*, despite many vicissitudes, has flowered freely during the past mild winters. Several times it has been cut down by frost to the level of the protecting wall, but its vitality is wonderful, and young shoots soon replace the withered branches.

***A. decurrens.** Australia.

†A. Drummondii. Australia.

†A. juniperina. Australia.

†A. pycnantha. Australia.

***A. riceana.** Tasmania.

A shrub, 9 feet high, which has grown in a sheltered position for two years. The spring frosts of 1916 cut the branches back a little, but it had flowered and grown well previously.

†A. verticillata. Australia.

ACÆNA. New Zealand Burr. **Rosaceæ.**

- A. Buchanani.** New Zealand.
A. microphylla. New Zealand.
A. pulchella. New Holland.

ACANTHOLIMON. **Plumbaginaceæ.**

- A. glumaceum.** Prickly Thrift. Asia Minor.
A. venustum. Asia Minor.

This little rock plant is more difficult to grow than the better known species *A. glumaceum*. It is, however, more beautiful; the flowers being larger and of a better pink, and the foliage silver, rather than green. Here it thrives in the sandy soil of the Rock Garden. We divide the single root stem into four quarters, and then plant it, with pieces of sandstone, set below the level of the soil, wedged tightly against its roots.

ACANTHOPANAX. **Araliaceæ.**

- A. ricinifolium.** Japan.
 Syn. *Aralia Maximowiczii*.
A. senticosum. China.
 Syn. *Eleutherococcus senticosus*.

A hardy shrub from China, with stems thickly surrounded by small thorns.

- A. sessiliflorum.** China.
A. Simoni. China.
 Syn. *Eleutherococcus Simoni*.

A more graceful and compact shrub than *A. senticosum*, with smaller leaves, of a grey tone. The flowers are like an aralia, and are followed by black berries. The branches have large thorns like a rose.

- A. spinosum.** Japan.
 Syn. *Aralia pentaphylla*.

ACANTHUS. Bear's Breech, Bear's Foot. **Acanthaceæ.**

- †**A. arborescens.** Central Africa.

Sent from La Mortola, and propagated by layers. The original plant lived for five years in the Shrub House and, when about 10 feet high, was planted

out of doors. It was killed by the severe weather which followed its removal. The leaves are jagged at the edge and prickly, and have a white mark, not unlike the Milk Thistle. It has not hitherto flowered at Nymans. An interesting reference to the effect of a large hedge of this beautiful pink *Acanthus* in flower occurs in Sir Harry Johnston's book, *The Uganda Protectorate*.

A. Caroli-Alexandri. Greece.

A. mollis. Common Bear's Breech. S. Europe.

„ **var. latifolius.**

ACER. Maple. **Sapindaceæ.**

A. capillipes. Japan.

Height 9 feet. Planted in a permanent position in the Lower Arboretum 1913.

A. circinatum. Vine Maple. W. North America.

Height 19 feet. Planted in the Arboretum 1913.

A. cissifolium. Japan.

Height 15 feet. The crowning head of branches measures 16 feet through. Planted in the Lower Arboretum 1902.

A. dasycarpum. Silver Maple. E. North America.

Height 18 feet. Planted in the Arboretum 1912.

A. Davidii. David's Maple. Japan.

Height 20 feet. Planted in the Lower Arboretum 1910. The bark of this Maple is particularly attractive.

A. distylum. Japan.

Height 18 feet. Planted in the Arboretum 1909.

A. Ginnala. China, Manchuria and Japan.

Syn. **A. tataricum**, var. **Ginnala**.

A. lætum, var. **rubrum.** Daghestan.

Height 22 feet. Planted in the Arboretum 1902.

A. Miyabei. Miyabe's Maple. Japan.

Height 15 feet. Planted in the Arboretum 1902.

A. monspessulanum. Montpellier Maple. S. Europe and N. Africa.

A. Negundo, var. **aureum.**

Height 11 feet. A small tree, in poor condition planted in the Arboretum 1902.

- A. Negundo**, var. **californicum**. United States.
Height 17 feet. Planted in the Arboretum 1902.
- A. Negundo**, var. **variegatum**.
- A. nikoense**. Nikko Maple. Japan.
Height 15 feet. Spread of branches 15 feet.
Planted in the Lower Arboretum 1902.
- A. palmatum**. Japanese Maple. Japan.
 „ var. **aureum**.
 „ var. **laciniatum**.
 „ var. **laciniatum purpureum**.
 „ var. **linearilobum**.
 „ var. **palmatifidum**.
 „ var. **roseo-marginatum**.
 „ var. **rufescens**.
 „ var. **septemlobum**.
 „ var. **variegatum**.
- A. pennsylvanicum**. Snake-bark Maple. E. North America.
- A. platanoides**. Norway Maple. Europe.
 „ var. **rubrum**. Garden origin.
Height 34 feet. Planted in the Arboretum 1902.
- A. platanoides**, var. **Schwedleri**.
Height 39 feet. Several trees, planted in the Arboretum 1902.
- A. Pseudo-platanus**. Sycamore. Europe.
 „ var. **albo-variegatum**.
 „ var. **atropurpureum**.
Height 38 feet. Planted in the Arboretum 1902.
- A. Pseudo-platanus**, var. **Leopoldii**.
Height 34 feet. Planted at the same time.
- A. saccharum**. Sugar Maple. E. North America.
Height 34 feet. Planted in the Lower Arboretum 1901.

ACHILLEA. Compositæ.

- A. ageratifolia**. Greece.
Syn. **Anthemis Aizoon**.
- A. Eupatorium**. Orient.
- A. Millefolium**, var. **roseum**. Northern Hemisphere.

A. Ptarmica, var. fl. pl. Double Sneezewort. Northern Hemisphere.

A. umbellata. Greece.

ACIPHYLLA. Spear Grass. **Umbelliferae**.

***A. Colensoi**. Wild Spaniard. New Zealand.

ACONITUM. **Ranunculaceae**.

A. hemsleyanum. China.

A. Napellus. Monk's-hood. Northern Hemisphere.

„ var. **bicolor**.

A. Wilsoni. China.

ACTINIDIA. **Ternstroemiaceae**.

A. arguta. Amur Region, China and Japan.

A. chinensis. China and Japan.

It is a little uncertain when this Chinese climber flowered first in Europe. Early in the spring of 1909 we sent flowers from a plant in a greenhouse to *The Gardeners Chronicle* and also to Kew. Mr. Woodall also sent flowers from the Riviera, and a notice of this *Actinidia* appeared in *The Gardeners Chronicle* of July 31st, 1909. From enquiries made by the editor at the time, it seems that *A. chinensis* had already flowered at Coombe Wood, although the spray from Nymans was the first to come to his notice. Since planting out of doors it has not flowered; probably because the wood has never ripened.

A. Kolomikta. China, Manchuria and Japan.

A. volubilis. Japan.

ADENOCARPUS. **Leguminosae**.

***A. decorticans**. Spain.

ADLANTUM. **Filices**.

†**A. cuneatum**. Tropical America.

† „ var. **gracillimum**.

***A. pedatum**. N. Hindustan, United States, etc.

†**A. tenerum**, var.

ÆGLE. Rutaceæ.

A. sepiaria. China and Japan.

Syn. **Citrus trifoliata.**

Is perfectly hardy here, and flowers freely in a sheltered position. The fruit is like a small tangerine, and remains among the thorny branchlets till late in winter. Here, so far, seed has never formed in the fruit. Planted 1901.

ÆSCULUS. Sapindaceæ.

(Including **PAVIA.**)

Æ. californica. Californian Buckeye. California.

Æ. carnea. Red Horse Chestnut. Garden origin.

„ var. **Briotii.**

By far the most handsome of the type.

Æ. chinensis. Chinese Horse Chestnut. N. China.

Height 4 feet. Planted in the Arboretum 1914.

Æ. Hippocastanum. Horse Chestnut. Mountains of S.E. Europe.

Æ. indica. Indian Horse Chestnut. N.W. Himalaya.

Height 9 feet. Planted on a sunny, but fairly moist slope, facing east, 1914.

Æ. octandra. Sweet Buckeye. S.E. United States.

Syn. **Æ. flava.**

Æ. parviflora. Shrubby Pavia. S.E. United States.

A shapely bush, measuring 10 feet high, and the lower branches having a spread of 18 feet. In the Wall Garden.

Æ. plantierensis (**Hippocastanum** × **carnea**). Garden origin.

Height 15 feet. It has not flowered yet. Planted in the Arboretum about 1910.

Æ. turbinata. Japanese Horse Chestnut. China and Japan.

Height 20 feet. The leaves and stalks measure 23 inches in length. Planted in the Lower Arboretum 1905.

ÆTHIONEMA. Cruciferæ.

Æ. grandiflorum. Persia.

AGAPANTHUS. Liliaceæ.

**A. umbellatus*. Cape of Good Hope.

* ,, var. *maximus*.

* ,, var. *minor*.

AGAPETES. Vacciniaceæ.

†*A. buxifolia*. Himalaya.

Has never succeeded well in the open here.

AGATHEA. Compositæ.

†*A. cœlestis*. Cape of Good Hope.

AGATHIS. Coniferæ.

†*A. australis*. Kauri Pine. New Zealand.

Syn. *Dammara australis*.

AGAVE. Amaryllidaceæ.

**A. americana*. Tropical America.

Has been planted in an experimental garden for succulents. So far, all the plants have succeeded admirably. It was my father's idea that wet is a far greater enemy than cold to these plants, which are constructed to withstand the longest desert drought. He, therefore, made a succulent garden with stonework and rocky subsoil, to ensure ample drainage. In the winter a light, span roof keeps away the heavy rain; otherwise the plants are exposed throughout the year.

**A. ingens*, var. *picta*. Mexico and Tropical America.

Syn. *A. americana*, var. *picta*.

AGERATUM. Compositæ.

†*A. mexicanum*. Tropics.

AGONIS. Myrtaceæ.

***A. marginata*. Australia.

AILANTHUS. Simarubiaceæ.

A. Giraldii. China.

A. glandulosa. Tree of Heaven. N. China.

A. vilmoriniana. W. China.

AJUGA. Bugle. **Labiatae.**

A. reptans, var. **atropurpurea**. Europe.

AKEBIA. **Berberidaceae.**

A. lobata. China and Japan.

A delightful climber, which, though growing happily over some apple trees and flowering abundantly, for some years produced no seed. Mr. Bean suggested fertilising the flowers, which resulted in the formation of the handsome fruit.

A. quinata. China, Corea and Japan.

„ var. **fl. rosea**.

ALBERTA. **Rubiaceae.**

†**A. magna**. Natal.

Nicholson describes *A. magna* as a stove plant. Here it has grown for seven years in a cool greenhouse, the temperature of which has often been as low as 35 degrees. It has flowered regularly in the winter for some years, and the seed which it has formed has proved fertile. Both flowers and bracts are brilliant red.

ALBIZZIA. **Leguminosae.**

***A. Julibrizzin**. Pink Siris. Levant.

ALCHEMILLA. Lady's Mantle. **Rosaceae.**

A. vulgaris. Great Sanicle. Northern Hemisphere.

ALLIUM. **Liliaceae.**

A. neapolitanum. Daffodil Garlic. S. Europe.

A. sp.

ALNUS. Alder. **Betulaceae.**

A. firma. Japan.

A. glutinosa. Common Alder. Europe, Britain, W. Asia and N. Africa.

A. glutinosa, var. **laciniata**.

A. incana (Grey Alder), var. **incisa**. Europe, Caucasus and E. North America.

Height 27 feet. Planted in the Arboretum 1902.

ALOE. Liliaceæ.

†*A. arborescens*. S. Africa.

†*A. variegata*. S. Africa.

ALPINIA. Zingiberaceæ.

†*A. speciosa*. China and Japan.

Syn. *A. nutans*.

ALSTROEMERIA. Herb Lily. Amaryllidaceæ.

A. aurantiaca. Chile.

ALYSSUM. Cruciferæ. *A. saxatile*. Rock Madwort. Europe.**AMELANCHIER.** Rosaceæ.

A. asiatica. Chinese Service-berry. China and Japan.

A. canadensis, var. *sanguinea*. N. America.

A. vulgaris. Snowy Mespilus. Central and S. Europe.

Height 16 feet ; head of branches 18 feet through.
Planted in the Arboretum 1902.

AMICIA. Leguminosæ.

**A. Zygomerris*. Mexico.

A useful shrub of the Pea family, which flowers in the autumn. We cut it down each winter, covering the roots with ashes, and in the summer it forms a bush 6 feet high. The plant was given us by Mr. Lynch of the Botanic Gardens, Cambridge.

AMORPHA. Leguminosæ.

A. canescens. Lead Plant. E. North America.

AMPELOPSIS. See **VITIS**.**AMPHIRAPHIS.** See **MICROGLOSSA**.**AMYGDALUS.** See **PRUNUS**.**ANCHUSA.** Alkanet. Boraginaceæ.

A. italica. Dropmore variety. Mediterranean region.

ANDROMEDA. Ericaceæ.

A. polifolia, var. *major*. Bog Rosemary. N. Europe, Britain.

See also **CASSANDRA**, **CASSIOPE**, **LEUCOTHOË**,
PIERIS, **OXYDENDRON** and **ZENOBIA**.

ANDROSACE. Primulaceæ.

A. Chumbyi (*sarmentosa* × *villosa*).

A. lanuginosa. Himalaya.

A. sarmentosa. Himalaya.

ANEMONE. Ranunculaceæ.

A. apennina. Europe.

***A. coronaria**. Poppy Anemone. S. Europe.

A. Hepatica. Common Hepatica. Europe.

A. hortensis, var. *fulgens*. Pau Anemone. S. Europe.

„ var. *fl. pl.*

A. japonica. Japanese Windflower. Japan.

A. nemorosa. Wood Anemone. Britain.

„ var. *Alleni*.

„ var. *fl. pl.*

„ var. *robinsoniana*.

ANISACANTHUS. Acanthaceæ.

A. Wrightii. N. America.

ANOMATHECA. See LAPEYROUSIA.**ANOPTERUS. Saxifragaceæ.**

†**A. glandulosus**. Tasmania.

Hardy in Cornwall; *A. glandulosus* only flowers with us in a cool house. In April it is covered with flowers like giant Lilies of the Valley.

ANTENNARIA. Cat's-ear. Compositæ.

A. dioica. Mountain Cudweed. Britain.

ANTHEMIS. See ACHILLEA.

ANTHERICUM. Liliaceæ.

A. Liliago. St. Bernard's Lily. S. Europe.

ANTHURIUM. Tail Flower. Aroideæ.

††**A. scherzerianum.** Costa Rica and Guatemala.

ANTIRRHINUM. Scrophulariaceæ.

***A. Asarina.** Italy.

APHELEXIS. Compositæ.

†**A. rosea.** S. Africa, probably.

APIOS. Leguminosæ.

A. tuberosa. Wild Bean. N. America.

APLOPAPPUS. Compositæ.

A. ericoides. California.

AQUILEGIA. Columbine. Ranunculaceæ.

A. chrysantha. New Mexico.

Many hybrid varieties.

ARABIS. Rock Cress. Cruciferæ.

A. albida. Caucasus.

„ var. fl. pl.

ARALIA. Araliaceæ. -

A. chinensis. Chinese Angelica Tree. China, Manchuria and Japan.

A. chinensis, var. pyramidalis.

A. cordata. Japan.

Syn. **A. edulis.**

This perfectly hardy Aralia makes a very handsome group on the edge of a sandstone quarry

See also **ACANTHOPANAX.**

ARAUCARIA. Coniferæ.

A. imbricata. Chile Pine, Monkey Puzzle.

Height 56 feet. This species is represented by

two large trees, bearing staminate flowers. A seed bearing tree died in 1908, possibly when the roots reached the sandstone rock. Young plants were raised from the seed, and one is now growing near the Quarry.

ARBUTUS. Ericaceæ.

A. Andrachne. Levant.

**A. furiens*. Chile.

Syn. *Pernettya ciliaris*.

A little shrub, which is now 4 feet high, has been out of doors for three years. It flowers and fruits and seems quite hardy; though it will not grow in the open at Kew.

A. hybrida (*Andrachne* × *Unedo*). Greece.

A. Menziesii. Madroña. California.

Syn. *A. procera*.

A young plant purchased in 1902 is 14 feet high and quite hardy. Seed has ripened upon it.

A. Unedo. Strawberry Tree. S. Europe, Ireland.

„ var. *rubra*.

Syn. *A. Croomii*.

ARCTOSTAPHYLOS. Alpine Bearberry. Ericaceæ.

**A. pungens*. California.

A pretty plant, with pink flowers and glaucous leaves, suited to a cool shrub house: we have not found it succeed in the open.

A. Uva-Ursi. Red Bearberry. Northern Hemisphere, Britain.

ARCTOTIS. Compositæ.

**A. aspera*. S. Africa.

**A. aurantiaca*. S. Africa.

**A. regalis*. S. Africa.

ARDISIA. Myrsinæ.

**A. japonica*. China and Japan.

An evergreen shrub, which grows freely in partial shade. Unfortunately, as the growth is made late

in the season, the young shoots are often touched by frost.

ARENARIA. Caryophyllaceæ.

A. balearica. Balearic Isles.

A. grandiflora. Europe.

A. montana. Spain.

ARISTEA. Irideæ.

†*A. Eckloni.* S. Africa.

ARISTOLOCHIA. Birthwort. Aristolochiaceæ.

††*A. elegans.* Brazil.

A. Siph. Dutchman's Pipe. Eastern United States.

A. tomentosa. S.E. United States.

ARISTOTELIA. Tiliaceæ.

A. Macqui, var. *variegata.* Chile.

Height 18 feet. The shrubs in the Wall Garden have been planted now some years, and are growing most freely. So far, they have never been damaged by cold, and the variegated foliage, tinged with red is quite effective. The flowers make no show.

ARMERIA. Thrift, Sea Pink. Plumbaginaceæ.

A. juncea. S. France.

A. maritima. Cliff Rose, Cushion Pink. Europe, Britain.

A. maritima, var. *alba.*

„ var. *lauchiana.*

ARTEMISIA. Wormwood. Compositæ.

A. Abrotanum. Southernwood, Lad's Love. S. Europe.

A. lactiflora. China.

A. sericea. Siberia.

ARTHROPODIUM. Liliaceæ.

†*A. cirrhatum.* New Zealand.

ARUM LILY. See **RICHARDIA.**

ARUNDINARIA. Bamboo. Gramineæ.

A. falcata. Himalaya.

Syn. **Bambusa gracilis.**

Height 13 feet. Several plants have grown for some years now, in a sheltered place among trees.

A. japonica. Métaké. Japan.

Syn. **Bambusa Métaké.**

A. nitida. Central and W. China.

A. palmata. Japan.

Syn. **A. Kumasasa.**

ASIMINA. Anonaceæ.

A. triloba. Papaw. S.E. United States.

ASPARAGUS. Liliaceæ.

†**A. crispus.** S. Africa.

Syn. **A. decumbens.**

†**A. plumosus,** var. **nanus.** S. Africa.

†**A. Sprengeri.** Natal.

ASPERULA. Rubiaceæ.

A. Gussoni. Sicily.

Syn. **A. nitida.**

A. odorata. Sweet Woodruff. Britain.

A. suberosa. Greece.

ASPIDISTRA. Liliaceæ.

***A. lurida.** China.

* „ var. **varigata.**

ASPLENIUM. Filices.

†**A. bulbiferum.** Tropical Asia, Mascarene Islands, Australia, New Zealand, etc.

†**A. Nidus.** Bird's-nest Fern. Tropics, Old World.

ASTER. Starwort. Compositæ.

A. acris. S. Europe.

A. alpinus. Blue Mountain Daisy. Europe, Northern Asia, etc.

A. alpinus, var. **albus**.

A. Amellus. Italian Starwort. Europe, etc.
Many hybrid varieties.

ASTILBE. Saxifragaceæ.

A. japonica. Japan.

„ var. **Queen Alexandra**.

ASTRAGALUS. Goat's Thorn. Leguminosæ.

A. massiliensis. Gum Tragacanth. Mediterranean region.
Syn. **A. Tragacantha**.

ASYSTASIA. Acanthaceæ.

†**A. bella**. Natal.

ATHROTAXIS. Coniferæ.

A. cupressoides. Tasmania.

A. laxifolia. Tasmania.

Syn. **A. doniana**.

ATRIPLEX. Orache. Chenopodiaceæ.

A. Halimus. Tree Purslane. S. Europe.

„ var. **congestifolia**.

AUBRIETIA. Cruciferæ.

A. deltoidea. S. Europe.

„ var. **aurea**.

„ var. **Campbellii**.

„ var. **Dr. Mules**.

„ var. **Fire King**.

„ var. **Lavender**.

„ var. **Leichtlinii**.

„ var. **Lloydii**.

„ var. **olympica**.

„ var. **Pritchard's A.1.**

„ var. **taurica**.

AZALEA. See **RHODODENDRON**.

AZARA. Bixaceæ.

***A. Gilliesii.** Chile.

A. microphylla. Chile.

Height 18 feet. Is growing in a sheltered and somewhat dry position, where it is quite hardy. In March and April the flowers, which are thickly set on the under side of the branches, scent the air all around.

B**BACCHARIS. Tree Groundsel. Compositæ.**

B. patagonica. Patagonian Groundsel Tree. Magellanic region.

BAMBUSA. See ARUNDINARIA and PHYLLOSTACHYS.**BANKSIA. Proteaceæ.**

†**B. marcescens.** Australia.

BAPTISIA. Leguminosæ.

B. alba. N. America.

B. australis. N. America.

B. exaltata. N. America.

BAROSMA. Rutaceæ.

†**B. ericoides.** S. Africa.

BAUERA. Saxifragaceæ.

†**B. rubioides.** Australia.

BAUHINIA. Leguminosæ.

†**B. yunnanensis.** China.

BEAUMONTIA. Apocynaceæ.

††**B. grandiflora.** India.

BEGONIA. Begoniaceæ.†**B. fuchsioides.** Mexico.†**B. semperflorens.** Brazil.**BENTHAMIA.** See **CORNUS.****BERBERIDOPSIS.** Bixaceæ.**B. corallina.** Coral Plant. Chile.

Has succeeded particularly well upon a north-east wall, of which it covers 28 feet. It is unprotected in winter. We have found that, though at first difficult to establish, when once it has got a good start, it is perfectly hardy. Though it flowers well for several months in the year seed never forms.

BERBERIS. Berberidaceæ.**B. Aquifolium.** Oregon Grape. W. North America.
Syn. **Mahonia Aquifolium.****B. brevipaniculata.** W. China.**B. buxifolia,** var. **nana.** Chile.**B. Darwinii.** Darwin's Barberry. Chile.**B. Fortunei.** Fortune's Barberry. China.***B. Fremontii.** Fremont's Barberry. S.W. United States.

Height 6 feet. Many Barberries grow particularly well here, but not *B. Fremontii*. It has been out of doors some years, but though it started life in good health looks in rather a poor state now. It is undoubtedly tender.

B. Gagnepainii. China (Szechuen).**B. hakeoides.** Chile.Syn. **B. congestiflora,** var. **hakeoides.****B. japonica.** Japanese Mahonia. China.Syn. **Mahonia japonica.****B. japonica,** var. **Bealei.****B. nervosa.** W. North America.**B. pruinosa.** Yunnan.**B. stenophylla** (*empetrifolia* × *Darwinii*). Garden origin.**B. Thunbergii.** Thunberg's Barberry. China and Japan.
„ var. **minor.**

B. virescens. Sikkim Himalaya.

B. vulgaris. Common Barberry. Europe, Britain, N. Africa and Temperate Asia.

B. vulgaris, var. **globularis**.

„ var. **ilicifolia**.

„ var. **lycioides**.

B. wallichiana. Himalaya and China.

„ var. **latifolia**.

Syn. **B. Knightii**.

BERCHEMIA. Rhamnaceæ.

B. racemosa. Japan.

BESCHORNERIA. Amaryllidaceæ.

***B. superba.**

***B. yuccoides.** Mexico.

Is grown with the succulents described on page 10.
The plant flowers annually, and the spikes, with their red bracts, are magnificent.

BETULA. Birch. Betulaceæ.

B. alnoides, var. **pyrifolia.** W. China.

Height 15 feet. Planted in the Lower Arboretum about 1910.

B. japonica, var. **mandschurica.** W. China.

B. nigra. River Birch. N. America.

B. papyrifera. Paper Birch. N. America.

Height 14 feet. Planted in the Lower Arboretum 1910.

B. utilis. Himalayan Birch. Himalaya.

Syn. **B. Bhojpattra.**

Height 9 feet. Planted in the Lower Arboretum 1911.

B. verrucosa. Silver Birch. Europe, Britain, N. Asia.

Syn. **B. alba.**

BIGELOWIA. Rayless Golden Rod. Compositæ.

B. Douglasii. W. North America.

„ var. **tortifolia.**

BIGNONIA. Bignoniaceæ.

†**B. capreolata.** Cross Vine. S.E. United States.

†**B. speciosa.** Brazil.

See also **TECOMA.**

BILLARDIERA. Pittosporaceæ.

B. longiflora. Tasmania.

With its beautiful violet fruit has grown upon a south wall for some years. We find it quite hardy, and plants have been raised from seed which formed in 1912.

BLETIA. Orchidaceæ.

B. hyacinthina. China.

BOCCONIA. Plume Poppy. Papaveraceæ.

B. cordata. China and Japan.

BOMAREA. Amaryllidaceæ.

†**B. patacensis.** Ecuador, Colombia.

BORAGO. Borage. Boraginaceæ.

B. laxiflora. Corsica.

BORONIA. Rutaceæ.

†**B. elatior.** Australia.

†**B. heterophylla.** Australia.

†**B. megastigma.** Australia.

BORYA. See **FORESTIERA.****BOUGAINVILLÆA.** Nyctagineæ.

†**B. glabra.** Brazil.

†**B. spectabilis.** Brazil.

Syn. **B. brasiliensis.**

BOUVARDIA. Rubiaceæ.

†Many garden varieties.

BOWKERIA. Scrophulariaceæ.***B. gerrardiana.** Natal.

The *Bowkeria triphylla* of gardens, or *B. gerrardiana*, as it should be correctly named, cannot be said to be fully established here yet; and it is doubtful if it will prove hardy. So far, it has been in the open for two years, with protection in winter.

BRACHYCHITON. See **STERCULIA.****BRACHYGLOTTIS.** Compositæ.**†B. repanda.** New Zealand.

This is not hardy, but, as an experiment, one shrub was planted in the garden. The leaves, which are silver on the under sides, have been browned by frost, even though the plant was protected. In the Shrub House there is a larger shrub, 10 feet high and wide, which flowers well, and the graceful racemes of flowers are succeeded by the equally pretty pappus. We have noticed that only those shoots flower which have attained a certain degree of strength.

BRACHYSEMA. Leguminosæ.**†B. acuminatum.** Australia.

Nicholson, in his *Dictionary of Gardening*, mentions that *B. acuminatum* is rare in cultivation. We have tried it twice upon a south wall, but it has failed in the open. In the Shrub House it does exceedingly well.

BRODLÆA. Missouri Hyacinth. **Liliacæ.****B. uniflora.** Buenos Ayres.

Syn. **Triteleia uniflora.**

BROUSSONETIA. Moracææ.**B. Kazinoki.** Corea and Japan.

A small plant, which lacks the vigour of *B. papyrifera*, and from which it differs both in young wood and foliage.

B. papyrifera. Paper Mulberry. China.

Height 16 feet, 6 inches.

B. papyrifera, var. *laciniata*.

Syn. **B. dissecta**.

BROWALLIA. Solanaceæ.

†**B. speciosa**. Colombia.

BRUCKENTHALIA. Ericaceæ.

B. spiculifolia. Asia Minor and E. Europe.

BRUNSVIGIA. Amaryllidaceæ.

†**B. Josephinæ**. S. Africa.

BRYANTHUS. See **PHYLLODOCE**.

BUDDLEIA. Loganiaceæ.

B. albiflora. Central China.

***B. Colvillei**. Sikkim.

This, the most handsome of all Buddleias, is, unfortunately, not hardy at Nymans. With protection it grows out of doors and flowers well; but our large plant was killed by severe frost some seven years ago. Young plants are at present doing well in open positions.

B. globosa. Chile and Peru.

Height 17 feet, diameter 23 feet. The Wall Garden.

B. hemsleyana. China.

B. lindleyana. China and Japan.

†**B. madagascariensis**. Madagascar.

B. nivea. China.

B. variabilis. Central and W. China.

„ var. **veitchiana**. W. China.

BUPHTHALMUM. Oxeye. Compositæ.

B. speciosum. S. Europe.

BUPLEURUM. Hare's Ear. Umbelliferæ.

B. fruticosum. Mediterranean region.

Height 7 feet. The only member of the Umbelliferæ which becomes a shrub. It flowers late in

the summer, growing in an open border, and is quite hardy.

BUXUS. Euphorbiaceæ.

B. sempervirens. Common Box. Europe, Britain, N. Africa and W. Asia.

B. sempervirens, var. **elegantissima.**

„ var. **Handsworthii.**

„ var. **suffruticosa.**

C

CÆSALPINIA. Leguminosæ.

***C. Gilliesii.** Argentina.

C. japonica. China and Japan.

Is perfectly hardy at Nymans, and thrives in an open bed. Frost has never injured it in the least. The foliage is improved if pruned hard each spring.

CALANTHE. Orchidaceæ.

††**C. Veitchii.** Garden origin.

CALCEOLARIA. Scrophulariaceæ.

***C. amplexicaulis.** Ecuador.

†**C. Burbidgei** (**amplexicaulis** × **Pavonii**). Garden origin.

†**C. integrifolia.** Chile.

Syn. **C. rugosa.**

***C. violacea.** Chile.

We have grown this little shrub in the open for some years, but it depends for its flowering on the ripening of the previous year's growth. It is better grown in a greenhouse, as the young shoots, even if protected, are frequently damaged by early frost.

CALLIANDRA. Leguminosæ.

†**C. Tweediei.** Brazil.

Syn. **Inga pulcherrima.**

CALLIANTHEMUM. Ranunculaceæ.**C. anemonoides.** Styria.Syn. **Ranunculus anemonoides.****CALLICARPA.** Verbenaceæ.**C. japonica.** Japan.Syn. **C. longifolia.*****C. purpurea.** China and Japan.**CALLISTEMON.** Myrtaceæ.†**C. linearis.** Australia.†**C. pinifolius.** Australia.†**C. rigidus.** Australia.†**C. robustus.** Australia.

Is not hardy here in the open. It flowers in the Shrub House, and the old seed vessels remain tightly on the branches, retaining the seed seven or eight years.

***C. salignus.** Australian Bottle-brush. Australia.

In the summer, when it flowers, this plant with its "beautiful stamens" seems most appropriately named. Here it grows on a south wall and is protected in severe weather. It flowers abundantly each season and forms seed.

CALLITRIS. See **TETRACLINIS.****CALLUNA.** Ericaceæ.**C. vulgaris.** Heather, Ling. Europe, Britain.,, var. **alba.**,, var. **alba rigida.**,, var. **alba Serlei.**,, var. **Alportii.**,, var. **aurea.**,, var. **cuprea.**,, var. **flore pleno.**,, var. **Foxii.**,, var. **Hammondii.**,, var. **hypnoides.**,, var. **tenuis.**

CALOPHACA. Leguminosæ.*C. wolgarica.* S. Russia.**CALTHA.** Marsh Marigold. Ranunculaceæ.*C. palustris.* Common Marsh Marigold. N. Hemisphere, Britain.*C. polypetala.* Asia Minor.**CALYCANTHUS.** Calycanthaceæ.*C. floridus.* Carolina Allspice. S.E. United States.*C. occidentalis.* Californian Allspice. California.

A shrub, 12 feet high by 15 feet through, which grows well in shade.

CALYSTEGIA. Bear-bind. Convolvulaceæ.*C. hederacea*, var. fl. pl. China, Japan, etc.Syn. *C. pubescens*.**CAMELLIA.** Ternstroemiaceæ.**C. cuspidata.* W. China.Syn. *Thea cuspidata*.

A plant, some five years old, bears its small white flowers in April and May. It is quite hardy.

**C. japonica.* Common Camellia. China and Japan.

- * ,, var. *Adelina Patti*.
- * ,, var. *Apollo*.
- * ,, var. *Arejishii*.
- * ,, var. *Augustina superba*.
- * ,, var. *Ceres*.
- * ,, var. *Chandleri elegans*.
- * ,, var. *Donckelaarii*.
- * ,, var. *Jupiter*.
- ** ,, var. *latifolia*.
- * ,, var. *Mars*.
- * ,, var. *mathotiana*.
- * ,, var. *Mercury*.
- * ,, var. *Minerva*.
- * ,, var. *Waltham Glory*.

***C. Sasanqua**, var. **Single pink**. China and Japan.

* „ var. **Single white**.

C. tangutica.

C. Thea. Tea Plant. Upper Assam.

A small specimen of this tea plant has, so far, proved a successful experiment. With the protection of boughs in severe weather, it has survived two winters in the Wall Garden.

CAMPANULA. Campanulaceæ.

C. carpatica. E. Europe.

„ var. **alba**.

C. excisa. Switzerland.

***C. garganica**. Italy.

„ var. **hirsuta**.

C. glomerata. Clustered Hairbell. Europe, Britain, etc.

***C. isophylla**. Ligurian Hairbell. Italy.

* „ var. **alba**.

C. lactiflora. Caucasus.

C. Medium. Canterbury Bell. S. Europe.

C. persicifolia. Peach-leaved Bell Flower. Europe.

„ var. **alba**.

C. portenschlagiana. Dalmatia.

Syn. **C. muralis**.

C. pulla. Europe.

C. pusilla. Europe.

„ var. **alba**.

„ var. **pallida**.

***C. pyramidalis**. Europe.

* „ var. **alba**.

C. Raineri. Italy.

†**C. Vidalii**. Azores.

C. waldsteiniana. Croatia.

CAMPHORA. See CINNAMOMUM

CANARINA. Campanulaceæ.

†**C. campanulata**. Canaries.

CANDOLLEA. Dilleniaceæ.

†*C. tetrandra*. Australia.

CANNA. Cannaceæ.

†Many garden varieties.

CANTUA. Polemoniaceæ.

†*C. buxifolia*. Peru.

Syn. *C. dependens*.

Our garden is too cold for this shrub. Severe weather will always kill it, even on a south wall.

CAPPARIS. Capparidææ.

**C. spinosa*. India, etc.

CARAGANA. Leguminosæ.

C. arborescens. Pea Tree. Siberia.

C. aurantiaca. Central Asia.

C. Chamlagu. N. China.

C. jubata. Siberia and Mongolia.

A curious plant, with a thick stem, surrounded by prickly spines. It grows and flowers very freely on a dry bank of sandy soil.

C. spinosa. Siberia.

Syn. *Robinia ferox*.

CARMICHAELIA. Leguminosæ.

†*C. australis*. New Zealand.

**C. flagelliformis*. New Zealand.

A tender shrub, subject to red spider in hot and dry summers. It grows upon a south wall and flowers well.

CARNATION. See DIANTHUS.**CARNIOLA. See GENISTA.****CARPENTERIA. Saxifragaceæ.**

**C. californica*. California.

CARPINUS. Hornbeam. **Corylaceæ.**

- C. Betulus.** Common Hornbeam. Europe, Britain, etc.
 „ var. **horizontalis.**

Height 12 feet, with a head of branches 14 feet through. Planted in the Arboretum 1910.

- C. caroliniana.** American Hornbeam. E. North America.

Syn. **C. americana.**

Height 6 feet, 6 inches. Planted in the Arboretum 1912.

- C. cordata.** Japan.

Height 6 feet. A slow-growing little tree, planted in the Arboretum 1912.

- C. laxiflora,** var. **macrostachya.** China.

Height 7 feet 9 inches. A small tree, planted in the Arboretum 1914. It has flowered, and the fruit has developed.

CARRIEREA. **Bixaceæ.**

- C. calycina.** W. and Central China.

So far the hardiness of this tree, which Mr. Wilson introduced from China, has not been proved. Our plants were raised from Mr. Wilson's seeds, and one small tree has been planted out of doors for three years on a north-east slope, where it seems at home.

CARYA. Hickory. **Juglandaceæ.**

- C. alba.** Shell-bark Hickory. E. North America.

Height 32 feet. Planted in the Arboretum 1902.

- C. amara.** Bitter Nut. E. North America.

Height 11 feet. Planted in the Arboretum 1913.

- C. tomentosa.** Mocker Nut, Big-bud Hickory. E. North America.

CARYOPTERIS. **Verbenaceæ.**

- ***C. Mastacanthus.** China and Japan.

For seven or eight years *C. Mastacanthus* has had no protection in the open, and has proved quite hardy. In autumn it is covered with ceanothus-like blue flowers.

CASSANDRA. Ericaceæ.

C. calyculata. Leather Leaf. E. North America,
N. Europe, N. Asia.

CASSIA. Leguminosæ.

†**C. bicapsularis.** Tropical America.

***C. corymbosa.** N. America.

Syn. **C. floribunda.**

This shrub has succeeded admirably in a south-west angle of the house. It requires the protection of mats and ashes in winter. In the late summer it makes a fine show of yellow blossoms, which last till the November frosts begin.

C. lævigata. Tropics.

C. marylandica. Wild Senna. S.E. United States.

†**C. Sophora.** Tropics, Old World.

†**C. sp.**

CASSINIA. Compositæ.

C. fulvida. New Zealand.

Syn. **Diplopappus chrysophyllus.**

CASSIOPE. Ericaceæ.

C. tetragona. Lapland, N. America.

Syn. **Andromeda tetragona.**

To compensate for the covering of snow, which this little plant loves, and of which it is deprived in the South of England, we mulch it each year, adding peat and sand, and plant it in a shaded corner, where it thrives.

CASTANOPSIS. Cupuliferæ.

C. chrysophylla. Golden Chestnut. California and Oregon.

Height 12 feet. Growing in a sheltered and somewhat shaded border, which keeps the full strength of the sun from the trunk. It flowers in August, and a small chestnut burr then forms. It has never been damaged by frost here, in the Wall Garden.

CASUARINA. Casuarinææ.

†*C. sumatrana*. Sumatra.

CATALPA. Bignoniaceæ.

C. bignonioides. Indian Bean. S.E. United States.

Height 27 feet. Planted in the Arboretum 1902.

C. Bungei. China.

C. ovata. W. China.

Syn. *C. Kæmpferi*.

C. speciosa. S. Central United States.

Syn. *C. cordifolia*.

Height 20 feet. Planted at the same time as

C. bignonioides.

CAVENDISHIA. Vacciniaceæ.

†*C. acuminata*. Mexico.

Ten degrees of frost killed this shrub, although protected with matting and sheltered by a south wall. It seems, therefore, hardly worth while to attempt to grow it in the open in the south-eastern counties of England.

CEANOTHUS. Rhamnaceæ.

C. americanus. New Jersey Tea. E. and Central United States.

C. integerrimus. Deer Bush. California.

**C. papillosus*. California.

C. thyrsiflorus. Californian Lilac. California.

C. veitchianus. California.

Hybrid varieties—

Brilliant.

Carmine Gem.

Gloire de Plantières.

Gloire de Versailles.

Lustre.

Marie Simon.

Virginale.

CEDRELA. Meliaceæ.

C. sinensis. Chinese Cedar. N. and W. China.

Height 25 feet. A thriving tree, planted in the Arboretum 1902.

CEDRUS. Coniferæ.

C. atlantica. Atlas Cedar. N. Africa.

Height 59 feet. The spreading tree on the lawn was probably planted about 1850.

C. atlantica, var. argentea.

„ var. **aurea.**

„ var. **glauca.**

Height 35 feet. Trees planted in the Rock Garden and Pinetum about 1892.

C. Deodara. Deodar. Himalaya.

Height 64 feet. Planted about 1850.

C. Deodara, var. albo-spica.

„ var. **aurea.**

Height 29 feet. A free-growing tree, planted in the Pinetum 1897.

C. Deodara, var. compacta.

„ var. **erecta.**

„ var. **glauca.**

„ var. **robusta.**

Height 18 feet. A graceful tree, with drooping branches, and leaves, in some cases, 3 inches long. Planted in the Pinetum 1896.

C. Deodara, var. Sargenti pendula.

„ var. **viridis.**

C. Libani. Cedar of Lebanon. Mt. Lebanon and Cilician Taurus.

C. Libani, var. compacta.

„ var. **glauca.**

CELASTRUS. Celastraceæ.

C. articulatus. N.E. Asia.

We grow this as a bush, which perhaps accounts for its somewhat straggling habit of growth; for it is happier as a climber. The fruits are beautiful in winter.

C. scandens. Staff Tree. E. United States.

C. sp. Wilson.

CELMISIA. Compositæ.

**C. Dalli*. New Zealand.

**C. spectabilis*. New Zealand.

CELTIS. Nettle Trees. Urticacæ.

C. australis. S. Europe and Orient.

Height 14 feet. The beauty of Nettle Trees lies in their autumn colouring, although they are graceful at all times. *C. australis* has now been out in a border of shrubs for three years, where it has stood 20 degrees of frost, and I hope it is firmly established at last. We met with continual failure when we tried planting little trees of a foot or so high. They were cut down each winter, and bore the scars of a similar fate which had overtaken them elsewhere. Finally, we let one tree remain in the Shrub House until it was 10 feet high, and the trunk about 2 inches in diameter at the base. This is the tree which I now record. It was bought under the name of *Celtis Tournefortii*.

C. occidentalis. Sugarberry. E. North America.

Height 18 feet. Planted in the Arboretum 1902.

C. occidentalis, var. *crassifolia*. Hackberry. E. North America.

EPHALANTHUS. Rubiaceæ.

C. occidentalis. Button-bush. E. North America.

CEPHALOTAXUS. Taxacæ.

C. drupacea. China and Japan.

C. Fortunei. Northern China.

C. pedunculata. Japan.

„ var. *fastigiata*.

CERASTIUM. Mouse-ear Chickweed. Caryophyllacæ.

C. tomentosum. Europe, etc.

CERASUS. See PRUNUS.

CERATOSTIGMA. Plumbaginaceæ.

- C. plumbaginoides.** Leadwort. China.
Syn. **Plumbago Larpentæ.**

CERCIDIPHYLLUM. Trochodendraceæ.

- C. japonicum.** China and Japan.

The leaves of the *Cercidiphyllum* are most attractive when they first come out—a light bronze in colour. Unfortunately they are rather tender, and the cold winds of April and May sometimes wither them. Our shrubs are in front of a large Willow of Babylon, which throws up the colour of the dark leaves.

CERCIS. Leguminosæ.

- **C. chinensis.** Chinese Redbud. China.
C. Siliquastrum. Judas Tree. S. Europe and Orient.

CEROPEGIA. Asclepiadaceæ.

- †**C. Monteiroæ.** Delagoa Bay.
†**C. Sandersoni.** Natal.
†**C. Woodii.** S. Africa.

CESTRUM. Solanaceæ.

- †**C. aurantiacum.** Guatemala.

Experience has proved that this *Cestrum* needs the protection against frost which a glass house provides, but that heat is unnecessary. It is not hardy enough to stand a winter in the open.

- *C. elegans.** Mexico.
***C. Newelli.**

Grown upon a south wall, *C. Newelli* has flowered during four summers, though partially injured by frost in severe weather. It requires a favoured position, and protection during the winter. The scarlet flowers, which make a good show of colour in May and June, are apt to turn to a dull brick-red in strong sunshine.

- *C. smithianum.**

CHAMÆLIRIUM. Liliaceæ.

C. carolinianum. N. America.

CHAMÆEROPS. Palmæ.

C. humilis. S. Europe, N. Africa.

A smaller plant than *Trachycarpus Fortunei*, with thorny projections on the stalks of the leaves. This has been out all through the winter, 1915-16, and seems quite unharmed.

See also **TRACHYCARPUS.**

CHEIRANTHUS. Cruciferæ.

C. mutabilis. Canaries.

CHELONE. See **PENTSTEMON.****CHIMAPHILA.** Ericaceæ.

C. maculata. N. America.

CHIMONANTHUS. Calycanthaceæ.

C. fragrans. Winter Sweet. China.

CHIONANTHUS. Oleaceæ.

C. retusa. Chinese Fringe Tree. China.

C. virginica. Fringe Tree. E. United States.

CHIONODOXA. Liliaceæ.

C. Luciliæ. Asia Minor.

CHIRONIA. Gentianaceæ.

†**C. linoides.** S. Africa.

CHLOROPHYTUM. Liliaceæ.

†**C. Bowkeri.** S. Africa.

CHOISYA. Rutaceæ.

C. ternata. Mexican Orange Flower. Mexico.

A bush, 7½ feet high and 11 feet through, in a sheltered position, has never been injured by cold,

though plants elsewhere in the garden have suffered in severe winters.

CHORIZEMA. Leguminosæ.

- †**C. cordatum.** Australia.
Syn. **C. Lowi.**
- †**C. cordatum,** var. **splendens.**
- †**C. ilicifolium.** Australia.
- †**C. varium.** W. Australia.

CHRYSANTHEMUM. Compositæ.

- †**C. frutescens.** Canaries.
- C. maximum.** Pyrenees.
- Many garden varieties.

CINERARIA. See SENECIO.

CINNAMOMUM. Lauracæ.

- ***C. Camphora.** Camphor. China and Japan.

CISTUS. Cistineæ.

- ***C. florentinus.** S. Europe and Algiers.
- C. laurifolius.** S.W. Europe and Mediterranean region.
- ***C. Loreti** (**monspeliensis** × **ladaniferus**). Garden origin.
Syn. **C. lusitanicus.**
- ***C. purpureus** (**villosus** × **ladaniferus**). Levant.
- ***C. villosus.** Mediterranean region.
- * „ var. **Gravetye.**

See also **HELIANTHEMUM.**

CITHAREXYLON. Fiddle-wood. Verbenacæ.

- ***C. bessonianum.**
An evergreen plant, with pendulous, vervain flowers. It is hardy with the protection afforded by a south wall.

CITRUS. Rutacæ.

- †**C. Aurantium.** Sweet Orange. Tropical America.
See also **ÆGLE.**

CLADRASTIS. Leguminosæ.

C. tinctoria. Yellow Wood. S.E. United States.

Syn. **C. lutea** and **Virgilia lutea**.

See also **MAACKIA**.

CLEMATIS. Ranunculaceæ.

C. æthusifolia. N. China and Manchuria.

C. Armandi. Central and W. China.

C. calycina. Fern-leaved Clematis. Corsica, Minorca, etc.

Syn. **C. balearica**.

C. cirrhosa. Spain, Algeria and Palestine.

C. Flammula. S. Europe.

C. Jackmani (**lanuginosa** × **Hendersonii**). Garden origin.

C. lanuginosa hybrids.

C. montana. Himalaya.

„ var. **rubens.** China.

C. orientalis. Caucasus to Manchuria.

Syn. **C. graveolens**.

C. paniculata. Japan.

C. tangutica, F. 340. Central Asia.

Syn. **C. orientalis,** var. **tangutica.**

C. tubulosa. Central and North China.

C. Vitalba. Traveller's Joy, Old Man's Beard. Europe, Britain.

C. sp., F. 315.

C. sp. 321.

CLERODENDRON. Verbenaceæ.

††**C. fallax.** Java.

C. Fargesii. Szechuen.

This appears to be a hardy shrub. It is covered with white blossoms in August, but the chief attraction is its pale blue fruit, surrounded by the pink calyx. It was planted in 1908, and flowered here for the first time in 1913, which was a very favourable year for it, and in the autumn the plant was covered with fruit. It has flowered annually since, though never in such profusion.

C. foetidum. China.

Syn. **C. Bungei.**

†**C. fragrans**, var. **fl. pl.** China, Java, etc.

***C. serotinum.** China.

This is a strong growing shrub, but also, unfortunately, a late growing one. Frost so often cuts the young growth back that it never flowers; the plant, therefore, is not really satisfactory in the open air.

C. trichotomum. China and Japan.

Height 13 feet; spread of branches 16 feet. This was planted about twenty years ago, in a border, and has grown into a shapely little tree. It is quite hardy, and scents the air all around when it flowers in July.

CLETHRA. Ericaceæ.

C. alnifolia. Sweet Pepper Bush. E. North America.

†**C. arborea.** Madeira.

Flowers well in the Cool Shrub House, but has never succeeded in the open though tried several times.

CLEYERA. Ternstroemiaceæ.

***C. ochracea.** Himalaya, China and Japan.

Syn. **C. japonica.**

CLIANTHUS. Leguminosæ.

†**C. Dampieri.** Glory Pea. Australia.

***C. puniceus** (Parrot's Bill), var. **albus.** New Zealand.

* „ var. **magnificus.** New Zealand.

CLIVIA. Amaryllidææ.

†**C. miniata.** S. Africa.

„ many varieties.

COBÆA. Polemoniaceæ.

***C. scandens.** Mexico.

COCCULUS. Menispermaceæ.**C. carolinus.** S.E. United States.**C. trilobus.** Japan, Corea and China.Syn. **C. Thunbergii.****COLCHICUM.** Liliaceæ.**C. autumnale.** Meadow Saffron. Europe.**C. speciosum.** Caucasus.**COLEONEMA.** Rutaceæ.†**C. album.** S. Africa.

A heath-like little plant with white flowers from the Cape of Good Hope, which looks well in summer on a rock wall. It cannot withstand frost.

COLLETIA. Rhamnaceæ.**C. armata.** S. Chile.**C. cruciata.** The Anchor Plant. Chile and Uruguay.

Height 9 feet, width 9 feet. The Colletias have done well in the Wall Garden: one plant is in full sunshine and one in shade. They both flower well.

COLQUHOUNIA. Labiatæ.†**C. coccinea.** Himalaya.**COLUMNEA.** Gesneraceæ.†**C. magnifica.****COLUTEA.** Bladder Senna. Leguminosæ.**C. arborescens.** Common Bladder Senna. Mediterranean region and S.E. Europe.**C. media.**Syn. **C. purpurea** and **C. violacea.****COMMELINA.** Day Flower. Commelinaceæ.***C. cœlestis.** Mexico.

COMPTONIA. Myricaceæ.

- C. asplenifolia.** Sweet Fern. E. North America.
Syn. **Myrica asplenifolia.**
See also **MYRICA.**

CONVALLARIA. Liliaceæ.

- C. majalis.** Lily of the Valley. Europe, Britain.
,, var. **Berlin.**
,, var. **Fortune's.**

CONVOLVULUS. Bindweed. Convolvulaceæ.

- C. althæoides.** Mediterranean region.
C. cantabricus. S. Europe.
***C. Cneorum.** S. Europe.
C. lineatus. S. Europe, etc.
***C. mauritanicus.** N. Africa.

COPROSMA. Rubiaceæ.

- C. acerosa.** New Zealand.
†**C. Baueri.** Norfolk Island.
***C. robusta.** New Zealand.

Height 14 feet. In New Zealand this is the most generally distributed of all the species. It is a dark evergreen shrub with small inconspicuous flowers and berries. Planted 6 feet from a south wall, it has successfully stood several winters in the open. It is worth growing for the handsome glossy foliage.

COPTIS. Ranunculaceæ.

- C. trifoliata.** Gold Thread. Northern Hemisphere.

CORDYLINE. Liliaceæ.

- ***C. australis.** New Zealand.

The southern Cordyline has grown for some time on the edge of an old quarry, but it is not so hardy as *C. indivisa*. The heart of the plant is damaged by cold in winter, but shoots grow from the base in spring.

***C. indivisa.** New Zealand.

Has grown in a sunny corner of the Quarry for some years, and has stood 20 degrees of frost without being harmed. The plants are 4 feet high, with leaves 5 inches across.

C. Pumilio.** New Zealand.**COREOPSIS.** Compositæ.**C. lanceolata.** N. America.**CORIARIA.** Coriariaceæ.C. angustissima.** New Zealand.

This shrub was obtained from New Zealand, and flowered in May, 1916, in the Shrub House. We have not yet tried it out of doors.

***C. nepalensis.** Nepaul and Upper Burmah.

Hardy in the Wall Garden.

C. terminalis. Sikkim, Thibet and China.

This is quite hardy, and each autumn the branches are covered with the shining, amber-yellow fruit.

CORMUS. See **PYRUS.****CORNUS.** Cornel, Dogwood. **Cornaceæ.****C. alba,** var. **Spaethii.** Spaeth's Cornel.**C. canadensis.** N. America.***C. capitata.** Bentham's Cornel. N. India to China.

Syn. **Benthamia fragifera.**

This shrub has really succeeded well. Two specimens have been in their present position near a south wall since it was built in 1907. They are about the same size, 17 feet high and 18 feet through, and are covered with flowers in summer. The strawberry-like fruit remains upon the shrub most of the winter.

C. florida. Flowering Dogwood. E. United States.

Height 15 feet. A shapely, spreading shrub; growing, however, in too shady a place to flower well.

CORNUS NUTTALLI

C. florida, var. pendula.,, var. **rubra.**

Height 15 feet; spread of branches 15 feet. A very beautiful Cornus, with pink bracts to the flowers, quite hardy, and one of the most ornamental shrubs in the garden. It flowered but little in its smaller stage, but it is now covered with blossoms in May.

C. Kousa. Central China, Corea and Japan.Syn. **Benthamia japonica.**

Height 10 feet, diameter 12 feet. With rows of flowers and bracts standing upright along the branches, grows here in partial shade and often makes a growth a foot in length in a season. Planted in the Wall Garden 1904.

C. macrophylla. Himalaya.

Height 15 feet. Planted in the Arboretum 1905.

C. Mas, var. variegata. Cornelian Cherry. Europe.**C. Nuttalli.** W. North America.

This, perhaps the handsomest of the Cornels, has flowered and fruited well in the Wall Garden here for some years. It has been in its present position since 1907, and now measures 12 feet high and 12 feet through.

C. sanguinea. Common Dogwood. Europe, Britain.**C. stolonifera.** Red Osier Dogwood. N. America.,, var. **flaviramea.****COROKIA.** Cornaceæ.**C. Cotoneaster.** New Zealand.

This shrub, with its curiously interlaced branches, is grown in an open position, and has proved quite hardy, requiring no protection in winter. It flowers in May, and the fruit ripens to a red berry, which remains on the branchlets till the following spring.

***C. macrocarpa.** New Zealand.

Height 8 feet, width 6 feet. This bushy shrub has both flowered and fruited near a south wall, where it has been slightly protected during four winters, and is now, apparently, quite established. The flowers grow in the axils of the leaves, the under side of which is covered with a silvery-white tomentum.

****C. virgata.** New Zealand.

CORONILLA. Leguminosæ.**C. cappadocica.** Asia Minor.Syn. **C. iberica.****C. Emerus.** Scorpion Senna. Central and S. Europe.***C. glauca.** S. Europe.**CORREA. Rutaceæ.*****C. speciosa.** Australia.**CORTADERIA. Gramineæ.****C. argentea.** Pampas Grass. Brazil.,, var. **carminea** Rendatleri.**CORYDALIS. Papaveraceæ.****C. lutea.** Yellow Fumitory. Europe.**CORYLOPSIS. Hamamelidaceæ.****C. pauciflora.** Japan.**C. spicata.** Japan.**CORYLUS. Hazel, Filbert. Cupuliferæ.****C. Columna.** Turkish Hazel. S.E. Europe.

Height 15 feet. Planted in the Arboretum 1912.

C. maxima, var. atropurpurea. S. Europe.**CORYNOCARPUS. Anacardiaceæ.****†C. lævigata.** New Zealand.

We tried this in a very sheltered position on the wall, but it was killed at the approach of winter. According to Captain Dorrien-Smith (*R. H. S. Journal*, Oct., 1911) it is nowhere hardy in Great Britain except in the Scilly Isles.

COTONEASTER. Rosaceæ.**C. acutifolia.** N. and W. China.**C. bacillaris.** Himalaya.

Height 16 feet, spread 14 feet. This is one of the tall-growing Cotoneasters, and is a most graceful shrub. It was planted in 1904 on the slope of

the Park, where the soil is fairly heavy. The fruit is black and most unusual.

C. bullata. W. China and Thibet.

C. buxifolia. Nilghiri Hills.

C. congesta. Himalaya.

C. dielsiana. Central China.

Syn. *C. applanata*.

C. Francheti. Thibet and W. China.

C. frigida. Himalaya.

C. horizontalis. China.

Syn. *C. davidiana*.

C. humifusa. Central China.

C. microphylla. Himalaya.

C. pannosa. Yunnan.

C. Simonsii. Khasia Mountains.

C. thymifolia. Himalaya.

COTULA. Compositæ.

C. dioica. New Zealand.

Syn. *Leptinella dioica*.

COTYLEDON. Pennywort. **Crassulaceæ.**

**C. farinosa*. California.

†*C. gibbiflora*. var. *metallica*. Mexico.

**C. Peacockii*. N. America.

†*C. pulchella*.

†*C. retusa*. Mexico.

**C. secunda*, var. *glauca*. Mexico.

***C. sp.*

GRAMBE. Kale. **Cruciferæ.**

C. cordifolia. Caucasus.

C. maritima. Sea Kale. Europe, Britain.

CRASSULA. **Crassulaceæ.**

†*C. Bolusii*. S. Africa.

**C. falcata*. S. Africa.

Syn. *Rochea falcata*.

See also **ROCHEA**.

CRATÆGO-MESPILUS. Rosaceæ.

C.-m. grandiflora. France.

Height 14 feet, spread of branches 15 feet. A little tree, with the leaves of a *Mespilus* and the flowers of a glorified *Cratægus*. It flowers towards the end of May.

CRATÆGUS. Rosaceæ.

C. arkansana. Central Arkansas.

Height 11 feet. It came in 1912 from Meehan, Philadelphia, U.S.A., with several other Thorns, among them being *C. mollis*, *C. submollis*, *C. viridis*, Planted in the Arboretum.

C. Carrierei. Garden origin.

Height 18 feet. Planted in the Arboretum 1901.

C. coccinea. N. America.

Height 15 feet. Planted in the Lower Arboretum 1912.

C. Crus-galli. Cockspur Thorn. E. North America.

Height 17 feet. Perhaps the best *Cratægus* at Nymans. Planted in the Lower Arboretum 1901.

C. mollis. Red Haw. Central United States.

Height 8 feet. Planted 1913.

C. orientalis. Orient.

C. Oxyacantha. Hawthorn, May. Europe, Britain.

„ pink and red varieties.

„ var. *præcox*. Glastonbury Thorn.

C. punctata. E. North America.

Height 18 feet. Planted 1914.

C. submollis. E. Massachusetts.

Height 7 feet. Planted 1913.

C. viridis. S.E. United States.

Height 7 feet. Planted 1913.

***C. sp., 5597 Forrest.**

CRINUM. Amaryllidaceæ.

***C. longifolium.** Cape of Good Hope.

Syn. *C. capense*.

The *Crinums* have been planted in a border near the Shrub House especially made for these bulbous

plants. The border is raised slightly and well drained, faces west and is well sheltered. Of the three *Crinum*s which grow here *C. longifolium* and *C. Powellii* are the hardiest, and grow and flower well. *C. Moorei* is a little tender and requires the protection of ashes in winter.

**C. longifolium*, var. *album*.

**C. Moorei*. Natal.

C. Powellii (*longifolium* × *Moorei*). Garden origin.

CROCUS. Iridaceæ.

C. medius. N. Italy.

„ Garden varieties.

CROWEA. Rutaceæ.

†*C. saligna*. Australia.

Syn. *C. latifolia*.

CRUCIANELLA. See PHUOPSIS.

CRYPTOMERIA. Coniferæ.

C. japonica. China and Japan.

Height 62 feet. A tree planted upon the Lawn about 1850.

C. japonica, var. *araucarioides*.

Height 18 feet. A pendulous sparsely branched tree, planted in the Pinetum 1899.

C. japonica, *elegans*.

„ var. *falcata*.

„ var. *Lobbi*.

„ var. *monstrosa*.

CUNNINGHAMIA. Coniferæ.

C. sinensis. China.

CUPRESSUS. Coniferæ.

C. arizonica. Arizona Cypress. Arizona.

Height 29 feet. A tree columnar in shape, which has produced cones annually for some years, said by Dr. Henry to be one of the largest specimens in Great Britain. Planted in the Pinetum 1898.

***C. Benthami.** Mexico.

Height 24 feet. Planted 1900.

***C. cashmeriana.** Asiatic origin.

Syn. **C. funebris**, var. **glauca**.

Height 11 feet. Planted in a sheltered position, *C. cashmeriana* has grown in the open since 1904, and is in good condition. The tree was protected for some years, but has had no protection of late.

C. formosensis. Formosa.**C. funebris.** Chinese Weeping Cypress. Central China.**C. goveniana.** Gowen's Cypress. California.

Height 33 feet. Though apparently growing well this Cupressus has never rooted itself securely, and the tree was blown flat in a gale. Soil was placed on the roots, the tree was raised up, and now does not seem in any way injured. Planted in the Pinetum 1898.

C. lawsoniana. Lawson Cypress. North California, Oregon.

Height 33 feet. Planted in the Pinetum 1898.

C. lawsoniana, var. **alba**.

„ var. **Allumi**.

„ var. **argentea**.

„ var. **aurea**.

„ var. **darleyensis**.

„ var. **erecta viridis**.

„ var. **ericoides**.

„ var. **filifera elegans**.

„ var. **glauca**.

„ var. **gracilis**.

„ var. **gracillima**.

„ var. **Handcross Park**

„ var. **intertexta**.

„ var. **lutea**.

„ var. **lycopodioides**.

„ var. **Milford Bluejacket**.

Height 21 feet. Planted in the Pinetum 1896.

C. lawsoniana, var. **monumentalis**.,, var. **pendula**.,, var. **Silver Queen**.,, var. **Stewarti**.,, var. **Triomphe de Boskoop**.,, var. **versicolor**.,, var. **Westermanni**.,, var. **Wisselii**.

Height 19 feet. Planted 1900.

C. lawsoniana, var. **Youngii**.***C. lusitanica**. Cedar of Goa. Mexico.

Height 27 feet. Injured by frost in a young state, the Cedar of Goa now escapes damage. It is growing in the highest part of the Pinetum, facing south-east, and receives a fair amount of protection from a sheltering belt of firs. Planted 1898.

***C. macnabiana**. Macnab's Cypress. California.

Height 16 feet. This we have not found very hardy. Several trees have lost their leaders, but one tree was planted in 1901 in a sheltered position, where it is seemingly established.

C. macrocarpa. Monterey Cypress. S. California.,, var. **Crippsii**.,, var. **fastigiata**.,, var. **lutea**.

Height 44 feet. A variety, raised by Messrs. Dickson, which grows quickly and retains its rich colour throughout the year. Planted in the Pinetum 1898.

C. nootkatensis. Yellow Cypress. W. North America from Alaska to Oregon.Syn. *Thuyopsis borealis*.**C. nootkatensis**, var. **albo-variegata**.,, var. **compacta**.,, var. **glauca**.,, var. **lutea**.,, var. **pendula**.**C. obtusa**. Hinoki Cypress. Japan.Syn. *Retinispora obtusa*.

C. obtusa, var. **aurea**.

„ var. **compacta**.

„ var. **Crippsii**.

„ var. **filicoides**.

„ var. **filicoides aurea**.

„ var. **lycopodioides**.

„ var. **nana compacta**.

„ var. **pygmæa**.

„ var. **rubra**.

„ var. **variegata**.

C. pisifera. Sawara Cypress. Japan.

Syn. *Retinispora pisifera*.

Height 21 feet. Planted 1896.

C. pisifera, var. **albo-variegata**.

„ var. **aurea**.

Height 17 feet. Planted 1896.

C. pisifera, var. **filifera**.

„ var. **filifera aurea**.

„ var. **lutescens**.

Height 20 feet. Planted 1896.

C. pisifera, var. **nana aurea**.

„ var. **plumosa**.

Height 19 feet. Planted 1896.

C. pisifera, var. **plumosa aurea**.

„ var. **squarrosa**.

Height 19 feet. Planted 1896.

„ var. **squarrosa sulphurea**.

C. sanderiana (sent out as *Juniperus sanderiana* believed to be a form of *C. obtusa*, but origin not really known).

C. sempervirens. Italian Cypress. S.E. Europe, Persia.

„ var. **horizontalis**. S.E. Europe, Asia Minor.

C. sempervirens, var. **stricta**.

Syn. *C. sempervirens*, var. **fastigiata**.

Height 21 feet. Planted 1900.

C. sempervirens, var. **thujæfolia**.

****C. thurifera**. Mexico.

C. thyoides. White Cedar. E. United States.

„ var. *atrovirens*.

„ var. *aurea*.

„ var. *ericoides*.

„ var. *leptoclada*.

„ var. *variegata*.

C. torulosa. Himalayan Cypress. Himalaya.

„ var. *majestica*.

C. sp. $\frac{51}{12}$.

CYANANTHUS. Campanulaceæ.

C. lobatus. Himalaya.

CYATHODES. Epacrideæ.

†**C. empetrifolia.** New Zealand.

CYCLAMEN. Primulaceæ.

C. africanum. N. Africa.

Syn. **C. macrophyllum.**

C. repandum. S. Europe.

Syn. **C. hederæfolium.**

CYDONIA. Quince. Rosaceæ.

C. japonica. Japanese Quince. China and Japan.

„ var. *blush*.

„ var. *cardinalis*.

„ var. *nivalis*.

„ var. *princeps*.

C. Maulei, var. *alpina*. Mountains of Japan.

Syn. **C. Sargentii**.

C. Maulei, var. *superba*.

CYPELLA. Iridaceæ.

C. Herbertii. Buenos Ayres.

***C. platensis.**

CYPRIPEDIUM. Lady's Slipper. Orchidaceæ.

†**C. insigne.** Nepal.

C. spectabile. N. United States.

CYRILLA. *Cyrillaceæ.*

C. racemiflora. Leatherwood. E. North America.

The evergreen form is not very satisfactory for growing in the open air in Sussex. The plant flowers, but as it often makes growth in late autumn the young shoots are liable to suffer from frost.

CYRTANTHUS. *Amaryllidaceæ.*

†**C. Macowanii.** Cape of Good Hope.

†**C. sanguineus.** Cape of Good Hope.

† „ var. **Flambeau.**

CYTISUS. *Broom. Leguminosæ.*

C. albus. White Spanish Broom. Spain and Portugal.

C. Ardoini. Maritime Alps.

C. decumbens. S. and Central Europe.

***C. fragrans.** Canaries.

Syn. **Genista fragrans.**

C. hirsutus. S. Europe.

C. kewensis (**Ardoini** × **albus**). Garden origin.

C. leucanthus. S.E. Europe.

Syn. **C. schipkaensis.**

C. nigricans, var. **Carlieri.** Central and S.E. Europe.

C. præcox (**purgans** × **albus**). Warminster Broom. Garden origin.

C. purpureus. Purple Broom. Central and S.E. Europe.

„ var. **incarnatus.**

C. ratisbonensis. Germany to Caucasus.

Syn. **C. biflorus.**

C. scoparius. Common Broom. W. Europe, Britain, etc.

„ var. **andreaus.**

„ var. **Firefly.**

„ var. **Muriel Messel.**

„ var. **sulphureus.**

C. supinus. Spain to Turkey.

Syn. **C. capitatus.**

DAPHNE RETUSA

D

DABOËCIA. Ericaceæ.

- D. polifolia.** St. Dabeoc's Heath. W. Europe, Ireland.
Syn. *Menziesia polifolia*.

One plant, which must be twenty years old, is 10 feet in diameter. Each autumn we clip off the old flower spikes of all the Dabœcias, so that the plants never become straggling and untidy.

- D. polifolia**, var. *alba*.
„ var. *atropurpurea*.
„ var. *bicolor*.

DACRYDIUM. Coniferæ.

- †**D. Bidwilli.** New Zealand.
***D. cupressinum.** New Zealand.

Height 7 feet. Imported from New Zealand, this tree was grown in a cool house for some years, and finally planted in the open in 1915. Here it survived a winter, with protection, and is making good growth.

- D. Franklini.** Tasmania.

DÆDALACANTHUS. Acanthaceæ.

- ††**D. nervosus.** India.
Syn. *Eranthemum pulchellum*.

DAHLIA. Compositæ.

*Garden varieties.

DAMMARA. See **AGATHIS**.**DAMNACANTHUS.** Rubiaceæ.

- †**D. indicus.** Himalaya and Japan.

DANAË. Liliaceæ.

- D. Laurus.** Alexandrian Laurel. Asia Minor and S. Europe.
Syn. *Ruscus racemosus*.

DAPHNE. Thymelæaceæ.

****D. altaica.** Altai Mountains.

D. blagayana. Carniolia.

D. Cneorum. Garland Flower. Central and S. Europe.

D. Dauphinii (collina × odora). Garden origin.

D. Genkwa. China.

D. Laureola. Spurge Laurel. Europe, Britain.

D. Mezereum. Mezereon. Europe and Siberia.

„ var. *alba*.

„ var. *atropurpurea*.

D. neapolitana. Natural hybrid.

Syn. **D. fioniana.**

A delightful little evergreen bush, which flowers from February onwards, and is perfectly hardy, though slow growing.

***D. odora.** China and Japan.

Syn. **D. japonica.**

D. retusa. W. China.

A neat-growing little shrub about 1 foot high, flowering in May; the flowers arranged in a cluster at the tip of the branches and having a most delicate scent. Here it is growing in an open border, sheltered to a certain extent by a belt of trees. This plant, so far our only specimen, seems perfectly healthy, though coming from an altitude of 13,000 feet.

DAPHNIPHYLLUM. Euphorbiaceæ.

D. macropodium. Japan.

Syn. **D. glaucescens.**

DATURA. Thorn Apple. Solanaceæ.

†**D. chlorantha.**

Height 11 feet. Bears its beautiful yellow trumpet-flowers all the winter, and is quite the hardiest of Daturas. It flowers when *D. suaveolens* is shrivelled with cold, and looks a healthier plant than *D. sanguinea*, which flowers in June.

†**D. meteloides.** California.

Syn. **D. Wrightii.**

†*D. sanguinea*. S. America.

†*D. suaveolens*. Mexico.

Syn. *D. Knightii*.

DAVIDIA. Cornaceæ.

D. involucrata. Central and W. China.

Height 18 feet. Like the Cornels, *D. involucrata* owes its chief beauty to the large white bracts which surround the flowers rather than to the flowers themselves.

Here, in the summer of 1915 it flowered profusely, for the first time since it was planted some ten years ago : about seventy flowers were counted, and the seed ripened the following autumn. It is apparently quite hardy in its present sheltered position in the Wall Garden, where it has grown as much as two feet in one season.

Mr. Wilson in his book *A Naturalist in Western China* says he considers it the most interesting and beautiful of all trees in the North Temperate flora.

DECAISNEA. Berberidaceæ.

D. Fargesii. W. China.

A hardy shrub with handsome foliage, which flowers here in June in the western border, and bears fruit.

DECUMARIA. Saxifragaceæ.

D. barbara. S.E. United States.

DELPHINIUM. Ranunculaceæ.

Garden varieties.

DENDROMECON. Papaveraceæ.

**D. rigidum*. California.

DESFONTAINEA. Loganiaceæ.

D. spinosa. Chile, Peru, etc.

Height 6 feet, diameter 6½ feet. There are several plants of *D. spinosa* in the garden. The best is growing in a shady and damp corner of a sunk garden, where it only gets the early morning sun. It flowers well in August.

DESMODIUM. Tick Trefoil. **Leguminosæ.**

D. canadense. Telegraph Plant. N. America.

Height 7 feet. One of the tallest of the Desmodiums raised from seed. It is quite hardy, and flowers, though somewhat sparingly, upon the upright branches.

D. canescens. N. America.

D. Dillenii. N. America.

D. paniculatum. N. America.

D. tiliaefolium. Himalaya.

A hardy little shrub, growing in an open border and flowering in July. Pruned in the autumn.

See also **LESPEDEZA.**

DEUTZIA. **Saxifragaceæ.**

D. discolor, var. **floribunda.**

„ var. **stellata.**

D. gracilis. Japan.

„ var. **carminea.**

D. kalmiaeflora (**purpurascens** × **parviflora**). Garden origin.

D. Lemoinei. Garden origin.

D. longifolia, var. „ W. China.

„ var. **Veitchii.** China.

D. scabra. China and Japan.

Syn. **D. crenata.**

D. scabra, var. **fl. pl.**

D. Vilmorinæ. Szechuen.

One of the most beautiful of the Deutzias, with countless sprays of pure white flowers in June. It seems to be perfectly hardy, and grows rapidly into a handsome bush.

D. sp. Wilson (probably **D. reflexa**). Central China.

DIANTHUS. Pink, Carnation. **Caryophyllaceæ.**

D. alpinus. Europe.

D. barbatus. Sweet William. Europe.

Garden varieties.

D. cæsius. Cheddar Pink. Europe, Britain.

DAVIDIA INVOLUCRATA

D. Caryophyllus. Carnation. Europe.

D. deltoides. Maiden Pink. Europe, Britain.

„ var. **albus.**

DICENTRA. Bleeding Heart. **Papaveraceæ.**

D. spectabilis. China and Japan.

DICKSONIA. Filices.

D. antarctica. Australia.

A group of Tree Ferns, grown in a little dell in a wood for some years. They can stand a considerable amount of cold, if the stems and fronds are protected with straw in winter.

†**D. squarrosa.** New Zealand.

This is more tender than *D. antarctica*; it is also a smaller fern. A group has been planted out for one winter near *D. antarctica* as an experiment, and though 20 degrees of frost were registered in the open the ferns have all survived.

DICTAMNUS. Rutaceæ.

D. albus. Fraxinella. Europe, etc.

„ var. **purpureus.** Burning Bush.

DIERAMA. Iridaceæ.

***D. pulcherrimum.** S. Africa.

Syn. **Sparaxis pulcherrima.**

These flower each year on the Succulent Rockery, and seem quite hardy, although they have been described as greenhouse plants.

DIERVILLA. Caprifoliaceæ.

D. florida. China.

Syn. **Weigela rosea.**

D. florida, var. **variegata.**

D. hybrida.

„ var. **Abel Carrière.**

„ var. **Conquérant.**

„ var. **Conquête.**

„ var. **Eva Rathke.**

„ var. **Fleur de Mai.**

D. hybrida (*continued*).

- „ var. **Floréal.**
- „ var. **Gloire des Bouquets.**
- „ var. **Glorieux.**
- „ var. **Gracieuse.**
- „ var. **Le Printemps.**
- „ var. **Mont Blanc.**

D. japonica. China and Japan.

***D. middendorffiana.** N. China, Manchuria and Japan.

D. præcox. Japan.

D. rivularis. S.E. United States.

DIOSMA. Rutaceæ.

†**D. vulgaris.** S. Africa.

DIOSPYROS. Ebenaceæ.

D. Kaki. Kakee, Chinese Persimmon. China.

We have grown the Persimmon Tree in the centre of the Wall Garden for some years, and it has flowered and fruited several times. There might have been more fruit had the tree been growing on a wall.

D. virginiana. Persimmon. E. United States.

Height 12 feet. Planted on the east slope of the Park 1914.

DIPELTA. Caprifoliaceæ.

D. floribunda. Central and W. China.

D. ventricosa. W. China.

Height 4 feet. An interesting and somewhat unusual shrub, which flowers in May. The tubular corolla is pink on the outside, with a bright patch of orange inside the tube. The plant is growing in an open border in full sunshine, is seemingly hardy, and bears fruit.

DIPLACUS. See **MIMULUS.****DIRCA.** Thymelæaceæ.

D. palustris. Leatherwood. E. North America.

DIPELTA VENTRICOSA

DISANTHUS. Hamamelidaceæ.

**D. cercidifolia*. Japan.

DISCARIA. Rhamnaceæ.

†*D. Tomatou*. Wild Irishman. New Zealand.

DISTYLIUM. Hamamelidaceæ.

D. racemosum. Japan.

A tree in its native land, but grown here as a shrub on a west wall. The graceful shoots and shiny leaves are the chief attraction. The flowers are apetalous, with a reddish brown calyx, and make little effect. It fruits here quite freely.

DODECATHEON. American Cowslip, Shooting Stars.
Primulaceæ.

D. Meadia, var. *giganteum*. N. America.

DODONÆA. Sapindaceæ.

†*D. viscosa*. Tropics.

DORONICUM. Leopard's Bane. Compositæ.

D. plantagineum. Europe.

DORYANTHES. Amaryllidaceæ.

†*D. Palmeri*. Queensland.

DORYCNIUM. Leguminosæ.

D. rectum. Mediterranean region.

D. suffruticosum. S. Europe.

DRACOPHYLLUM. Epacrideæ.

†*D. longifolium* (doubtful). New Zealand.

Coming from the marshes of New Zealand, this little plant has the look of the sedges and rushes of bogs in England.

†*D. sp.*

DRIMYS. Magnoliaceæ.

D. aromatica. Tasmania and Victoria.

Height about 4 feet. The combination of very dark green foliage and red shoots in this *Drimys* is particularly attractive. Although supposed to be tender, with us it grows against a south wall, and has had no further protection. It is covered with flowers in April.

***D. Winteri.** Winter's Bark. S. America.

We have two specimens of this shrub, one in an open position, the other near a south wall. The former measures 12 feet, the latter 16 feet by 9 feet and 7 feet deep. Neither of them has been protected during recent winters.

DRYAS. Rosaceæ.

D. octopetala. N. Hemisphere, Britain.

DYCKIA. Bromeliaceæ.

***D. brevifolia.** Brazil.

***D. rariflora.** Brazil.

Which Nicholson describes as a greenhouse plant with handsome foliage, grows upon the Succulent Rockery, with merely a span of protecting glass against winter rain.

E**ECCREMOCARPUS. Bignoniaceæ.**

***E. scaber.** Chile.

ECHEVERIA. Crassulaceæ.

†E. linguæfolia. Mexico.

ECHINACEA. Compositæ.

E. purpurea. N. America.

ECHINOPS. Globe Thistle. Compositæ.

E. Ritro. Mediterranean region.

E. sphærocephalus. Europe, W. Asia.

ECHIUM. Bugloss. **Boraginaceæ.**

†**E. fastuosum.** Canaries.

A large shrub in the Cool House, which came from La Mortola. The woody stem is 6 inches in diameter. Unfortunately, this fine Bugloss is not hardy in the open.

†**E. Wildpretii.**

Flowers in the Shrub House—a single shaft of rose-coloured blossoms.

EDGEWORTHIA. **Thymelæaceæ.**

***E. chrysantha.** Himalaya.

EHRETIA. **Boraginaceæ.**

***E. acuminata.** China and Japan.

ELÆAGNUS. Oleaster. **Elæagnaceæ.**

E. argentea. Silver Berry. N. America.

E. glabra. China and Japan.

E. macrophylla. Korean Archipelago and Japan.

E. pungens, var. **argentea.**

ELÆOCARPUS. **Tiliaceæ.**

†**E. cyaneus.** Australia.

Syn. **E. reticulatus.**

Flowers and bears its handsome blue fruit in the Shrub House. The seed, however, has never yet germinated.

ELEUTHEROCOCCUS. See **ACANTHOPANAX.****ELSHOLTZIA.** **Labiatae.**

E. Stauntonii. China.

This plant was only introduced into cultivation in 1909. We have grown it in the open border for five years, and find it quite hardy. It is pruned to the ground each season.

ELYMUS. **Gramineæ.**

E. arenarius. Lyme Grass. Britain.

EMBOTHRIUM. Proteaceæ.

***E. coccineum.** Fire Bush. Chile.

Height 12 feet. With us this tree grows between a belt of fir trees and a north wall, so that its roots and stem are in almost perpetual shade and largely protected from wind and frost. Since 1913 it has flowered early each summer on the 4 feet of it which rise above the top of the wall. The fruit has also ripened, and we have some promising seedlings from the plant. I think this is the first time *Embothrium coccineum* flowered in Sussex.

ENKLIANTHUS. Ericaceæ.

E. campanulatus. Japan.

E. cernuus, var. rubens. Japan.

E. japonicus. Japan.

This little shrub is valuable as growing in a semi-shaded position, facing east, and exposed to the coldest winds. It provides, perhaps, the most vivid autumn colouring in the garden.

EPACRIS. Epacridææ.

†Garden varieties.

EPHEDRA. Shrubby Horse-tail. Gnetaceæ.

***E. altissima.** N. Africa.

Not beautiful, but interesting as being allied to the Coniferæ. Here it has grown up a pole for three years, surviving the rather mild winters.

***E. distachya.** S. and E. Europe.

***E. nebrodensis procera.** Mediterranean region, N. Africa and Canaries.

EPILOBIUM. Willow Herb. Onagraceæ.

E. angustifolium. Rose Bay. N. Hemisphere.

EPIMEDIUM. Barren-wort. Berberidaceæ.

E. sp.

ERANTHEMUM. See **DÆDALACANTHUS.**

EMBOTHRIUM COCCINEUM

ERANTHIS. Ranunculaceæ.

E. hyemalis. Winter Aconite. Europe.

EREMURUS. Liliaceæ.

E. himalaicus. Himalaya.

E. robustus. Turkestan.

ERCILLA. Phytolaccaceæ.

E. volubilis. Chile.

Syn. *Bridgesia spicata.*

ERICA. Ericaceæ.

E. arborea. Tree Heath. Mediterranean region and The Caucasus.

E. arborea, var. *alpina.* Cuenca Mountains of Spain.

E. australis. Spanish Heath. Spain and Portugal.

†*E. caffa.* S. Africa.

E. carnea. Alps of Central Europe.

„ var. *alba.*

E. ciliaris. S.W. Europe, Cornwall, Dorset and W. Ireland.

**E. ciliaris*, var. *maweana.* Portugal.

E. cinerea. Scotch or Grey Heath. W. Europe, Britain.

„ var. *alba major.*

„ var. *coccinea.*

„ var. *pallida.*

„ var. *purpurea.*

„ var. *rosea.*

†*E. gracilis.* S. Africa.

†*E. hybrida.* Garden origin.

†*E. hyemalis.* Garden origin.

E. lusitanica. S.W. Europe.

Syn. *E. codonodes.*

E. Mackayi. Mackay's Heath. N.W. Spain and Connemara.

E. mediterranea. S.W. Europe and Galway.

„ var. *alba.*

„ var. *glauca.*

„ var. *hybrida.*

- E. multiflora.** S. Europe.
E. scoparia. Besom Heath. Central and W. France.
E. stricta. S. Europe.
E. Tetralix. Cross-leaved Heath. N. and W. Europe, Britain.
E. Tetralix, var. alba.
 ,, var. **rubra.**
E. vagans. Cornish Heath. S.W. Europe, Cornwall.
 ,, var. **alba.**
 ,, var. **grandiflora.**
 ,, var. **rubra.**
 †**E. ventricosa.** S. Africa.
E. Veitchii (*arborea* × *lusitanica*). Veitch's Hybrid Heath. Garden origin.
E. Watsoni (*ciliaris* × *Tetralix*). Cornwall.

ERIGERON. Compositæ.

- E. Coulteri.** N.W. America.
E. glabellus. N. America.
E. mucronatus. Mexico.
E. speciosus, var. superba. N.W. America.

ERINACEA. Leguminosæ.

- E. pungens.** Hedgehog Broom. Spain.

ERINUS. Scrophulariaceæ.

- E. alpinus.** Europe.
 ,, var. **albus.**
 ,, var. **carmineus.**

ERIOBOTRYA. Rosaceæ.

- ***E. japonica.** Loquat. China and Japan.
 Syn. **Photinia japonica.**

Grown on a west wall, where it flowers occasionally; is now 12 feet high, and the foliage covers a space of 10 feet.

ERIOGONUM. Polygonaceæ.

E. racemosum.

E. umbellatum. N.W. America.

ERIOSTEMON. Rutaceæ.

†**E. buxifolius.** Australia.

†**E. myoporoides.** Australia.

Syn. **E. neriifolius.**

†**E. pulchellus.** Garden origin.

ERODIUM. Heron's Bill. Geraniaceæ.

E. chamædryoides. Balearic Islands.

E. supracanum. Spain.

ERYNGIUM. Sea Holly. Umbelliferae.

***E. agavifolium.** Argentina.

A handsome, autumn flowering plant, growing upon the edge of an old quarry. The stiff leaves are toothed like a saw.

E. alpinum. Alpine Sea Holly. Europe.

E. amethystinum. Europe.

E. giganteum. Armenia.

***E. pandanifolium.** Monte Video.

A hardy plant, though the tips of the leaves are sometimes frozen, which will grow in the poorest of sandy soils.

E. planum. Europe.

ERYTHEA. Palmæ.

†**E. edulis.** California.

ERYTHRÆA. Centaury. Gentianaceæ.

E. Centaurium. Europe.

E. Massoni. Azores.

Syn. **E. pulchella**, var. **diffusa**.

ERYTHRINA. Leguminosæ.

***E. Crista-galli.** Cockscomb. Brazil.

Grown for some years against the west wall of the house. The shoots are cut down, and the roots covered with ashes in winter. The annual growths which spring up bear the dark crimson flowers in July and August.

†**E. sp.**

ERYTHRONIUM. Dog's Tooth Violet. **Liliaceæ.**

E. Dens-canis. Common Dog's Tooth Violet. Europe.

E. grandiflorum. N.W. America.

ESCALLONIA. Saxifragaceæ.

E. coquimbensis. Chile.

E. exoniensis (pterocladon $\times$ rubra). Garden origin.

Height 13 feet, spread of bush 14 feet. The Escallonias flourish in light sandy soil. Most of them grow in a border which has little protection. Exoniensis has the most exposed place of all and is quite hardy. It flowers from June onwards.

***E. floribunda.** S. America.

E. langleyensis (philippiana $\times$ punctata). Garden origin.

E. macrantha. Chiloe.

***E. montevidensis.** E. South America.

***E. organensis.** Organ Mountains.

Height 9 feet, 6 feet through. This Escallonia from the Organ Mountains requires some protection in winter, though its position is very sheltered, a few feet away from a south wall. We have grown it in the open for five years, and it has formed a good bush, flowering each autumn.

E. philippiana. Valdivia.

E. rubra. Chile.

Height 12 feet, spread of bush 15 feet. A particularly good colour, but the shrub is rather straggling.

EUCRYPHIA CORDIFOLIA

EUCALYPTUS. Gum Tree. **Myrtaceæ.**

E. coccifera. Tasmania.

Height 20 feet. Grown for some years in the Arboretum, and has so far proved hardy. The tree was raised from seed in 1905.

E. cordata. Tasmania.

†**E. ficifolia.** W. Australia.

E. Gunnii. Cider Tree. S. Australia and Tasmania.

Several trees raised from seed at the same time as *E. coccifera*, now measure 39 feet in height. They are, unfortunately, tall and weedy, and are easily blown over by gales. Planted in the Arboretum.

EUCOMIS. **Liliaceæ.**

E. bicolor. Natal.

E. punctata. S. Africa.

EUCOMMIA. **Trochodendraceæ.**

E. ulmoides. China.

Height 12 feet, spread of branches 11 feet. A thriving tree, which has proved quite hardy. Top Garden.

EUCRYPHIA. **Rosaceæ.**

E. cordifolia. Islands of Chiloe and Valdivia.

Height 18 feet, depth $8\frac{1}{2}$ feet. Mr. Bean particularly mentions the Nymans specimen in his *Trees and Shrubs hardy in the British Isles*. In its earlier stages frost often damaged the tips of the branches. Now it remains unprotected in winter, save for the shelter of the Wall Garden, in which it stands. The tree did not flower before it was 10 feet high, but since then has been a mass of blossom each August. Experience shows that the seed, though remaining on the branches, does not mature until fifteen months after its formation. Severe frost might damage the fruit, but we have raised several seedlings.

E. pinnatifolia. Chile.

Height 13 feet, diameter 11 feet. There are two shrubs of this beautiful *Eucryphia* in the garden,

one in a sheltered position, the other in an open border. Both do equally well. They are covered with white blossoms in August, and a little later the plants put on the colouring of autumn. The shrubs were planted when small, in a mixture of peat, leaf mould and loam.

EULALIA. See **MISCANTHUS.**

EUONYMUS. Spindle Tree. **Celastraceæ.**

E. alatus. China and Japan.

Height 6 feet, 12 feet through. Has grown for several years in a shaded position. The leaves turn deep red in autumn.

E. europæus. Spindle Tree. Europe, Britain.

E. japonicus. Evergreen Spindle Tree. Japan.

„ several varieties.

E. latifolius. Europe.

E. nanus. Caucasus to China.

***E. pendulus.** Himalaya.

Syn. **E. fimbriatus.**

Growing upon a west wall, where it has stood the test of several winters. The young leaves are a brilliant reddish bronze in spring, especially if the season be mild.

E. verrucosus. Warty Spindle Tree. E. Europe and W. Asia.

A little shrub, covered with light chocolate-coloured flowers in June.

EUPATORIUM. Hemp Agrimony. **Compositæ.**

†**E. purpureum.** N. America.

***E. weinmannianum.** Mexico.

With slight protection this shrubby composite has lived in the open for eight years, and produces its large corymbs of white flowers each autumn.

EUPHORBIA. Spurge. **Euphorbiaceæ.**

E. Characias. Europe.

††**E. fulgens.** Mexico.

Syn. **E. jacquiniæflora.**

E. Sibthorpii. Greece.

E. Wulfeni.

EUPTELEA. Trochodendraceæ.

E. Franchetii. China.

E. pleiosperma. N. India and W. Szechuen.

Syn. *E. davidiana.*

E. polyandra. Central Japan.

EURYBLA. See **OLEARIA.**

EUSCAPHIS. Sapindaceæ.

†*E. staphyleoides.* China, Corea and Japan.

EXACUM. Gentianaceæ.

†*E. zeylanicum*, var. *macranthum.* Ceylon.

EXOCHORDA. Rosaceæ.

E. Alberti. Turkestan.

Has flowered less than any of the *Exochordas*, but this may be because it is now rather hemmed in by other plants.

E. Giraldii. N.W. China.

The largest-flowered *Exochorda*. One plant, 12 feet high, grows in the Wall Garden; but a smaller shrub, in an open border, flowers better and is quite hardy.

E. grandiflora. N. China.

Flowers occasionally, but here it does not approach *E. macrantha* either in size or beauty.

E. macrantha (*Alberti* × *grandiflora*). The Pearl Bush. Garden origin.

A large shrub, growing near a west wall, and flowering well in May. It has few rivals in beauty, and grows with perfect freedom.

F

FABIANA. Solanaceæ.**F. imbricata.** Chile.

Height 5 feet. Generally supposed to be tender. Here, however, in an open position, it has not been harmed by cold; but wet causes the centre of the flowering shoots to decay, and this decay is liable to spread to the larger branches. In order to prevent this we cut the shoots back after flowering, and the following year flowers form on the new shoots.

FABRICIA. See **LEPTOSPERMUM.****FAGUS.** Beech. **Cupuliferæ.****F. orientalis.** Asia Minor, The Caucasus, etc.

Height 8 feet. Planted in the Arboretum 1914.

F. sylvatica. Common Beech. Europe.

„ var. **cristata.**

Syn. **F. sylvatica**, var. **crispa.**

Height 6 feet. Planted in the Arboretum 1914.

F. sylvatica, var. **cuprea.** Copper Beech.

„ var. **heterophylla.** Fern-leaved or Cut-leaved Beech.

Syn. **F. laciniata.**

F. sylvatica, var. **tricolor.**

Height 15 feet. The leaves have red and white markings. Planted in the Arboretum about 1912.

F. sylvatica, var. **variegata.**

Height 20 feet. Planted in the Arboretum 1912.

F. sylvatica, var. **Zlatia.** Golden Beech.

Height 12 feet. Planted in the Arboretum 1912.

See also **NOTHOFAGUS.**

FASCICULARIA. Bromeliaceæ.**F. pitcairniifolia.** Chile.

Syn. **Rhodostachys pitcairniifolia.**

FATSIA. Araliaceæ.**F. japonica.** Japan.

Syn. **Aralia Sieboldii.**

FEIJOA. Myrtaceæ.

**F. sellowiana*. Brazil.

FENDLERIA. Saxifragaceæ.

**F. rupicola*. S.W. United States.

FERULA. Giant Fennel. Umbelliferæ.

F. communis. Mediterranean region.

F. tingitana. N. Africa, etc.

FICUS. Fig. Urticaceæ.

F. carica. Garden varieties.

F. stipulata. China and Japan.

Syn. *F. repens*.

FTZROYA. Coniferæ.

**F. patagonica*. Patagonian Cypress. W. Patagonia and S. Chile.

Height 7 feet. Has grown in the open for some twelve years, in a sheltered place, but though uninjured by frost it has never become anything more than a shrub.

FONTANESIA. Oleaceæ.

F. Fortunei. China.

F. phillyreoides. Asia Minor.

Syn. *F. linearis*.

FORESTIERA. Oleaceæ.

F. acuminata. S. United States.

Syn. *F. ligustrina* and *Borya acuminata*.

FORSYTHIA. Oleaceæ.

F. suspensa. Golden Bell. China.

F. viridissima. China.

F. sp. F. 381.

FOTHERGILLA. Hamamelidaceæ.**F. Gardeni.** S.E. United States.Syn. **F. alnifolia.****F. major.** E. United States.Syn. **F. alnifolia**, var. **major.****F. monticola.****FRAGARIA. Strawberry. Rosaceæ.****F. indica.** India, China, etc.**FRANCOA. Bridal Wreath. Saxifragaceæ.*****F. ramosa.** Chile.**FRANKENIA. Frankeniaceæ.****F. lævis.** Sea Heath. Europe, etc.**FRAXINUS. Ash. Oleaceæ.****F. americana.** White Ash. E. North America.**F. excelsior.** Common Ash. Europe, Britain.,, var. **aurea.**

Height 15 feet. Planted in the Arboretum 1912.

F. floribunda. Himalayan Ash. N.W. Himalaya.Syn. **Ornus floribunda.****F. Mariesii.** Maries' Ash. Central China.**F. Ornus.** Manna Ash. S. Europe and Asia Minor.

Height 18 feet. Planted in the Arboretum 1902.

F. pennsylvanica, var. **aucubæfolia.** E. North America.

Height 19 feet, but in poor condition. Planted in the Arboretum 1902.

FREESIA. Iridaceæ.***F. refracta.** S. Africa.

Garden hybrids.

FREMONTIA. Sterculiaceæ.***F. californica.** California.

15 feet high, 11 feet through. Three plants failed before we were able to establish one which is now growing on an east wall. This plant flowers well in summer, and good seed has ripened.

FRITILLARIA. Liliaceæ.

F. imperialis. Crown Imperial. Orient.

F. Meleagris. Snake's Head Fritillary. Europe, Britain.

FUCHSIA. Onagraceæ.

**F. arborescens.* Mexico.

**F. coccinea.* Brazil.

**F. corymbiflora.* Peru.

**F. excorticata.* New Zealand.

This was obtained, when a young plant, from New Zealand, through Mr. Travers. Our experience proves it to be as hardy as *F. Riccartoni*. It no longer has the protection in winter which it had as a young plant, and has become a bush 8 feet in height and 7 feet through. The flowers, which appear each spring, grow only on the old wood.

**F. exoniensis.* Garden origin.

**F. gracilis.*

* „ var. *Thompsonii.*

**F. macrostemma.* S. America.

„ var. *globosa.*

**F. pumila.*

**F. Riccartoni.*

As in other parts of Sussex, this Fuchsia grows here into a large bush, and is quite hardy in an average winter. It flowers well, if pruned lightly in March.

**F. thymifolia.* Mexico.

„ Many garden varieties.

FUMANA. See **HELIANTHEMUM.****FUNKIA.** Plantain Lily. Liliaceæ.

F. glauca. Japan.

F. lancifolia. Japan.

„ Garden varieties.

F. sieboldiana. Japan.

FURCRÆA. Amaryllidaceæ.

**F. longæva.* Mexico.

G

GAILLARDIA. Compositæ.

*Garden varieties.

GALANTHUS. Amaryllidaceæ.

G. Elwesii. Asia Minor.

G. nivalis. Common Snowdrop. Europe.

„ var. fl. pl.

GALAX. Diapensiaceæ.

G. aphylla. Carpenter's Leaf. N. America.

GALEGA. Goat's Rue. Leguminosæ.

G. officinalis. Europe, etc.

„ var. alba.

GALTONIA. Liliaceæ.

****G. candicans.** S. Africa.

Syn. **Hyacinthus candicans.**

GARRYA. Cornaceæ.

***G. elliptica.** California and Oregon.

Height 9 feet, spread of branches 10 feet. A shrub growing in a western border, protected from north and easterly winds, often making a growth of two feet in one season.

***G. Thureti. (Fadyenii $\times$ elliptica).** Garden origin.

GAULTHERIA. Ericaceæ.

G. procumbens. Creeping Winter Green. E.N. America.

G. Shallon. Salal, Shallon. W. North America.

GAURA. Onagraceæ.

G. Lindheimeri. Texas.

GAYA. See PLAGIANTHUS.

GAYLUSSACIA. Vacciniaceæ.

G. frondosa. Dangleberry. E. United States.

GELSEMIUM. Loganiaceæ.

†*G. sempervirens.* False Jessamine. S. United States.
Syn. *G. nitidum.*

GENISTA. Broom. Leguminosæ.

G. ætnensis. Etna Broom. Sardinia and Sicily.

A group, 9 feet high, in the western border.
Flowers in July and August.

G. anxantica. Neapolitan Broom. Naples.

G. germanica. Central and W. Europe.

G. hispanica. Spanish Gorse. S.W. Europe.

**G. monosperma.* Mediterranean region.

G. pilosa. S. Europe, S. Britain.

G. radiata. Central and S. Europe.

G. tinctoria. Dyer's Greenweed. Europe, Britain.

„ var. *elatio.*

„ var. *mantica.*

Syn. *Carniola mantica.*

G. virgata. Madeira Broom. Madeira.

A group 10 feet high. Unlike most brooms, this
Genista has most attractive foliage. It is hardy,
and best grown as a group.

GENTIANA. Gentianaceæ.

G. acaulis. Gentianella. Europe.

G. lutea. Bitterwort. Europe.

G. verna. Europe.

GERANIUM. Geraniaceæ.

G. argenteum. Alps.

G. pratense. Crowfoot. Europe, Britain, etc.

G. sanguineum. Europe, Britain, etc.

„ var. *lancastrienne.*

G. wallichianum. Himalaya.

GERBERA. Compositæ.

- ***G. Jamesoni.** S. Africa.
Hybrid varieties.

GEUM. Rosaceæ.

- G. chilense,** var. **Mrs. Bradshaw.**
G. trifoliata. Indian Physic. N. America.

GINKGO. Taxaceæ.

- G. biloba.** W. China, probably.
Syn. **Salisburia adiantifolia.**

GLADIOLUS. Iridaceæ.

- *Many garden varieties.

GLEDITSCHIA. Honey Locust. Leguminosæ.

- ****G. Delavayi.** Yunnan.

Height 4 feet. Planted at the foot of the north slope of the Arboretum 1914.

- G. caspica.** N. Persia, Caspian Sea.

- ****G. texana.** Texas.

A somewhat tender tree, planted in 1912 among silver birch trees in the Arboretum. With this slight protection it has not yet been damaged by frost.

- E. triacanthos.** Honey Locust. Central N. America.

Height 21 feet. Planted in the Arboretum 1902.

- G. triacanthos,** var. **inermis.**

GLYPTOSTROBUS. Taxaceæ.

- G. heterophylla.** China.

Height 7 feet. A tree, at least twenty years old, planted in the Top Garden 1908. It is rare, but of no beauty—a stump thinly set with branches.

GORDONIA. Ternstroemiaceæ.

- †**G. Lasianthus.** Loblolly Bay. S.E. United States.

GREVILLEA. Proteaceæ.

**G. acanthifolia*. Australia.

This grew for some years in a greenhouse, and was put out for the winter of 1915-16. Though 20 degrees of frost were registered it had no protection, and flowered the following May.

†*G. alpina*. Australia.

Syn. *G. alpestris*.

**G. asplenifolia*. Australia.

Syn. *G. longifolia*.

Height 10 feet, diameter of bush 7 feet. One of the less hardy Grevilleas, grown in a border in the Wall Garden for three years. It flowers in June, if protected in the winter, and has succeeded where both *G. Banksii* and *G. ornithopoda* failed.

†*G. Banksii*. Australia.

**G. glabrata*. Australia.

***G. Manglesii*.

†*G. ornithopoda*.

†*G. robusta*. Australia.

G. rosmarinifolia. New South Wales.

„ var. *prostrata*.

**G. sulphurea*. New South Wales.

Syn. *G. juniperina*, var. *sulphurea*.

A group of *G. sulphurea* is well established in a sheltered nook of the Wall Garden. Though there seems little difference in hardiness between *G. sulphurea* and *G. rosmarinifolia*, the former was on one occasion touched by frost when *G. rosmarinifolia* remained unharmed.

†*G. thelemanniana*. Australia.

Syn. *G. Preissii*.

GREWIA. Tiliaceæ.

G. oppositifolia. N.W. Himalaya.

G. parviflora. China and Corea.

GREYIA. Sapindaceæ.

†*G. Sutherlandii*. S. Africa.

GRISELINIA. Cornaceæ.*G. littoralis.* New Zealand.**G. lucida*, var. *macrophylla.* New Zealand.**GUNNERA.** Haloragaceæ.**G. chilensis.* Chile.Syn. *G. scabra.***G. manicata.* Brazil.**GYMNOCLADUS.** Leguminosæ.*G. canadensis.* Kentucky Coffee. E. and Central United States.**GYPSOPHILA.** Chalk Plant. **Caryophyllaceæ.***G. paniculata.* Europe.,, var. *fl. pl.**G. prostrata*, var. *rosea.* Central Asia.*G. repens.* Europe.**H****HABERLEA.** Gesneraceæ.*H. rhodopensis.* Greece.**HABRANTHUS.** See **HIPPEASTRUM.****HAKEA.** Proteaceæ.†*H. saligna.* Australia.

Has twice been killed by frost in the Wall Garden.
 One plant lived through three winters, and grew to a height of 13 feet, but was eventually killed by 20 degrees of frost.

HALESIA. Snowdrop Trees. **Styraceæ.***H. carolina.* Snowdrop or Silver-bell Tree. S.E. United States.Syn. *H. tetraptera.**H. diptera.* S.E. United States.See also **PTEROSTYRAX.**

HALIMODENDRON. Leguminosæ.

***H. argenteum.** Salt Tree. Siberia.

Height 13 feet. A grafted tree, with formidable thorns. It does not flower well here, though growing near the west wall.

HAMAMELIS. Witch Hazel. Hamamelidaceæ.

H. japonica, var. arborea. Japan.

Syn. **H. arborea.**

H. japonica, var. zuccariniana. Japan.

H. mollis. Chinese Witch Hazel. China.

HARDENBERGIA. Leguminosæ.

†**H. comptoniana.** Australia.

†**H. monophylla.** Australia.

HEDERA. Araliaceæ.

H. Helix. Common Ivy. Europe, Britain.

HEDYCARYA. Monimiaceæ.

***H. arborea.** New Zealand.

HEDYCHIUM. Indian Garland Flower. Zingiberaceæ.

†**H. sadlerianum.** Garden origin, probably.

†**H. spicatum.** Himalaya.

Syn. **H. flavescens.**

HEDYSARUM. Leguminosæ.

H. multijugum. Mongolia.

Syn. **H. apiculatum.**

HEERIA. Melastomaceæ.

***H. rosea.** Mexico.

HEIMIA. See NESÆA.

HELENITUM. Sneeze Weed. **Compositæ.****H. autumnale.** N. America.,, var. **cupreum.**,, var. **pumilum.**,, var. **Riverton Gem.****HELIANTHEMUM.** Sun Rose. **Cistaceæ.*****H. formosum.** Portugal.Syn. **Cistus formosus.****H. Fumana.** Mediterranean region.Syn. **Fumana Spachii.****H. Tuberaria.** Mediterranean region.**H. vulgare.** Europe, Britain, etc.

,, Many garden varieties.

HELIANTHUS. **Compositæ.****H. multiflorus,** var. **major.** N. America.,, var. **minor.**

,, Other garden varieties.

HELICHRYSUM. **Compositæ.****H. bellidioides.** New Zealand.***H. rosmarinifolium.** Victoria and Tasmania.Syn. **Ozothamnus rosmarinifolius.******H. Selago.** New Zealand.**HELIOTROPIUM.** **Boraginaceæ.**†**H. peruvianum.** Cherry Pie. Peru.

,, Garden varieties.

HELWINGIA. **Araliaceæ.****H. ruscifolia.** Japan.**HEMEROCALLIS.** Day Lily. **Liliaceæ.****H. flava.** Europe, Temperate Asia.**H. fulva.** Europe, Temperate Asia.

HERACLEUM. Cow Parsnip. **Umbelliferæ.**

H. villosum. Caucasus.

Syn. **H. giganteum.**

HERNIARIA. Rupture-wort. **Illecebraceæ.**

H. glabra. Europe, N. Asia.

HEUCHERA. Saxifragaceæ.

H. pubescens. N. America.

Syn. **H. ribifolia.**

H. sanguinea. New Mexico.

HIBBERTIA. Dilleniaceæ.

***H. dentata.** Australia.

†**H. volubilis.** Australia.

HIBISCUS. Malvaceæ.

††**H. Rosa-sinensis.** Tropics.

†† „ „ var. **subviolaceus.** Tropics.

H. syriacus, var. **coelestis.**

„ var. **fl. pl.**

„ var. **rubra.**

Syn. **Althæa Frutex.**

HIDALGOA. Compositæ.

†**H. Wercklei.** Costa Rica.

HIERACTIUM. Hawkweed. **Compositæ.**

H. aurantiacum. Europe.

HIPPEASTRUM. Amaryllidaceæ.

***H. pratense.** Chile.

Syn. **Habranthus pratensis.**

Many garden varieties.

HIPPOPHÆ. Elæagnaceæ.

H. rhamnoides. Sea Buckthorn. Europe, Britain and
Temperate Asia.

HOHERIA. Malvaceæ.

***H. populnea.** New Zealand.

Height 16 feet. Growing in the Wall Garden, in a sheltered corner, *H. populnea* flowered for the first time in September, 1914. It has much the same appearance and habit of growth as *Plagianthus betulinus*, though the flowers are like *P. Lyallii*. The plant came direct from New Zealand. Other plants bought in England have grown well in a cool house, but have not proved so hardy in the open.

HOLBOELLIA. Berberidaceæ.

H. latifolia. Himalaya.

Syn. *Stauntonia latifolia*.

HOMERIA. Iridaceæ.

H. collina. S. Africa.

Several young plants have been raised from seed from the plants which flowered in the bulb border.

HORMINUM. Labiatæ.

H. pyrenaicum. Pyrenean Dead Nettle. S. Europe.

HOUSTONIA. Rubiaceæ.

H. cœrulea. N. America.

HOVENIA. Rhamnaceæ.

H. dulcis. China.

Height 28½ feet. This tree was planted in the Wall Garden in 1905, but only flowered quite recently. Seed has never formed on the plant, neither have the flower-stalks swelled into the curious edible mass used by the Chinese. The flowers are hidden by the foliage.

HOWEA. Palmæ.

†**H. belmoreana.** Lord Howe Island.

HOYA. Asclepiadææ.

†**H. carnosa.** Wax Flower. Tropical Asia.

HUTCHINSIA. Cruciferae.

H. petræa. Europe, Britain.

HYACINTHUS. See **GALTONIA.****HYDRANGEA.** Saxifragaceae.

H. arborescens. E. United States.

„ var. *grandiflora.*

H. aspera. Himalaya, China.

„ var. *flore albo.*

**H. hortensis.* China and Japan.

* „ var. *Avalanche.*

* „ var. *La Fraîcheur.*

* „ var. *La Lorraine.*

* „ var. *Lindleyi.*

Syn. *H. japonica.*

**H. hortensis*, var. *Mariesii.*

Syn. *Pride of Cornwall.*

**H. hortensis*, var. *Mariesii lilacina.*

* „ var. *nigra.*

Syn. *H. mandschurica.*

H. involucrata. Japan.

H. paniculata. Japan.

„ var. *grandiflora.*

H. petiolaris. Japan.

Syn. *H. scandens.*

H. Thunbergii. Japan.

H. vestita. Himalaya and China.

H. villosa. W. China.

HYMENANTHERA. Violaceae.

H. crassifolia. New Zealand.

HYMENOCALLIS. Amaryllidaceae.

H. calathina. Brazil.

Syn. *Ismene calathina.*

HYMENOPHYLLUM. Filices.

H. tunbridgense. Britain.

HYPERICUM. Hypericaceæ.

- H. Androsæmum.** Tutsan. Europe, Britain.
H. calycinum. Rose of Sharon, Aaron's Beard. Orient.
H. hookerianum. Sikkim Himalaya and Assam.
H. moserianum. Garden origin.
H. uralum. Nepal.
 Syn. **H. nepalense.**

I

IBERIS. Cruciferæ.

- *I. gibraltarica.** Spain, Morocco.
I. sempervirens. S. Europe.
 „ var. **Little Gem.**

IDESIA. Bixaceæ.

- I. polycarpa.** China and Japan.
 Height 24 feet. A staminate tree, planted in the
 Wall Garden 1904.

ILEX. Holly. Aquifoliaceæ.

- I. Aquifolium.** Common Holly. Europe, Britain and
 W. Asia.
I. Aquifolium, var. **argentea marginata.**
 „ var. **aurea regina.** Golden Queen.
 „ var. **Boskoop Gold.**
 „ var. **camelliæfolia.**
 „ var. **ferox.** Hedgehog Holly.
 „ var. **ferox aurea.**
***I. cornuta.** Horned Holly. China.
 A bush 3½ feet high by 6 feet through, growing
 in a very exposed position, where it fruits and often
 makes annual growths five inches in length.
I. decidua. S.E. United States.
I. dipyrena. Himalayan Holly. Himalaya.
 A shrub 6 feet high, 4 feet wide, hardy, in an
 exposed position.
***I. latifolia.** Tarafo. Japan.

ILICIAM FLORIDANUM

I. Pernyi. Central and W. China.

I. serrata. Japan.

Syn. **I. Sieboldii.**

I. verticillata. Black Alder Winterberry. E. North America.

ILLICTIUM. Anise Trees. **Magnoliaceæ.**

I. floridanum. Poison Bay. S. United States.

Height 5 feet. The Poison Bay is growing near a south wall, where it has stood six winters in the open, with slight protection. The flowers, which appear in May, are a dull maroon, and of a most curious shape.

***I. religiosum.** China and Japan.

IMPATIENS. **Geraniaceæ.**

†**I. Oliveri.**

INCARVILLEA. **Bignoniaceæ.**

I. Delavayi. China.

I. grandiflora. China.

INDIGOFERA. **Leguminosæ.**

I. decora, var. **alba.** China and perhaps Japan.

I. gerardiana. N.W. Himalaya.

Growing in an open position, where it flowers throughout summer and autumn. It is pruned each year.

I. gerardiana, var. **macrostachya.**

***I. hebeptala.** N.W. Himalaya.

INGA. See **CALLIANDRA.**

IONOPSIDIUM. **Cruciferæ.**

I. acaule. Violet Cress. Portugal, N. Africa.

IPOMÆA. **Convolvulaceæ.**

***I. Purga.** Jalap. Mexico.

IRIS. Iridaceæ.

I. foetidissima. Gladwyn Iris. Europe, Britain.

I. germanica. German Flag. Europe.

I. lævigata. Japanese Flag. Japan.

Syn. **I. Kaempferi.**

I. lævigata. Varieties.

I. pumila. Europe.

„ var. **atropurpurea.**

„ var. **cœrulea.**

I. Pseudacorus. Yellow Iris, Water Flag. Britain, etc.

I. sibirica. Europe, etc.

I. xiphioides. English Iris. Europe.

„ Garden varieties.

I. Xiphium. Spanish Iris. Europe.

„ Garden varieties.

ISMENE. See HYMENOCALLIS.**ITEA. Saxifragaceæ.**

***I. ilicifolia.** W. China.

I. virginica. E. United States.

IXIOLIRION. Amaryllidaceæ.

***I. montanum.** Persia, etc.

J**JABOROSA. Solanaceæ.**

J. integrifolia. Buenos Ayres.

JACARANDA. Bignoniaceæ.

†J. ovalifolia. S. America.

Syn. **J. mimosæfolia.**

JACOBINIA. Acanthaceæ.

†J. chrysostephana. Mexico.

JAMESIA. Saxifragaceæ.

J. americana. Rocky Mountains.

Height 5 feet. Flowers well in the Wall Garden.

J. americana, var. rosea. S. Nevada.

A small slow growing shrub, flowered for the first time in June, 1916, though grown in the open for six years at least.

JASMINUM. Oleaceæ.

J. floridum. China.

J. humile. S.E. Europe.

J. nudiflorum. China.

J. officinale. Common White Jasmine. Persia, N.W. India and China.

***J. primulinum.** W. China.

This evergreen jessamine grows rampantly on a south wall, and flowers ; though the tips are often cut by frost.

J. revolutum. Afghanistan and N.W. Himalaya.

JUGLANS. Walnut. Juglandaceæ.

J. regia. Common Walnut. E. Europe, Asia Minor to Afghanistan.

J. sieboldiana. Japan.

Height 26 feet, spread of branches 23 feet. Planted in the Lower Arboretum 1902.

JUNIPERUS. Juniper. Coniferæ.

J. bermudiana. Bermuda.

J. chinensis. Chinese Juniper. China, Mongolia and Japan.

J. chinensis, var. albo-marginata.

„ var. **aurea.** Young's Golden Juniper.

„ var. **glauca.**

„ var. **japonica.**

„ var. **pendula.**

J. communis. Europe to Kamtschatka.

„ var. **aurea.**

„ var. **compressa.**

Syn. **compacta nana.**

Height 2 feet 3 inches. A compact tree, which has grown in the Rock Garden some fifteen years.

J. communis, var. **fastigiata.** Irish Juniper.

Syn. **J. communis**, var. **hibernica.**

J. communis, var. **hibernica pyramidalis.**

„ var. **neoboriensis.**

J. drupacea. Syrian Juniper. Syria, etc.

Height 19 feet. Planted 1896.

J. excelsa, var. **stricta.**

J. occidentalis, var. **Burkei.**

J. phoenicea. Mediterranean region and Canaries.

J. recurva. Himalayan Juniper. Nepal.

J. rigida. Japan.

Height 11 feet. With pendulous branches.

Planted in the Pinetum about 1900.

J. Sabina. Common Savin. Mountains of Central and S. Europe.

J. Sabina. var. **tamariscifolia.** Spanish Savin.

J. squamata. Himalaya and China.

J. virginiana. Red Cedar. E. and Central United States and E. Canada.

J. virginiana, var. **bedfordiana.**

„ var. **elegans.**

„ var. **glauca.**

„ var. **pendula.**

„ var. **Schottii.**

„ var. **Triomphe d'Angers.**

„ var. **tripartita.**

J. wallichiana. Black Juniper. Himalaya.

Syn. **J. pseudo-sabina.**

K

KADSURA. Magnoliaceæ.

K. japonica. China and Japan.

Syn. *K. chinensis.*

KALANCHOE. Crassulaceæ.

†*K. flammea.* Somaliland.

†*K. kewensis.*

KALMIA. Ericaceæ.

K. angustifolia. Sheep Laurel, Sheepkill. E. North America.

K. glauca. Pale Laurel. E. North America.

K. latifolia. Calico Bush. E. North America.

KENNEDYA. Leguminosæ.

†*K. coccinea.* Australia.

†*K. prostrata.* Australia.

† ,, var. *Marryattæ.*

KENTIA. See **HOWEA.****KERRIA.** Rosaceæ.

K. japonica, var. fl. pl. China.

KLEINIA. Compositæ.

**K. repens.* S. Africa.

KNIGHTIA. Proteaceæ.

†*K. excelsa.* New Zealand.

KOELREUTERIA. Sapindaceæ.

K. paniculata. China.

Height 11 feet, spread of branches 11 feet. Planted in the Wall Garden 1901. The racemes of yellow flowers open in August.

KNIPHOFIA. Liliaceæ.

K. aloides. Cape of Good Hope.

„ var. **nobilis.**

***K. Northiæ.** S. Africa.

L**LABURNUM.** Leguminosæ.

L. Adami (**vulgare** × **Cytisus purpureus**). Purple Laburnum. Garden origin.

L. Vossii. Golden Rain. Garden origin.

Height 16 feet. A tree with very delicate racemes of flowers, planted about 1904.

L. vulgare. Common Laburnum, Golden Rain. Central and S. Europe.

L. vulgare, var. **Alschingeri.**

LACHENALIA. Liliaceæ.

†**L. tricolor.** S. Africa.

LAGERSTROEMIA. Lythraceæ.

†**L. indica.** Tropical Asia.

LANTANA. Verbenaceæ.

†Many garden varieties.

LAPAGERIA. Liliaceæ.

***L. rosea.** Chile.

Grown in the open where it flowers occasionally.

* „ var. **alba.**

LAPEYROUSIA. Iridaceæ.

L. cruenta. S. Africa.

A brilliantly coloured flower, easily raised from seed, which we have found quite hardy in an open border.

LARIX. Larch. **Coniferæ.**

L. americana. Tamarack. E. North America.

Height 18 feet. Planted in a somewhat damp position in the Pinetum 1898.

L. dahurica.¹ Saghalien, E. Manchuria and Siberia.

L. europæa, var. **pendula**.

L. Griffithii. Bhutan, Nepal and Sikkim.

L. leptolepis. Japanese Larch. Japan.

Height 41 feet. Planted in the Pinetum 1898.

L. Lyallii. Lyall's Larch. W. North America.

L. pendula,¹ (probably **americana** × **europæa**).

LATHYRUS. Leguminosæ.

L. grandiflorus. S. Europe.

L. latifolius. Common Everlasting Pea. Europe.

***L. pubescens.** Chile.

†**L. splendens.** Pride of California. California.

LAURELIA. Monimiaceæ.

†**L. Novæ-Zelandiæ.** New Zealand.

LAURUS. Lauraceæ.

L. nobilis. Bay Laurel, Sweet Bay. Mediterranean region.

LAVANDULA. Labiatæ.

†**L. dentata.** Mediterranean region.

Syn. **L. Stœchas.**

***L. pinnata.** Madeira.

L. vera. Lavender. S. Europe.

LAVATERA. Malvaceæ.

***L. arborea.** Tree Mallow. S. Europe, Great Britain.

***L. Olbia.** S. Europe.

¹ **L. pendula** and **L. dahurica** are now believed to be quite distinct—the former, a hybrid as stated. It occurs nowhere wild.

LEDUM. Ericaceæ.

L. latifolium. Labrador Tea. N. America, Greenland.

LEIOPHYLLUM. Ericaceæ.

L. buxifolium. Sand Myrtle. E. United States.

LEONOTIS. Labiatæ.

†*L. Leonurus.* Lion's Tail. Cape of Good Hope.

LEONTOPODIUM. Compositæ.

L. alpinum. Edelweiss. Alps.

LEPTINELLA. See **COTULA.****LEPTODERMIS.** Rubiaceæ.

L. sp. F. 260.

LEPTOSPERMUM. Myrtaceæ.

†*L. ericoides.* New Zealand.

†*L. flavescens.* Australia.

**L. lævigatum.* Australia.

Syn. *Fabricia lævigatum.*

Height 9 feet. It is a great pity that this is not hardier, for the leaves, which are the grey-green of olives, are most delicate and attractive. The plant we have at present in the open has stood two mild winters with slight protection; but a larger plant was killed by severe weather some four years ago.

†*L. pubescens.* Australia.

Syn. *L. lanigerum.*

**L. scoparium.* Australia, New Zealand and Tasmania.

Height 12 feet, diameter 9 feet.

* or †*L. scoparium*, var. *Boscaweni.*

* „ var. *Chapmani.*

* „ var. *Nairni.*

* „ var. *Nichollsii.*

L. scoparium and the varieties *Boscaweni* and *Nichollsii* have grown for two or three years now in the Wall Garden, with protection in winter. They are all nice bushy shrubs, and the delicate flower may be

found upon them most of the year round. *L. Boscaweni* seems the least hardy. It has been out of doors for two winters, but 10 degrees of frost this season damaged the late-growing, young shoots. *L. Nichollsii* seems much more likely to prove hardy in Sussex. The height is 8 feet, and its position is 6 feet from a wall. In the summer of 1915, we made an experimental bed for *Leptospermums* in an open position, though surrounded by a circle of protecting trees, sufficient to keep off the worst gales. After 19 degrees of frost, we found that *Nichollsii* and *Chapmani* were quite uninjured, though *Boscaweni* was severely damaged, while *flavescens* was killed.

L. Nairni, a young plant, was uninjured. The flowers of this last are like those of *Nichollsii*, but the foliage has great merit, and is almost the colour of the best forms of Purple Beech.

All our plants of *Nairni* were raised from seed sown two or three years ago.

LESPEDEZA. Bush Clover. Leguminosæ.

L. Sieboldii. N. China and Japan.

Syn. *Desmodium penduliflorum.*

LEUCOJUM. Snowflake. Amaryllidaceæ.

L. vernum. Spring Snowflake. Europe.

LEUCOTHOË (ANDROMEDA). Ericaceæ.

L. axillaris. S.E. United States.

L. Catesbæi. S.E. United States.

L. racemosa. S.E. United States.

LEWISIA. Portulacaceæ.

**L. Cotyledon.* California.

**L. Tweedyi.* California.

LEYCESTERIA. Caprifoliaceæ.

L. formosa. Himalaya.

LIBERTIA. Iridaceæ.

L. tricolor. New Zealand.

LIBOCEDRUS. Coniferæ.

L. chilensis. Chile.

Height 17 feet. A well furnished tree, planted in a sheltered corner of the Pinetum 1898. The tree looks in particularly good health, and, happily, has never suffered from frost here.

L. decurrens. Incense Cedar. Oregon and California.

Height 21 feet. Planted in the Pinetum 1898.

***L. doniana.** Chile.

Height 3 feet. A tender shrub, 20 years old, which, though sustaining little injury from frost, grows but slowly in the open air. It has been given a fairly sheltered position near the Shrub Houses.

†**L. macrolepis.** China.

†**L. sp.**

LIGUSTRUM. Privet. Oleaceæ.

L. coriaceum. Japan.

The neatest of shrubs, with dark, shining leaves. It has not flowered yet, though 4 feet high and perfectly hardy.

L. japonicum. Japanese Privet. N. China, Corea and Japan.

L. lucidum. China.

L. ovalifolium. Oval-leaved Privet. Japan.

„ var. **aureum.** Golden Privet.

L. sinense. Chinese Privet. China.

L. vulgare. Common Privet. Europe, Britain.

LILAC. See SYRINGA.**LILIUM. Liliaceæ.**

L. candidum. S. Europe, etc.

L. chalcedonicum. Greece.

L. croceum. S. Europe.

L. Henryi. China.

L. sulphureum. Burma.

L. testaceum. Garden origin.

L. tigrinum. China and Japan.

LINARIA. Scrophulariaceæ.

L. alpina. Europe.

L. Cymbalaria. Ivy-leaved Toadflax. Europe.

L. hepaticæfolia. Corsica, etc.

L. pallida. Italy.

LINDELOFIA. Boraginaceæ.

L. spectabilis. Himalaya.

LINDERA. Lauraceæ.

L. megaphylla. Central China.

**L. sericea.* Japan.

LINNÆA. Caprifoliaceæ.

L. borealis. Twin-flower. Europe, N.E. Britain.

LINUM. Linaceæ.

L. flavum. S. Europe, etc.

L. narbonense. S. Europe.

LIPPIA. Verbenaceæ.

**L. citriodora.* Lemon-scented Verbena. Chile.

LIQUIDAMBAR. Hamamelidaceæ.

L. styraciflua. Sweet Gum. E. United States.

A group of the Sweet Gum planted on the border of the Drive in 1903, now measures 17 feet in height.

LIRIODENDRON. Magnoliaceæ.

L. Tulipifera. Tulip Tree. E. North America.

A tree on the lawn: 51 feet high, girth $4\frac{1}{2}$ feet.

LITHOSPERMUM. Boraginaceæ.

L. prostratum. S. Europe.

„ var. *Heavenly Blue.*

L. purpureo-cœruleum. Europe.

**L. rosmarinifolium.* Italy.

LOBELIA. Campanulaceæ.

**L. cardinalis*. N. America.

LOMARIA. Filices.

L. alpina. S. Temperate Zone.

LOMATIA. Proteaceæ.

**L. ferruginea*. Chile.

Height 13 feet. A most ornamental tree, though it is not very hardy, and needs shelter and protection in winter. The leaves are evergreen and fern-like, and the rusty buds and branchlets give the name. It has grown well for the last three years, and though, when first planted it did not seem to thrive, it now looks most healthy.

LONICERA. Honeysuckle, Woodbine. Caprifoliaceæ.

L. Alberti. Turkestan.

L. etrusca, var. *pubescens*. Mediterranean region.

Syn. *L. etrusca*, var. *superba*, and *L. gigantea*, var. *superba*.

L. fragrantissima. China.

L. Henryi. China and Thibet.

†*L. hildebrandiana*. Burma.

L. japonica, var. *aureo-reticulata*. Japan.

L. Korolkowi. Turkestan.

A most graceful shrub, 4 feet high, native of Turkestan, planted in the open in 1913, flowered for the first time in 1916. The pale pink flowers are borne on slender pedicels among the glaucous green leaves, in June.

L. Maackii. Manchuria and W. China.

Two cuttings, struck about 1911 and planted in an open border, have formed a bush 10 feet high and 15 feet through. They flower well in June.

L. nitida. W. Szechuen and Yunnan.

L. pileata. China.

L. sempervirens. Trumpet Honeysuckle. S.E. United States.

L. syringantha. China.

L. thibetica. China and Thibet.

Height 6 feet, 12 feet through. A hardy shrub, covered in May and June with pink flowers on the upright shoots of the branches.

L. tragophylla. Chinese Woodbine. Hupeh.

LOPEZIA. Onagraceæ.

†**L. macrophylla.** Mexico.

LOROPETALUM. Hamamelidaceæ.

†**L. chinense.** China.

LOTUS. Leguminosæ.

†**L. Bertholetii.** Canary Islands.

Syn. **L. peliorhyncus.**

L. arboreus. California.

L. polyphyllus. California.

LYCHNIS. Caryophyllaceæ.

L. chalcedonica. Jerusalem Cress. Russia.

LYCIUM. Box Thorn. Solanaceæ.

L. chinense. Chinese Box Thorn. China.

L. pallidum. Fremont's Box Thorn. S.E. United States.

LYSIMACHIA. Loosestrife. Primulaceæ.

L. Nummularia. Creeping Jenny, Moneywort. Europe, Britain.

L. punctata. Europe, etc.

LYTHRUM. Purple Loosestrife. Lythraceæ.

L. Salicaria. Common Purple Loosestrife. N. Temperate regions.

M

MAACKIA. Leguminosæ.

M. amurensis. Manchuria, Corea and Japan.

Syn. **Cladrastis amurensis.**

A poor tree : possibly the soil is not congenial. It was planted in the Arboretum in 1902, but has made little headway.

MACLEANIA. Vacciniaceæ.

†**M. insignis.**

MACLURA. Urticaceæ.

M. aurantiaca. Osage Orange. S. and Central United States.

MAGNOLIA. Magnoliaceæ.

M. acuminata. Cucumber Tree. E. United States.

Height 26 feet. A fast-growing tree, planted in the Arboretum 1901.

M. Campbelli. Sikkim Himalaya.

Height 16 feet. A grafted plant, growing in the Wall Garden, has not yet reached its flowering stage.

M. conspicua. Yulan, Lily Tree. China.

M. Delavayi. Yunnan.

M. Fraseri. Fraser's Magnolia. S.E. United States.

Syn. **M. auriculata.**

M. glauca. Swamp Bay. E. United States.

M. grandiflora (Laurel Magnolia), var. **gloriosa.**

M. hypoleuca. China and Japan.

Height 24 feet. This very beautiful Magnolia flowered at Nymans for the first time in 1911, about six years after it was planted. It has never suffered from frost. The dark cream-coloured flowers, which scent the air, are produced on the lower as well as the upper branches.

M. Kobus. Japan.

Syn. **M. Thurberi.**

Height 8 feet. A healthy little tree, which flowers.

M. Lennei (**conspicua** × **obovata**). Garden origin.

**M. macrophylla*. S.E. United States.

M. obovata. China.

M. parviflora. Corea and Japan.

Height 6 feet, 11 feet through. Growing in a semi-shaded position in the Wall Garden.

M. rustica rubra.

M. soulangeana (*conspicua* × *obovata*). Garden origin.

„ var. *nigra*.

M. stellata. Japan, near Fujiyama.

Some fifty plants of *M. stellata*, which were planted along the drive in 1903, now form a group 61 feet long, the individual plants averaging 9 feet high. They flower in April, before the leaves appear, and, though frost sometimes damages their delicate petals, they make one of the finest groups of blossoming shrubs of the garden.

M. stellata, var. *rosea*.

M. tripetala. Umbrella Tree. E. United States.

Syn. *M. Umbrella*.

M. Van Houttei. Garden origin.

M. Watsoni. Japan or Corea.

MALLOTUS. Euphorbiaceæ.

**M. japonicus*. Central China and Japan.

MALVA. Malvaceæ.

Garden varieties.

MALVASTRUM. Malvaceæ.

**M. lateritium*. Uruguay.

MANDEVILLA. Apocynaceæ.

**M. suaveolens*. Argentina.

MANETTIA. Rubiaceæ.

†*M. luteo-rubra*. Brazil.

Syn. *M. bicolor*.

MARLEA. Cornaceæ.

M. platanifolia. China and Japan.

M. sp.

MARSDENIA. Asclepiadaceæ.

**M. erecta*. S.E. Europe and Asia Minor.

MAURANDIA. Scrophulariaceæ.

†*M. scandens*. Mexico.

MAYTENUS. Celastraceæ.

M. Boaria. Chile.

†*M. ilicifolia*. Brazil.

Flowers in a cool shrub house.

MEDICAGO. Leguminosæ.

**M. arborea*. Moon Trefoil. S. Europe.

MELALEUCA. Myrtaceæ.

**M. ericifolia*. Australia.

Melaleucas will grow with us in a sheltered position, if protected with mats in winter; but they never look really happy, even though two specimens have survived four or five mild winters, and are now 10 feet high.

†*M. hypericifolia*. Australia.

Will grow only in a cool house.

†*M. sp.*

MELIA. Meliaceæ.

**M. Azedarach*. India, China.

* ,, var. *floribunda*.

**M. japonica*. Japan.

MELIANTHUS. Sapindaceæ.

**M. major*. S. Africa.

This has been planted in the Quarry for four years, and needs a covering of ashes in winter. Frost cuts the old branches to the level of the ground, but new shoots spring from the base in May.

MELIOSMA. Sabiaceæ.

M. myriantha. Japan and Corean Archipelago.

A spreading shrub, 7 feet high and 14 feet through, with handsome foliage, but inconspicuous flowers. It has grown for some years in the Wall Garden, where we have found it hardy.

M. Veitchiorum. W. China.

A tree, now 11 feet high, planted in the Top Garden 1912. It is hardy, and growing in an open part of the garden. The leaves are large and handsome—vivid green upon the red petioles.

MENISPERMUM. Moonseed. Menispermaceæ.

M. canadense. Canadian Moonseed. E. North America.

MENTHA. Mint. Labiatae.

M. Requieni. Corsica.

MENYANTHES. Bog Bean. Gentianaceæ.

M. trifoliata. Common Bog Bean, Marsh Trefoil. North Temperate regions.

MENZIESIA. Ericaceæ.

M. pilosa. Alleghany Mountains.

Syn. **M. globularis.**

See also **DABOËCIA.**

MERYTA. Araliaceæ.

†**M. Sinclairi.** New Zealand.

MESEMBRYANTHEMUM. Fig Marigold. Ficoideæ.

†**M. cordifolium, var. variegatum.**

Several other species.

MESPILUS. Rosaceæ.

M. germanica. Medlar. Europe and Asia Minor.

See also **AMELANCHIER.**

METROSIDEROS. Myrtaceæ.

†*M. diffusa*. New Zealand.

†*M. lucida*. New Zealand.

Came from New Zealand as a small plant, and flowered here for the first time, in June, 1914. See *The Gardeners Chronicle*, June 27th, 1916. A small plant has spent the winter of 1915-16 in the open near the shelter of a south wall, and flowered in June, 1916.

†*M. robusta*. New Zealand.

Has not yet flowered, though it has grown in the Shrub House for some time, and is 7 feet in height.

†*M. tomentosa*. New Zealand.

MEUM, Baldmoney, Spiguel. Umbelliferæ.

M. athamanticum. Europe.

MICHELIA. Magnoliaceæ.

†*M. fuscata*. China.

MICROGLOSSA. Compositæ.

M. albescens. Himalaya.

Syn. *Amphiraphis albescens* and *Aster cabulicus*.

MIMULUS. Monkey Flower. Scrophulariaceæ.

†*M. glutinosus*. California.

Syn. *Diplacus glutinosus*.

†*M. glutinosus*, var. *coccineus*.

MISCANTHUS. Gramineæ.

M. gracillima.

M. sinensis, var. *zebrina*. Japan, etc.

Syn. *Eulalia japonica*, var. *zebrina*.

MITRARIA. Gesneraceæ.

**M. coccinea*. Chiloe.

9 feet high by 16 feet wide. A shade-loving plant grown on a north wall, with the protection of trees behind it, for about 6 years. The soft shoots are sometimes frozen, but the shrub itself appears hardy, and flowers in July.

MOLOPOSPERMUM. Umbelliferæ.

M. cicutarium. Europe.

MONARDA. Labiatæ.

M. didyma. Oswego Tea. North America.

MONSTERA. Araceæ.

†*M. deliciosa.* Mexico.

MORINA. Dipsacæ.

M. longifolia. Whorl-flower. Himalaya.

MORISIA. Cruciferæ.

M. hypogæa. Corsica and Sardinia.

MORUS. Mulberry. Urticacæ.

M. nigra. Common Mulberry. Orient.

MUEHLENBECKIA. Polygonacæ.

M. axillaris. New Zealand, Tasmania and Australia.

M. complexa. New Zealand.

MUSA. Musacæ.

**M. Basjoo.* Japanese Banana. Japan.

Syn. *M. japonica.*

In winter the stems of the banana are thatched with straw, and ashes are placed round the roots. In this way the plant both flowers and fruits in the open, though the fruit never ripens.

MUSCARI. Grape Hyacinth. Liliacæ.

M. botryoides. Europe, etc.

„ var. *Heavenly Blue.*

MUTISIA. Compositæ.

†*M. Clematis.* W. South America.

A beautiful climber in a cool house. The seeds with their feathery pappus are most attractive.

MYOPORUM. *Myoporineæ.*

†*M. lætum.* New Zealand.

MYOSOTIDIUM. *Boraginaceæ.*

**M. nobile.* Chatham Island Forget-me-not. Chatham Island.

MYOSOTIS. Scorpion Grass. *Boraginaceæ.*

M. dissitiflora. Early Forget-me-not. Switzerland.

M. palustris. True Forget-me-not. Europe, Britain.

MYRICA. Gale. *Myricaceæ.*

M. cerifera. Wax Myrtle. S.E. United States.

M. Gale. Sweet Gale, Bog Myrtle. Northern Hemisphere, higher latitudes, Great Britain.

See also **COMPTONIA.**

MYRICARIA. *Tamaricaceæ.*

M. germanica. Europe, Asia.

MYRSINE. *Myrsineæ.*

**M. africana.* Himalaya, China, Azores and Mountains of E. and S. Africa.

Here the staminate form of this little shrub grows more freely than the pistillate, though both remain of a dwarf habit. The berries are bright purple, and are found along the stems of the branches. They coloured here for the first time in the spring of 1916. (Figured from Nymans in *Botanical Magazine*, tab. 8712.)

**M. Urvillei.* New Zealand.

This shrub does not appear very hardy, though, with protection, it has survived two winters in the open, near a south wall. It was imported from New Zealand through Mr. Travers. The leaves are undulating, and, like the branches, are tinged with red. The whole plant has a compact, pyramidal growth.

MYRTUS BULLATA

MYRTUS. Myrtaceæ.**M. bullata.** New Zealand.

A plant known in Cornish gardens, but which is not hardy elsewhere. We grow it near a south wall, and the tips are sometimes damaged by frost, but the plant flowers well. The leaves are most attractive: seen from above, they look as if they were inflated like small air cushions. Our largest plant measures 6 feet high by 4 feet through, and was imported from New Zealand by Mr. Travers.

***M. Luma.** Chile.

11½ feet high, 9½ feet through. A fine bush of this Myrtle grows near a south wall. It required protection when young, but now seems fairly hardy and flowers well.

M. Ugni. Myrtilla. Chile.

We grow this Chilean Myrtle against an eight-foot wall. Several plants now cover a space of 30 feet and appear quite hardy. It flowers well, and the fruit, when ripe, is soft to eat and has a delicious flavour.

N

NANDINA. Berberidaceæ.**N. domestica.** China.**NARCISSUS.** Daffodil. Amaryllidaceæ.

Garden varieties.

NEILLIA. Rosaceæ.**N. amurensis.** Manchurian Nine Bark. Manchuria.**N. opulifolia.** Nine Bark. E. North America.,, var. **lutea.****NEPETA.** Cat Mint. Labiatae.**N. Glechoma** (Ground Ivy), var. **variegata.** Europe.**N. Mussini.** Caucasus.

NERINE. Amaryllidaceæ.

N. Bowdenii. Cape of Good Hope.

Has grown for four years in the border for bulbous plants. It flowers in November, and the bulbs increase in number each year.

†**N. curvifolia**, var. **Fothergillii major.** S. Africa.

NERIUM. Apocynaceæ.

†**N. Oleander.** Common Oleander. Orient.

NESÆA. Lythraceæ.

N. salicifolia. Tropical America.

Syn. **Heimia salicifolia.**

NEVIUSA. Rosaceæ.

N. alabamensis. Alabama Snow-wreath. Alabama.

An attractive shrub, with clusters of flowers, or rather stamens, at the tips of the branches. The stamens are white, unless spoilt by rain. In the Wall Garden.

NIEREMBERGIA. Solanaceæ.

N. rivularis. Argentina.

NOTHOFAGUS. Cupuliferæ.

N. antarctica. Antarctic Beech. Tierra del Fuego northwards to Chillan.

Height 10 feet. Hardy in an open position in the Top Garden.

***N. cliffortioides.** Mountain Beech. New Zealand.

Height 26 feet. A tree with evergreen leaves on spreading, wiry branches, which has grown for some years in the Wall Garden, and, so far, proved hardy.

***N. Cunninghami.** Cunningham's Beech. Tasmania.

Less hardy than *N. cliffortioides*, but grown in the open for two years, with protection in winter.

***N. fusca.** New Zealand.

Height 18 feet. A slender tree, so far hardy in a sheltered border of the Wall Garden. It sometimes makes a growth of 12 inches in a season. The leaves turn red before they fall.

**N. Menziesii*. New Zealand.

N. obliqua. Chile.

Planted 1915.

**N. Solanderi*. New Zealand.

A small tree planted as an experiment in the open, where it has spent two winters in a sheltered position in the Wall Garden.

NOTOSPARTIUM. Leguminosæ.

N. Carmichaeliæ. New Zealand (South Island only).

NUTTALLIA. Rosaceæ.

N. cerasiformis. Oso Berry. California.

NYMPHÆA. Water Lily. Nymphæaceæ.

N. alba. Common White Water Lily. North Temperate regions, Britain, etc.

N. tetragona. Himalaya.

Syn. *N. pygmæa*.

N. tetragona, var. *helvola*.

Hybrid varieties.

N. colossea.

N. gloriosa.

N. Laydekeri lilacea.

N. lucida.

N. marliacea albida.

N. marliacea carnea.

N. marliacea chromatella.

N. robinsoniana.

NYSSA. Cornaceæ.

N. sylvatica. Tupelo, Pepperidge. E. North America.

Height 18 feet. Planted in the Wall Garden 1906.

O

OCHNA. Ochnaceæ.

†**O. multiflora.** Tropical Africa.

Though coming from Tropical Africa, *O. multiflora* has grown for five years in the Shrub House, where the temperature sometimes falls to freezing-point. It flowers in June. The receptacle and calyx turn bright crimson, and, among the yellow flowers, look like flowers themselves.

ÆNOTHERA. Evening Primrose. **Onagraceæ.**

O. fruticosa. N. America.

O. missouriensis. N. America.

OLEA. Olive. **Oleaceæ.**

***O. europæa.** Wild Olive. Asia and Syria.

Height 12 feet. We have grown the Olive in a place sheltered by a south wall. The little tree now seems well established, though, so far, it has not flowered. It was cut down by frost several times when young.

OLEARIA. Daisy Bush. **Compositæ.**

***O. argophylla.** Musk Wood. Australia.

***O. Forsteri.** New Zealand.

Height about 9 feet. Hardy when grown upon a south wall. The foliage is very beautiful, resembling that of a *Pittosporum*.

†**O. furfuracea.** New Zealand.

O. Haastii. New Zealand.

***O. insignis.** New Zealand.

O. macrodonta. New Zealand.

***O. moschata.** New Zealand.

O. myrsinoides. Tasmania.

Two little plants of *O. myrsinoides*, about 1 foot high, are growing in the Wall Garden. The dark, evergreen leaves with their wavy margins make it a most attractive little bush.

***O. nitida.** New Zealand.

Height 9 feet, width 10 feet. *O. nitida* has grown into a large and somewhat straggling bush, which reaches the top of a south wall. It flowers every year, and needs no protection, though it was damaged by frost, for the first time, four or five years after being planted in the open.

O. nummulariifolia. New Zealand.**†O. semidentata.** New Zealand.**O. stellulata.** Tasmania.

Syn. *O. gunniana* and *Eurybia gunniana*.

O. virgata. New Zealand.

Height 11 feet. This is the true *virgata* with the four-angled stems. It is a wiry and attenuated shrub, unlike most *Olearias*. It has stood two winters in the open.

OMPHALODES. Navel-wort. **Boraginaceæ.****O. verna.** Creeping Forget-me-not. Europe.

„ var. *alba*.

ONONIS. Leguminosæ.**O. fruticosa.** S. Europe.**O. rotundifolia.** S. and Central Europe.**OPHIOPOGON.** Snake's Beard. **Hæmodoraceæ.****O. Jaburan,** var. *variegatus*. Japan.**O. japonicus.** Herb Turquoise. Japan.**OPLISMENUS.** Gramineæ.**†O. Burmanni,** var. *variegatus*. Tropics.

Syn. *Panicum variegatum*.

OPUNTIA. Cactaceæ.***O. arborescens.** S. United States.***O. arenaria.** N. Mexico.***O. braziliensis.** Brazil.

- ***O. camanchica.** S. United States.
- * " var. **major.**
- * " var. **minor.**
- * " var. **oligacantha.**
- * " var. **pallida.**
- * " var. **Ratti.**
- ***O. cervicornis.**
- ***O. cymochila.**
- * " var. **minor.**
- * " var. **palmerensis.**
- * " var. **Winteri.**
- ***O. decumana.** S. America.
 Syn. **O. maxima.**
- ***O. Engelmanni.** S. United States.
- ***O. fragilis.** N. America.
- * " var. **brachyarthra.**
- * " var. **brachyarthra flava.**
- ***O. leucotricha.** Mexico.
- ***O. mesacantha.** United States.
 Syn. **O. Rafinesquii.**
- ***O. mesacantha,** var. **arkansana.**
- * " var. **Greeni.**
- * " var. **polyacantha.**
- ***O. missouriensis.** S. United States.
 Syn. **O. polyacantha.**
- ***O. missouriensis,** var. **albispina.**
- ***O. phæacantha major.** Mexico.
- ***O. schumanniana.**
- ***O. Schwerini.** Colorado.

ORIXA. Rutaceæ.

- O. japonica.** China and Japan.
 Syn. **Celastrus japonica.**

ORNITHOGALUM. Star of Bethlehem. **Liliaceæ.**

- O. umbellatum.** Common Star of Bethlehem. Europe.

OSMANTHUS. Oleaceæ.**O. Aquifolium.** Japan.**O. Delavayi.** Yunnan.

Four little plants have grown in an open border now for some years, and have so far proved hardy. They are low-growing, spreading sometimes 6 feet in circumference. The white flowers appear among the dark foliage in September.

O. Fortunei (*Aquifolium* $\times$ *fragrans*). Japan.Syn. **O. ilicifolius.**

A rather tender, evergreen shrub, growing in a sheltered corner of the Lawn. The oldest bush measures 13 feet in height. Frost is apt to damage the young shoots of autumn growth.

†**O. fragrans.** China and Japan.**OSMUNDA.** Filices.**O. regalis.** Royal Fern. N. and S. Temperate region.**OSTEOMELES.** Rosaceæ.***O. Schwerinæ.** W. China.*Bot. Mag.*, T. 7354, **O. anthyllidifolia.**

Almost hardy, and flowering on a wall in the open ; but seen to greater advantage in the Cool House, where the white blossoms appear among the black fruit of a previous season.

OSTROWSKIA. Campanulaceæ.**O. magnifica.** Central Asia.**OSTRYA.** Hop Hornbeam. **Cupuliferæ.****O. japonica.** Japanese Hop Hornbeam. Japan.

A tree, planted in a field some ten or more years ago, is now 14 feet high, and has been found hardy. The young leaves are tinged with red.

OSTRYOPSIS. Corylaceæ.**O. davidiana.** N. China and Mongolia.

Height 9 feet. Planted in the Arboretum 1914.

OTHONNOPSIS. African Ragwort. **Compositæ.**

O. cheirifolia. Barbary Ragwort. Algeria.
Syn. *Othonna cheirifolia.*

OURISIA. **Scrophulariaceæ.**

O. coccinea. Chiloe.
O. macrophylla. New Zealand.

OXALIS. **Geraniaceæ.**

O. enneaphylla. Falkland Islands.
O. variabilis, var. *rubra.* S. Africa.

OXYCOCCUS. Cranberry. **Vacciniaceæ.**

O. macrocarpus. American Cranberry. E. North America.

OXYDENDRON. **Ericaceæ.**

O. arboreum. Sorrel Tree. E. North America.
Syn. *Andromeda arborea.*

OZOTHAMNUS. See **HELICHRYSUM.**

P

PACHYSANDRA. **Euphorbiaceæ.**

P. terminalis. Japan.
„ var. *variegata.*

PACHYSTIMA. **Celastraceæ.**

†*P. Canbyi.* N. Carolina and Virginia.

PÆONIA. Pæony. **Ranunculaceæ.**

P. albiflora. Siberia.
P. Moutan. Moutan or Tree Pæony. China.
„ Many imported varieties.
„ Many garden varieties.
P. officinalis. Common Garden Pæony. Europe.
„ var. *carnescens plena.*
„ var. *rosea plena.*

PANAX. Araliaceæ.

P. arboreum. New Zealand.

***P. sambucifolium.** Tasmania and Victoria.

Three trees, 8 feet high, planted in 1913, have grown in the open and flower in June. They have had no protection, but their hardiness is still questionable.

See also **ACANTHOPANAX.**

PANCRATIUM. Amaryllidaceæ.

P. illyricum (*Bot. Mag.* T. 718). S. Europe.

Has flowered in the open, where it has grown among other bulbous plants for four years. Several seedlings have been raised.

PAPAVER. Poppy. Papaveraceæ.

P. alpinum. Alpine and Arctic Europe.

P. nudicaule. Iceland Poppy. Alpine and Arctic regions.

P. orientale. Asia Minor.

„ Garden varieties.

PAROCHETUS. Leguminosæ.

P. communis. Blue-flowered Shamrock, Shamrock Pea. Himalaya.

PARROTIA. Hamamelidaceæ.

P. jacquemontiana. W. Himalaya.

Planted in a western border in the Top Garden and flowering in early spring.

P. persica. N. Persia to Caucasus.

Height 16 feet, 22 feet through. A somewhat straggling tree, planted by the New Drive 1903. The autumn colouring of red and yellow is very effective.

PARSONSIA. Apocynaceæ.

†**P. heterophylla.** New Zealand.

Syn. **P. albiflora.**

PASSIFLORA. *Passifloraceæ.*

**P. cœrulea.* S. Brazil.

* „ var. *Eynsford Gem.*

PAULOWNIA. *Scrophulariaceæ.*

P. Fargesii. Szechuen.

Height 13 feet. Planted in the Top Garden,
near the Quarry, 1911.

P. imperialis. China.

Syn. *P. tomentosa.*

PAVIA. See *ÆSCULUS.***PELARGONIUM.** *Geraniaceæ.*

†Many garden varieties.

PENNANTIA. *Olacineæ.*

†*P. corymbosa.* New Zealand.

Syn. *P. odorata.*

PENTAPTERYGIUM. *Vacciniaceæ.*

†*P. rugosum.* Himalaya.

†*P. serpens.* Himalaya.

A graceful shrub with pendant branches, growing in the Shrub House. It prefers a moist atmosphere, though it does not require heat in winter. The flowers are borne along the under sides of the branches.

PENTSTEMON. Beard Tongue. *Scrophulariaceæ.*

**P. campanulatus.* N. America.

„ Many garden varieties.

P. heterophyllus. W. North America.

PERAPHYLLUM. *Rosaceæ.*

P. ramosissimum. W. North America.

Though the flowers individually are beautiful, the plant, on the whole, does not grow happily with us.

PERIPLOCA. Asclepiadiaceæ.

P. græca. Silk Vine. S.E. Europe, Greece, etc.

PERISTROPHE. Acanthaceæ.

†*P. speciosa.* Himalaya.

PERNETTYA. Ericaceæ.

P. mucronata. Magellanic region.

See also **ARBUTUS.**

PEROWSKIA. Labiatae.

P. atriplicifolia. Himalaya and Afghanistan.

PERSEA. Lauraceæ.

†*P. gratissima.* Avocado Pear. S. America.

PETASITES. Butter Burr. Compositæ.

P. fragrans. Winter Heliotrope. Mediterranean region.

PETTERIA. Leguminosæ.

P. ramentacea. Dalmatian Laburnum. Dalmatia and Montenegro.

A hardy little shrub, growing in a warm and sunny border. It has yellow, pea-like flowers in August, on the ends of the shoots.

PHÆDRANASSA. Amaryllidaceæ.

**P. chloracra.* Ecuador.

Syn. *P. ventricosa.*

PHALARIS. Gramineæ.

P. arundinacea, var. *variegata.* Ribbon Grass.

PHELLODENDRON. Rutaceæ.

P. amurense. Amurland, Manchuria, etc.

P. chinense. W. China.

Height 8 feet. Planted in the new Arboretum 1914.

P. japonicum. China and Japan.

Height 17 feet. An attractive tree, with foliage like Wistaria. The flowers are most inconspicuous. Planted in the Wall Garden 1902.

P. sachalinense. Corea, Japan, Saghalien.

PHILADELPHUS. Mock Orange, Syringa. **Saxifragaceæ.**

P. coronarius. Mock Orange, Syringa. S.E. Europe and Asia Minor.

P. coronarius, var. **foliis aureis.**

„ var. **Monster.**

„ var. **Satsumi.**

A good species, native of Japan.

P. Falconeri. Japan, probably.

P. hirsutus. S.E. United States.

P. purpureo-maculatus. Garden origin.

P. Wilsoni. W. China.

Hybrid varieties.

Avalanche.

Candelabra.

Fantaisie.

PHILESIA. **Liliaceæ.**

P. buxifolia. S. Chile.

Succeeds admirably behind a north wall, where it flowers, and extends by underground suckers.

PELOMIS. **Labiatae.**

P. chrysophylla. Syria.

P. fruticosa. Jerusalem Sage. S. Europe.

P. samia. N. Africa.

P. viscosa. Syria.

Syn. **P. russelliana.**

PELOX. **Polemoniaceæ.**

Garden varieties.

PHŒNIX. Palmæ.

†*P. canariensis*. Canary Islands.

†*P. rupicola*. Himalaya.

PHORMIUM. Liliaceæ.

P. tenax. New Zealand Flax. New Zealand.

„ var. *Powerscourt*.

„ var. *variegatum*.

PHOTINIA. Rosaceæ.

P. serrulata. China.

An evergreen shrub, over 13 feet in height, planted in the Wall Garden about 1898. The young leaves are a beautiful red colour in spring, but, unfortunately, susceptible to frost.

P. villosa. China, Corea and Japan.

A slow-growing, grafted plant, measuring 13 feet high and 17 feet wide. The orange and red leaves in autumn are very effective.

See also **ERIOBOTRYA**.

PHUOPSIS. Rubiaceæ.

P. stylosa. Crosswort. Caucasus.

Syn. *Crucianella stylosa*.

PHYGELIUS. Scrophulariaceæ.

**P. capensis*. Cape Figwort. S. Africa.

PHYLLOCACTUS. Cactaceæ.

†Many garden varieties.

PHYLLOCLADUS. Taxaceæ.

**P. rhomboidalis*. Adventure Bay Pine. Tasmania.

Height $7\frac{1}{2}$ feet. Planted near the Shrub Houses 1904.

PHYLLODOCE. Ericaceæ.

P. empetriformis. W. North America.

Syn. *Bryanthus empetriformis*.

PHYLLOSTACHYS. Gramineæ.

P. aurea. Japan.

PHYTEUMA. Campanulaceæ.

P. orbiculare. Europe.

PHYTOLACCA. Phytolaccaceæ.

P. decandra. Virginian Pokeweed, Pigeon Berry, Red-ink Plant. Florida.

PICEA. Spruce. Coniferæ.

P. alba. White Spruce. N. America.

„ **var. cœrulea.**

„ **var. cœrulea variegata.**

P. alcockiana. Alcock's Spruce. Japan.

Height 15 feet. Planted in the Pinetum 1898.

P. asperata. W. China.

„ **var. nobilis.** W. China.

P. Engelmanni. Rocky Mountains.

„ **var. glauca.**

P. excelsa. Common Spruce, Norway Spruce. Mountainous parts of Central and N. Europe (not Britain).

P. excelsa, var. aurea.

„ **var. clanbrassiliana.**

„ **var. conica.**

„ **var. finedonensis.**

„ **var. monstrosa.**

„ **var. mutabilis.**

„ **var. pygmæa.**

„ **var. pyramidalis.**

„ **var. Remontii.**

„ **var. virgata.**

P. hondoënsis. Japan.

P. Maximowiczii. Japan.

P. Morinda. West Himalayan Spruce, Nectar, Honey of Flowers. W. Himalaya.

Syn. **P. smithiana.**

Height 59 feet. A fine tree, probably seventy years old, growing on the Lawn. The drooping branchlets from the boughs are some 4 feet in length.

P. nigra. Black Spruce. E. North America.

„ var. **Doumetti.**

P. obovata. Siberian Spruce. W. Central Asia, near the Thian Shan Mountains.

P. Omorika. Serbian Spruce. Serbia and Bosnia.

Height 24 feet. Planted in the Pinetum 1898.

P. orientalis. Oriental Spruce. Caucasus and Asia Minor.

Height 29 feet. Planted in the Pinetum 1898.

P. polita. Tiger-tail Spruce. Japan.

Height 18 feet. Planted in the Pinetum 1898.

P. pungens. Colorado, Utah and Wyoming.

„ var. **diversifolia.**

„ var. **glauca.** Blue Spruce.

Height 18½ feet. One of the most beautiful trees in the Pinetum, growing freely, and of an intense blue. Planted 1899.

P. purpurea. W. China.

P. schrenkiana. Region of Thian Shan Mountains.

P. sitchensis. Sitka Spruce. W. North America.

Syn. **P. Menziesii.**

Height 34 feet. Planted 1896.

PIERIS (ANDROMEDA). Ericaceæ.

P. floribunda. S.E. United States.

P. formosa. Himalaya.

Height 8 feet, width 12 feet. A tender shrub which flowers in the Wall Garden in May. The young leaves are suffused with red.

P. japonica. Japan.

P. mariana. E. United States.

PIMELEA. Thymelæaceæ.

†**P. ferruginea.** Australia.

†**P. rosea.** Australia.

†**P. spectabilis.** Australia.

PINGUICULA. Butterwort. Lentibulariaceæ.

P. vulgaris. Bog Violet, Butter-root. Europe, etc.

PINUS. Pine. **Coniferæ.**

P. albicaulis. White-bark Pine. W. North America.

P. aristata. Colorado, Nevada, Utah and California.

P. Armandii. Armand's Pine. W. China.

Height 7 feet. Planted 1910.

P. Ayacahuite. Mexican White Pine. Mexico.

P. balfouriana. Fox-tail Pine. California.

P. banksiana. Jack Pine. E. North America.

Height 26 feet. Planted 1896.

P. bungeana. Bunge's Pine, Lace-bark Pine. China.

***P. canariensis.** Canary Islands.

P. Cembra. Arolla Pine, Swiss Stone Pine. Alps and Siberia.

P. cembroides. Three-leaf Nut Pine. Arizona, Mexico and Lower California.

P. contorta. Beach Pine. W. North America.

P. Coulteri. Coulter's Pine. California.

Syn. **P. macrocarpa.**

Height 26 feet. A spreading tree, showing no signs of the premature decay common to the species in this neighbourhood. Planted 1898.

P. densiflora. Japanese Red Pine. Japan.

P. echinata. Eastern Yellow Pine. E. United States.

Syn. **P. mitis.**

P. edulis. Two-leaf Nut Pine. Colorado to New Mexico.

P. excelsa. Himalayan Blue Pine, Bhotan Pine. Himalaya.

Height 51 feet. The oldest tree here is on the Lawn. It must be seventy years old. The lower branches were lopped in 1893, and the tree has since made a new leader.

P. flexilis. Limber Pine. W. North America.

P. gerardiana. Gerard's Pine. Himalaya.

P. Greigii. Mexico.

P. halepensis. Aleppo Pine, Jerusalem Pine. Mediterranean region.

P. Hartwegi. Hartweg's Pine. Mexico.

P. Jeffreyi. Jeffrey's Pine. California.

- P. koraiensis.** Korean Pine. Korea, Manchuria, Japan, etc.

Height 16 feet. Planted 1899.

- P. lambertiana.** Sugar Pine. Oregon and California.

- P. Laricio.** Corsican Pine. Spain to Asia Minor.

Height 29 feet. Planted 1896.

- P. Laricio, var. nigricans.** Austrian Pine. S.E. Europe.
Syn. **P. austriaca.**

- P. Laricio, var. pallasiana.** Crimea, probably.

„ **var. pumila.** Garden origin.

Height 5 feet. Planted in the Pinetum 1896.

- P. Laricio, var. tenuifolia.** Pyrenean Pine. Pyrenees and Cevennes.

- P. leucodermis.** Bosnia, Herzegovina and Montenegro.

- P. montana.** Mountain Pine. Central and S. Europe.

„ **var. Mughus.** Central and S. Europe to Bulgaria and Serbia.

- P. muricata.** Bishop's Pine. California.

Height 26 feet. The tree has a distinct list, nevertheless it is growing well, and the branches bear the cones of fourteen seasons. Planted in the Pinetum 1896.

- P. palustris.** Pitch Pine (true). S.E. United States.

- P. parryana.** S. California and Lower California.

- P. parviflora.** Japanese White Pine. Japan.

Height 14 feet. A very attractive tree, though slow-growing. It has produced cones for some years. Planted in the Pinetum 1896.

- *P. patula.** Mexico.

Height 16 feet. Two specimens of this striking Pine have grown for some years in the western border of the Top Garden. They are sheltered from the north and east winds, and are doing well. The tips of the leaves are sometimes touched by frost, but the growth of the trees has never suffered.

- P. pentaphylla.** Japan.

- P. Peuke.** Macedonian Pine. Macedonia, Bulgaria and Montenegro.

Height 23 feet. A cone-bearing tree, planted 1896.

P. Pinaster. Cluster Pine, Maritime Pine. S. Europe (West of France to Greece).

Height 18 feet. Planted 1896.

P. Pinaster, var. Hamiltoni.

P. Pinea. Stone Pine. S. Europe, Spain and Portugal to Greece and Asia Minor.

P. ponderosa. Western Yellow Pine. W. North America.

P. pungens. Hickory Pine. E. North America.

P. radiata. Monterey Pine. Monterey, California.

Height 57 feet. A quick-growing tree, planted 1896.

P. rigida. Northern Pitch Pine. E. North America.

P. sabiniana. Digger Pine. California.

P. serotina. Pond Pine. N. Carolina to Florida.

P. Strobis. Weymouth Pine. E. North America.

P. sylvestris. Scotch Pine, Scotch Fir, etc. (Deal wood). Europe, Britain and Siberia.

P. sylvestris, var. argentea. Caucasus.

„ var. **beuvronensis.**

„ var. **globosa.**

Height 3 feet. Planted 1896.

P. sylvestris, var. nana.

Height $7\frac{1}{2}$ feet. Planted 1896.

***P. Teocote.** Mexico.

Height $11\frac{1}{2}$ feet. A tree much like *P. patula*, but with finer leaves. It has not yet borne cones. Planted in a sheltered corner of the Pinetum about 1910.

P. Thunbergii. Japan.

Height 12 feet. Planted in the Pinetum 1896.

***P. torreyana.** S. California.

P. virginiana. Jersey Pine, Scrub Pine. E. North America.

Syn. **P. inops.**

PIPTANTHUS. Leguminosæ.

P. nepalensis. Evergreen Laburnum. Himalaya.

PITTOSPORUM. Pittosporaceæ.

**P. eugenioides*. New Zealand.

†*P. floribundum*. India.

**P. tenuifolium*. New Zealand.

Syn. *P. Mayi*.

Height 12 feet. Wall Garden.

**P. Tobira*. Japan and China.

This shrub, which now measures 8 feet by 9 feet, flowers and fruits freely on a south wall. It is difficult to establish, but we have found the plants which prove hardiest are those grown from cuttings struck in a cool frame. These have done well in an open position.

**P. undulatum*. Australia.

Which needs a sheltered position, has grown into a bush 13 feet high and 11 feet through. It is planted under a Beech tree surrounded by tall Rhododendrons.

PLAGIANTHUS. Malvaceæ.

P. betulinus. New Zealand, S. Island.

Height 22 feet. *P. betulinus* has here reached the stage when it rises from the interlaced and drooping branches of its infancy to an erectly branched tree. It grows in the middle of the Wall Garden, and has no other protection. Though it flowers in May, the seeds have never formed.

P. Lyallii. New Zealand.

Syn. *Gaya Lyallii*.

We have two varieties of *P. Lyallii*, one with yellow, and the other with violet stamens. The former measures 12 feet high by 16 feet wide, the latter 16 feet by 14 feet. They flower profusely, but, even in the shelter of a south wall, have not produced seed.

PLATANUS. Plane. Platanaceæ.

P. orientalis. Oriental Plane. S.E. Europe and Asia Minor.

PLATYCODON. Campanulaceæ.

P. grandiflorum. Chinese Bell-flower. China and Japan.

PLEROMA. See **TIBOUCHINA.**

PLUMBAGO. *Plumbaginaceæ.*

†*P. capensis.* S. Africa.

†*P. rosea.* India.

See also **CERATOSTIGMA.**

PODOCARPUS. *Taxaceæ.*

P. alpina. Victoria and Tasmania.

An almost prostrate shrub, grown for years in the Rock Garden.

†*P. dacrydioides.* New Zealand.

†*P. ferruginea.* New Zealand.

Height 11 feet. Imported from New Zealand, and grown in the Shrub House for seven years, but not yet tried in the open.

P. macrophylla. Japan.

„ var. *Maki.* China and Japan.

„ var.

†*P. spicata.* New Zealand.

Syn. *Prumnopitys spicata.*

P. Totara. New Zealand.

Height 7 feet. It grows freely and is apparently hardy. Planted in the Pinetum 1903.

PODOCYTISUS. See **LABURNUM.**

POLEMONIUM. Jacob's Ladder. *Polemoniaceæ.*

P. cœruleum. Jacob's Ladder. N. Temperate regions.

POLIOTHYRSIS. *Bixaceæ.*

P. sinensis. China.

Height 7 feet. Planted in the Arboretum 1914. It survived previous winters in the nursery without protection.

POLYGALA. *Polygalaceæ.*

P. Chamæbuxus. Milkwort. Central Europe.

„ var. *purpurea.*

†*P. mixta.*

POLYGONATUM. Solomon's Seal. **Liliaceæ.**

P. multiflorum. Common Solomon's Seal. Europe, etc.

POLYGONUM. Polygonaceæ.

P. affine. Himalaya.

Syn. **P. Brunonis.**

P. Auberti.

P. baldschuanicum. Bokhara.

P. Bistorta. Bistort, Snakeweed. Northern regions.

P. chinense. China, etc.

Syn. **P. cymosum.**

P. cilinode. N. America.

P. cuspidatum. Japan.

Syn. **P. Sieboldii.**

P. multiflorum. China and Japan.

P. polystachyum. Himalaya.

P. sachalinense. Sachalin.

P. sericeum.

P. vaccinifolium. Himalaya.

POLYPODIUM. Filices.

P. vulgare. Britain.

„ var. **omnilacerum.** Britain.

POMADERIS. Rhamnaceæ.

***P. apetala.** Victorian Hazel. Australia.

Height 8 feet. Hardly worth growing: the flowers are inconspicuous, and the frost of 1912 cut the plant to the ground, even on a south wall.

†**P. elliptica.** Australia, Tasmania and New Zealand.

POPULUS. Poplar. **Salicaceæ.**

P. alba. White Poplar. Europe.

Height 55 feet. Planted in the Arboretum about 1895.

P. lasiocarpa. Central China.

This tree, recently introduced from China, measures 11 feet in height. Some leaves are 9

inches across. It is growing in an open position in the Top Garden, and is seemingly hardy.

P. nigra. Black Poplar. Europe.

„ var. **Thevestina.**

P. serotina. Black Italian Poplar. France. (Garden origin).

P. serotina, var. **aurea.**

P. szechuanica.

Height 8 feet. Planted in the Arboretum 1914.

P. Wobstii (probably **tristis** $\times$ **laurifolia**). Garden origin.

POTENTILLA. Cinquefoil. **Rosaceæ.**

P. chinensis. China.

P. Friedrichseni (**davurica** $\times$ **fruticosa**). Garden origin.

P. fruticosa. Shrubby Cinquefoil. N. Hemisphere of New and Old Worlds.

P. salesoviana. Siberia.

P. nepalensis, var. **Miss Willmott.**

„ Other varieties.

PRATIA. Campanulaceæ.

***P. angulata.** New Zealand.

PRIMULA. Primulaceæ.

P. Auricula. Bear's Ears, Common Auricula. Europe.

P. bulleyana. China.

P. capitata. Himalaya.

P. cockburniana. China.

P. denticulata. Himalaya.

„ var. **cashmeriana.** Himalaya.

P. farinosa. Bird's-eye Primrose. Northern regions.

P. Forrestii. China.

P. frondosa. Thrace.

P. japonica. Japanese Primrose. Japan.

P. marginata. Alps of Dauphiny and Piedmont.

P. pulverulenta. China.

- P. rosea.* Himalaya.
P. sikkimensis. Himalaya.
P. viscosa. Europe.
P. vulgaris. Primrose. Britain.
 „ Garden forms.

PRINSEPIA. Rosaceæ.

- P. sinensis.* Manchuria.
 Syn. *Plagiospermum sinensis.*

PROSTANTHERA. Australian Mint Bush, Mint Tree. Labiatæ.

- †*P. lasianthos.* Victorian Dogwood. Australia.
 †*P. rotundifolia.* Australia.

PRUMNOPITYS. Taxaceæ.

- P. elegans.* Chile.
 Syn. *Podocarpus andina.*
 Height 18 feet. Planted 1898. Greatly damaged
 by snow and wind in 1916, when one half of the
 tree was broken. Pinetum.

PRUNUS. Rosaceæ.

- P. acida.* E. Europe, probably.
 var. *semperflorens.* All Saint's Cherry.
 Origin unknown.
 A tree, 14 feet high, making new growths from
 June throughout the summer, and flowering at the
 tips of the shoots.
P. Amygdalus. Almond. S. Europe, Levant, or Algeria
 only.
P. Avium. Gean, Mazzard. Europe, Britain.
 „ var. *flore pleno.*
P. cerasifera, var. *blireiana.* Cherry Plum, Myrobalan.
 Syn. *P. blireiana.*
P. cerasifera, var. *Pissardi.* Persia.
 Syn. var. *atropurpurea* and *P. Pissardi.*

P. cerasifera, var. **Moseri**.

Height 9 feet, 17 feet through. A spreading bush with bronze foliage and large pink flowers.

P. Cerasus. Wild Dwarf Cherry. Europe, Britain.

„ var. **Drumreiske**.

„ var. **fl. pl.**

P. davidiana. David's Peach. China.**P. Laurocerasus**. Cherry Laurel, Common Laurel.
E. Europe and Asia Minor.**P. Laurocerasus**, var. **rotundifolia**.

„ var. **Zabeliana**.

P. lusitanica, Portugal Laurel. Spain and Portugal.

„ var. **azorica**. Canaries and Azores.

P. Mahaleb. St. Lucie Cherry. Central and S. Europe.

A tree, now 17 feet high and 13 feet through, planted about 1904.

P. Mume. Japanese Apricot. Corea and perhaps China.

Height 20 feet, 27 feet through. Hardy in a sheltered corner of the garden. Frost often prevents the buds developing, but in March, 1915, and February, 1916, the tree was covered with pink blossoms.

P. nana. Dwarf Russian Almond. S. Russia and S.E. Europe.

Syn. **Amygdalus nana**.

A charming little shrub which flowers in May, and spreads itself by its suckers. We had no success with it until we were able to get plants on their own roots.

P. Padus. Bird Cherry. Europe, Britain, etc. to Japan.
Syn. **Cerasus Padus**.**P. pendula**. Rosebud Cherry. Japan.**P. persica**. Peach. China, probably.

„ var. **alba fl. pl.**

„ var. **flore roseo pleno**.

„ var. **foliis rubris**.

P. Sieboldii. Japanese Cherry. Japan.

Syn. **P. pseudocerasus**, var. **Watereri**.

P. serrulata, var. **fl. pl.**

Height 20 feet. Planted 1901.

P. serrulata, var. **pendula**. Garden origin.

„ var. **veitchiana**. Garden origin.

Height 16 feet. A grafted tree, with bronze leaves and large, pink flowers.

P. Simoni. Apricot Plum. China.

P. spinosa. Sloe, Blackthorn. Europe, Britain and N. Asia.

P. spinosa, var. **fl. pl.** Tarascon.

„ var. **Hessei**.

„ var. **purpurea**.

P. subhirtella. Japan.

„ var. **autumnalis**. Japan.

Syn. **P. Miqueliana**.

P. triflora. Japanese Plum. China.

P. triloba. China.

PSEUDOLARIX. Coniferæ.

P. Fortunei. Golden Larch. Japan.

Syn. **P. Kaempferi**.

Height 11 feet. A low, spreading tree, particularly attractive in autumn.

PSEUDOPANAX. Araliaceæ.

†**P. ferox**. New Zealand.

PSEUDOTSUGA. Coniferæ.

P. Douglasii. Douglas Fir. W. North America, on the coast.

P. Douglasii, var. **glauca**. Colorado Douglas Fir. W. North America, on the mountains inland.

PSORALEA. Leguminosæ.

†**P. pinnata**. S. Africa.

PTELEA. Rutaceæ.

P. trifoliata. Hop Tree. S. Canada and E. United States.

Several plants have been raised from the beautiful seeds, which remind one of the delicate design of the cocks of old verge watches. The original tree was planted about 1904, and measures 12 feet high by 14 feet through.

PTEROCARYA. Wing-nut. **Juglandaceæ.**

P. caucasica. Caucasian Wing-nut. Caucasus.

Syn. **P. fraxinifolia.**

Height 23 feet. Planted in the Lower Arboretum
1902.

PTEROSTYRAX. **Styraceæ.**

P. hispidum. China and Japan.

Syn. **Halesia hispida.**

PUERARIA. **Leguminosæ.**

P. thunbergiana. China and Japan.

PULMONARIA. **Boraginaceæ.**

P. officinalis. Common Lungwort. Europe.

PUNICA. **Lythrarieæ.**

***P. Granatum.** Pomegranate. Persia and Afghanistan.

PYRACANTHA. **Rosaceæ.**

P. angustifolia. W. China.

P. coccinea. Pyracanth, Buisson Ardent. S. Europe
and Asia Minor.

Syn. **Cratægus Pyracantha.**

P. Gibbsii. W. China.

PYROLA. Winter Green. **Ericaceæ.**

P. rotundifolia. N. Temperate regions, Britain.

PYRUS. **Rosaceæ.**

P. arbutifolia. Chokeberry. E. North America.

P. Aucuparia. Mountain Ash, Rowan. Britain, etc.

P. floribunda. Japan.

„ var. **arnoldiana.**

„ var. **atrosanguinea.**

„ var. **Bechtel.**

P. halliana. Origin uncertain.

Syn. **Malus halliana.**

- P. ioensis**, var. **fl. pl.** The Bechtel Crab. Garden origin.
- P. Malus**. Crab Apple. W. Europe and N. Asia.
- P. melanocarpa**. Black Chokeberry. E. North America.
Syn. **P. nigra**.
- P. niedzwetzkyana**. Caucasus.
- P. pinnatifida** (**intermedia** $\times$ **Aucuparia**). Bastard Service Tree. N. and Central Europe.
Height 7 feet. Imported from Messrs. Meehan, Philadelphia, U.S.A., 1912.
- P. salicifolia**, var. **pendula**. Willow-leaved Pear.
Height 13 feet, 13 feet through. A graceful, silver bush, growing near the Quarry. The flowers and leaves appear at the same time.
- P. Scheideckeri** (**spectabilis** ? $\times$ **floribunda**). Garden origin.
- P. Sorbus**. Service Tree. S. and E. Europe.
- P. spectabilis**. N. China.
„ var. **Parkmanni**.
- P. thianshanica**. Central Asia.
Height 9 feet. Planted in the Arboretum 1908.
- P. vestita**. Himalayan Whitebeam. Himalaya.
Height 14 feet. Planted in the Arboretum 1904.
- P. Vilmorini**. W. China.
A small tree, hardy, and with most attractive foliage. Planted 1913.
- P. sp. Wilson**.

Q

QUERCUS. Oak. **Cupuliferæ**.

- Q. acuta**. Japan.
Height 10 feet. Planted in the Lower Arboretum 1906.
- Q. Cerris**. Turkey Oak. S. Europe and Asia Minor.
„ var. **longifolia nova**.
„ var. **variegata**.

- Q. coccifera.** Kermes Oak, Grain Tree. Mediterranean region.

The acorns, which are the home of the *Chermes ilicis*, never develop fully at Nymans. The tree is healthy, and some 5 feet in height.

- Q. coccinea.** Scarlet Oak. E. North America.

Height 31 feet. Planted in the Lower Arboretum 1902.

- Q. conferta.** Hungarian Oak. S.E. Europe.

Height 15 feet. Planted in the Lower Arboretum 1906.

- Q. crispula.** Japan.

Height 14 feet. Planted in the Lower Arboretum 1906.

- Q. cuneata.** Spanish Oak. E. and S. Central United States.

Syn. **Q. falcata.**

Height 10 feet. Planted in the Arboretum 1914.

- Q. cuspidata.** China and Japan.

- Q. dentata.** Daimyo Oak. Japan and Corea.

Syn. **Q. Daimio.**

- Q. Ilex.** Holm Oak. Mediterranean region.

- Q. lucombeana (Cerris × Suber).** Lucombe Oak. Garden origin.

Height 11 feet. Planted in the Lower Arboretum 1912.

- Q. macedonica.** Macedonian Oak. S.E. Europe.

Height 3 feet. Planted in the Arboretum 1915.

- Q. marylandica.** Black Jack Oak. E. United States.

- Q. nigra.** Water Oak. S. United States.

- Q. palustris.** Pin Oak. E. United States.

Height 15 feet. Planted in the Lower Arboretum about 1910.

- Q. pedunculata.** Common Oak. Britain, Europe, Caucasus and Asia Minor.

- Q. pedunculata, var. Concordia.** Golden Oak.

„ var. **purpurascens.**

- Q. Phellos.** Willow Oak. E. United States.

Height 3 feet. Planted in the Arboretum 1914.

Q. sessiliflora, var. **mespilifolia**.

Height 7 feet. Planted in the Lower Arboretum 1912.

Q. Suber. Cork Oak. S. Europe and N. Africa.

Height 10 feet. Planted in the Lower Arboretum 1906.

QUILLAJA. Rosaceæ.

***Q. Saponaria**. Soap Bush, Soapwort. Chile.

QUINTINIA. Saxifragaceæ.

†**Q. serrata**. New Zealand.

R**RAMONDIA**. Gesneraceæ.

R. pyrenaica. Rosette Mullein. Pyrenees.

R. serbica, var. **Nathaliæ**. Serbia.

RANUNCULUS. Ranunculaceæ.

R. aconitifolius, fl. pl. Fair Maids of France. Europe.

See also **CALLIANTHEMUM**.

RAPHIOLEPIS. Rosaceæ.

***R. indica**. China.

Syn. **R. salicifolia**.

Height 5 feet 9 inches. A more beautiful shrub than *R. japonica*: it is also more tender; but, nevertheless, has flourished in the Wall Garden for nearly six years.

R. japonica. Japan and Corea.

Height 4 feet, diameter 11 feet. Hardy in the Wall Garden.

***R. japonica**, var. **Delacouri**.

Height 6 feet, diameter 4 feet. Grown also in the Wall Garden, for three years, without protection.

RESTIO. Restiaceæ.

†**R. subverticillatus**. S. Africa.

RHAMNUS. Rhamnaceæ.

R. caroliniana. Indian Cherry. E. United States.

R. fallax. Carniolian Buckthorn. Alps of S.E. Europe.

R. imeritina. W. Caucasus.

R. purshiana. W. North America.

RHAPHITHAMNUS. Verbenaceæ.

***R. cyanocarpus.** Chile.

Has grown on the west wall for some years. It is not very hardy, and late-growing shoots are often damaged by frost.

RHODODENDRON. Ericaceæ.

R. altaclerense (*arboreum* × *ponticum*). Garden origin.

R. ambiguum. W. China.

R. amœnum. Japan.

Syn. **R. indicum**, var. **amœnum** and **Azalea amœna**.

R. Anthopogon. Himalaya.

R. arboreum. Himalaya.

„ var. **album**.

„ var. **Campbelliæ**.

„ var. **kermesinum**, blood-red.

„ var. **seedling**.

R. Augustinii. Hupeh, China.

R. azaleoides. Garden origin.

Syn. **R. fragrans** and **R. odoratum**.

R. barbatum. Himalaya.

Height 9 feet. *R. barbatum* flowered in February, 1916, and over a hundred blossoms were counted on a plant growing between a belt of trees and a north wall. The open flowers were damaged by frost, but not the buds. A plant in a more open position in the Wall Garden flowered a little later.

R. barbatum carneum.

Height 8 feet, 9 feet through. A pink form of *R. barbatum*, lacking on the stalk the bristles of the parent plant. It is hardy, and growing in a shaded position.

†**R. Boothii.** Bhotan.

R. brachycarpum. Japan.

RHODODENDRON CAMPYLOCARPUM

R. Broughtonii, var. **aureum** (Rhod. $\times$ Azalea). Garden origin.

Differing from *R. Smithii aureum* in the under side of the leaf, but both flower equally well and grow in a shaded corner.

R. calendulaceum. E. North America.

R. calophytum. W. China and Thibet.

R. campanulatum, var. **Wallichii**.

R. campylocarpum. Sikkim.

Height $6\frac{1}{2}$ feet, 8 feet through. Fairly hardy, and flowering with the greatest profusion. It has grown for some years between a belt of trees and a wall, where it gets the sun for only part of the day.

R. catawbiense, var. **fastuosum**, fl. pl. Garden origin.

R. chrysanthum. Siberia and N.E. Asia.

A rather rare Siberian shrub, which is not yet a foot high, although quite ten years old. It has never flowered, although it seems healthy.

R. ciliatum. Himalaya.

R. cinnabarinum. Himalaya.

Height 7 feet.

R. cinnabarinum, var. **blandfordiæflorum**.

„ var. **Roylei**.

Height 7 feet, 5 feet through. The largest plant of Roylei has grown in the open for ten years. It flowers well and has never been injured by frost.

†**R. Dalhousiæ**. Himalaya.

R. decorum. W. China.

†**R. Edgeworthii**. Himalaya.

R. Falconeri. Himalaya.

Flowered for the first time in 1913, in a sheltered position on the Lawn. It seems well established and fairly hardy, and measures 9 feet in height, the branches having a spread of 5 feet. Three smaller plants are growing in the Wall Garden.

R. Falconeri, var. **eximium**.

R. ferrugineum. Alpine Rose, Rose des Alpes. Alps.

„ var. **album**. Garden origin.

„ var. **myrtifolium**. Alps of Austria.

- R. flavidum.** W. Szechuen.
Syn. **R. primulinum.**
- R. flavum.** Caucasus.
Syn. **Azalea pontica.**
- R. floribundum.**
- R. fulgens.** Nepal and Sikkim.
Height 5 feet, 6 feet through. Grows vigorously,
and flowers well in early spring.
- R. glaucum.** Bhotan and Sikkim.
- *R. griffithianum.** Bhotan and Sikkim.
Syn. **R. Aucklandii.**
- R. griffithianum,** var. **roseum** (**griffithianum** $\times$ **arboreum**).
Garden origin.
- R. hanceanum.** W. China.
- R. hirsutum.** Rose des Alpes. Alps.
„ var. **albiflorum.** Alps.
- R. indicum.** China, Japan and Burma.
- *** „ var. **balsaminæflorum.** Garden origin.
Syn. **Azalea rosæflora.**
- R. indicum,** var. **fosterianum.** Garden origin.
„ var. **Hexe.** Garden origin.
„ var. **Hinodegerii.** Garden origin.
„ var. **Mikado.** Garden origin.
- *** „ Several other varieties.
- R. intricatum.** W. China.
- R. irroratum.** China.
- R. Kaempferi.** Japan.
Syn. **Azalea indica,** var. **Kaempferi** and **R. Sieboldi.**
- R. Keiskei.** Japan.
- R. kewense.** Garden origin.
- *R. Keysii.** Bhotan.
With its curious, tubular, scarlet flowers, is fairly
hardy, and the plant growing in the Wall Garden
measures 6 feet high by 8 feet through. A smaller
plant flowered extraordinarily well in May, 1916.
- R. kingianum.** Manipur.
- R. lacteum.** W. China.
- †R. lanatum.** Sikkim.
- R. ledifolium.** China, Corea and Japan.

- R. lepidotum.** Nepal and Sikkim, China.
- *R. linearifolium.** Japan.
- R. Loder's White.** Garden origin.
- R. Luscombei (Fortunei × Thomsoni).** Garden origin.
- *R. lutescens.** W. China and Thibet.
- †R. Maddeni.** Sikkim.
- R. Manglesii (griffithianum × album elegans).** Garden origin.
- R. Metternichii.** Japan.
- R. molle.** Japan.
Syn. *Azalea mollis*.
- R. moupinense.** Thibet and W. China.
Planted 1914.
- R. nobleanum (caucasicum × arboreum).** Garden origin.
- †R. Nuttalli.** Himalaya.
Height 8 feet. Grown in the Shrub House for eight years, and flowering in June, 1916, for the first time. The bare stem is 5 feet high, crowned by the long leaves and trumpets of cream-coloured flowers.
- R. occidentale.** W. North America.
,, var. *exquisita*. Garden origin.
,, var. *magnifica*. Garden origin.
,, var. *superba*. Garden origin.
- R. oleifolium.** W. China.
- †R. oxyphyllum.** W. China and Burma.
- R. polylepis.** W. China.
- R. ponticum.** Asia Minor, Spain and Portugal.
- R. præcox (ciliatum × dauricum).** Garden origin.
- R. racemosum.** W. China.
- R. Rhodora.** E. North America.
Syn. *Rhodora canadensis*.
- R. rhombicum.** Japan.
Syn. *Azalea rhombica*.
Height 4 feet. Has grown in an open and sunny position for some years, and flowers.
- R. rotundifolium.** Szechuen.
Syn. *R. orbiculare*.
Height 2½ feet. A compact, robust and perfectly hardy little plant, with a diameter of 4 feet. It

bears, in May, campanulate pink flowers, which make a charming contrast to the light green leaves.

****R. rubiginosum.** Yunnan.

R. Schlippenbachii. Corea, Manchuria, etc.

Height $2\frac{1}{2}$ feet. A small plant, growing in the Wall Garden, in the shade of some apple trees, but having no further protection in winter. It flowers, somewhat sparingly, in late April and early May.

R. serpyllifolium. Japan.

***R. sesterianum (ciliatum $\times$ Edgeworthii).** Garden origin.

A tender shrub, with the pure white flowers of *Edgeworthii*, flowering in shade in late May. Frost occasionally takes toll of the buds. It grows in much the same way as *Daphne blagayana*, the branches drooping and trailing along the ground, layering themselves wherever possible.

R. Shilsoni (barbatum $\times$ Thomsoni). Garden origin.

R. sinense. Many varieties.

R. Smirnowi. S. Caucasus.

R. Smithii aureum (Rhod. seedling $\times$ sinense). Garden origin.

R. Souliei. W. China.

R. strigillosum. Thibet and W. China.

***R. sublaceolatum.** Japan.

R. Thomsoni. Nepal and Sikkim.

R. triflorum. Himalaya.

R. Vaseyi. N. and S. Carolina.

R. Wilsoni (ciliatum $\times$ glaucum). Garden origin.

R. yunnanense. W. China.

Height 6 feet, diameter 8 feet. This *Rhododendron* may grow 18 inches in one season. It is quite hardy, and is covered with flowers in May.

****R. sp. Forrest.**

****R. sp.** From Central China.

****R. sp.**

****R. sp. 6776.**

****R. sp. 6779 Wilson.**

****R. sp. 7463.**

****R. sp. 8923.**

RHODODENDRON KEYSII

Rhododendron hybrids.

- R. Aida.
- R. Alice.
- R. Anthony Koster.
- *R. Beauty of Tremough.
Although the shrub grows in a sheltered place, the flower buds are often damaged by frost, and it has only flowered really well on one or two occasions.
- R. B. W. Currie.
- R. Coombe Royal.
- R. Coriaceum.
- R. Cunningham's Blush.
- R. Delicatissimum.
- R. Diamond.
- R. Doncaster.
- R. Dr. Reichenbach.
- R. Dr. Stocker (*caucasicum* $\times$ *griffithianum* ?).
Hardy, growing in a semi-shaded position, bearing large white flowers in May.
- R. Duchess of Connaught.
- R. Duke of Wurtemberg.
- R. Earl Roberts.
- R. Fanny.
- R. F. B. Hayes.
- R. Florodora.
- R. Fred Waterer.
- R. Gauntlettii.
- *R. Gill's Triumph.
- R. Gloria Mundi.
- *R. Glory of Penjerrick.
- R. Goliath.
- R. Gomer Waterer.
- R. Helen Waterer.
- R. Il Tasso.
- R. J. H. Agnew.
- R. John Waterer.
- R. Kate Waterer.

- R. Lady Clementine Mitford.
- R. Lady E. Cathcart.
- R. Lady Strangford.
- R. Madame A. Koster.
- R. Maggie Heywood.
- R. Marchioness of Lansdowne.
- R. Mécène.
- R. Minnie.
- R. Mrs. George Hardy.
- R. Mrs. H. Shilson.
- R. Mrs. R. S. Holford.
- R. Norma.
- R. Phœbe.
- R. Pink Pearl.
- R. Queen.
- R. Raphael de Smet.
- R. Sappho.
- R. Sir J. Whitworth.
- R. Strategist.
- R. Velasquez.
- R. Woolarii.

Other varieties, old and new, unidentified.

RHODORA. See **RHODODENDRON.**

RHODOSTACHYS. See **FASCICULARIA.**

RHODOTYPOS. Rosaceæ.

R. kerrioides. China and perhaps Japan.

Height 9 feet, 14 feet through. A large bush, growing in a semi-shaded position on an east wall. The shiny, black fruit remains on the branches throughout the winter, and until the white blossoms appear.

RHUS. Sumach. **Anacardiaceæ.**

R. cotinoides. Chittam Wood. S.E. United States.
6 feet high by 7 feet through.

R. Cotinus. Venetian Sumach. Central and S. Europe to Himalaya.

R. Cotinus, var. atropurpurea.

R. glabra. Smooth Sumach. E. United States.

R. Osbeckii. China and Japan.

Height 9 feet. A spreading shrub, in an open position.

R. Potaninii. N. China.

Height 12 feet. Planted in the Arboretum 1913.

R. Toxicodendron. Poison Ivy. N. America.

R. typhina. Stag's-horn Sumach. E. North America.

Height 16 feet. A staminate tree, planted in the Arboretum 1902.

R. vernicifera. Lacquer Tree. Central and W. China and perhaps Japan.

This tree is used extensively by the Japanese. We have found it quite hardy, and a rapid grower, often making a growth of 3 feet in a season. The tree is now 20 feet high, and has been in the open seven years. (1916.)

RIBES. Currants and Gooseberries. **Saxifragaceæ.**

R. alpinum. Alpine Currant. N. Hemisphere (Old World), Britain.

R. americanum. American Currant. E. North America. Syn. **R. floridum.**

R. aureum. Buffalo Currant. Central United States.

R. gordonianum (sanguineum × aureum). Garden origin.

R. lacustre. N. America.

****R. laurifolium.** N.W. China.

R. Lobbii. N. California and S. British Columbia.

A slow growing little shrub, with an attractive flower, the petals pink and the calyx red.

R. prostratum. N. America.

R. sanguineum. Flowering Currant. W. North America.

„ var. **atrorubens.**

„ var. **atrosanguineum.**

„ var. **carneum.**

R. speciosum. California.

Syn. **R. fuchsoides.**

With flowers like a fuchsia, and coming into leaf before most other plants in the garden.

****R. viburnifolium.** Lower California and Santa Catalina Island.

RICHARDIA. Araceæ.

†**R. africana.** Arum Lily. S. Africa.

Syn. **R. æthiopica.**

†**R. africana**, var. **Childsii.**

†**R. maculata**, var. **Mrs. Roosevelt.**

ROBINIA. Leguminosæ.

R. hispida. Rose Acacia. S.E. United States.

R. Kelseyi. Alleghany Mountains, probably.

A beautiful, but very brittle, small tree, quickly broken by strong wind or snow, and needing very careful staking.

R. Pseudacacia. Locust Tree, Acacia. E. United States.

Height 39 feet. A well-grown tree, planted in the Arboretum 1902.

R. Pseudacacia, var. **decaisneana.**

Two trees, planted in the Arboretum 1902, now measure respectively 42 feet and 26 feet in height. (1916.)

R. Pseudacacia, var. **decaisneana flore rubro.**

„ var. **monophylla.**

„ var. **rosynskiana.**

Height 15 feet. A white-flowered variety, in the Arboretum.

R. Pseudacacia, var. **semperflorens.**

Height 34 feet. Planted in the Arboretum 1902.

R. viscosa. Clammy Locust. Mountains of Carolina.

Height 23 feet. Planted in the Arboretum 1901.

ROCHEA. Crassulaceæ.

†**R. coccinea.** S. Africa.

Syn. **Crassula coccinea.**

†**R. coccinea**, var. **dwarf.**

See also **CRASSULA.**

RODGERSIA. Saxifragaceæ.

R. podophylla. Rodger's Bronze-leaf. Japan.

ROMNEYA. Papaveraceæ.

**R. Coulteri.* California.

RONDELETIA. Rubiaceæ.

†*R. cordata.* Guatemala.

ROSA. Rosaceæ.

R. acicularis. Finland, Siberia, Japan and N. Alaska.

R. alba. Europe.

R. alpina. Mountains of Central and S. Europe.

R. Banksiæ. Banksian Rose. China.

„ var. *flore albo pleno.*

„ var. *lutea.*

R. blanda. Smooth or Meadow Rose. N. America.

R. bracteata. Macartney Rose. China.

R. Ecæ. Afghanistan.

Syn. *R. xanthina.*

R. gallica, var. *pumila.*

R. humilis. Pasture Rose. E. North America.

R. humilis × *rugosa.* Garden origin.

R. involucrata. India.

Syn. *R. Lyellii.*

R. lævigata. Cherokee Rose. China.

Syn. *R. sinica.*

**R. lævigata*, var. *Anemone.*

R. lutea. Austrian Briar. Orient.

R. macrantha (*gallica* × *macrantha*). Europe.

R. macrophylla. Himalaya and W. China.

R. microphylla. Burr Rose. China.

R. moschata. Musk Rose. S.E. Europe to N. India and China.

Syn. *R. Brunoni.*

R. moschata, var. *fl. pl.*

R. Moyesii. W. China.

No rose has more attractive fruit than *R. Moyesii*, and the flowers also are very beautiful. It grows into a tall bush in an open border, and is quite hardy.

R. nitida. E. North America.

R. Omissa.

R. rubrifolia. Mountains of Central Europe.

R. rugosa. Ramanas Rose. China, Japan and Corea.

„ var. **alba.**

R. spinosissima. Scotch or Burnet Rose. Europe, Britain, etc.

R. spinosissima, var. **altaica.**

„ var. **Harissoni.** (Perhaps a hybrid with *lutea*.)

R. spinosissima, var. **lutea,** fl. pl.

„ Other varieties.

R. virginiana. E. North America.

Syn. **R. lucida.**

R. wichuraiana. Japan.

„ var. **rubra.**

R. sp. F. 291a.

R. sp. F. 291b.

****R. sp.**

Other varieties.

Named rose varieties.

Alberic Barbier	Kaiserin Augusta Victoria
American Pillar	Killarney
Antoine Rivoire	Lady Ashtown
Austrian Briar, Copper	Lady Hillingdon
„ „ Yellow	La France
Blanche double de Coubert	Léonie Lamesch
Blush China	Leuchstern
Blush Rambler	Liberty
Camoëns	Longworth Rambler
Captain Hayward	Lyon Rose
Carminé Pillar	Madame Abel Chatenay

Caroline Testout	Madame Alf. Carrière
Catherine Mermet	Madame Hoste
Conrad F. Meyer	Madame Jules Grolez
Dawson Rose	Madame Lambard
Debutante	Madame Ravary
Diabolo	Maiden's Blush
Dorothy Perkins	Maman Cochet
Dundee Rambler	Marquise Litta
Enchantress	Marquis of Salisbury
Euphrosyne	Mrs. W. W. Cutbush
Excelsa	Niphetos
Fellenberg	Pharisaër
Francesca Kruger	Pink Roamer
Frau Karl Druschki	Princesse de Sagan
Gardenia	Psyche
Gloire de Dijon	Reine Marie Henriette
G. Nabonnand	Réné André
Goldfinch	Rêve d'Or
Grand Duc de Luxembourg	Ruby Queen
Grüss an Teplitz	South Orange Perfection
Gustave Régis	Souvenir du Président Carnot
Hermosa	Souvenir de Thérèse Levet
Hiawatha	Stanwell Perpetual
Homère	Thalia
Hon. Edith Gifford	Una
Irish Elegance	Universal Favourite
Janet's Pride	Viscountess Folkestone
Juliet	W. A. Richardson

ROSCOEIA. Zingiberaceæ.

R. purpurea. India.

Hardy, with handsome, purple flowers ; dies down to the level of the ground each year.

ROSMARINUS. Labiatae.

R. officinalis. Rosemary. Europe and Asia Minor.

RUBUS. Raspberries and Brambles. **Rosaceæ.**

R. arcticus, var. **secunda**. Rock garden.

R. deliciosus. Rocky Mountains.

R. laciniatus. Cut-leaved Bramble. Origin doubtful.

R. lasiostylus. Central China.

R. nutkanus. Salmon Berry. W. North America.

R. phœnicolasius. Wineberry. China (province of Kansu) and Japan.

R. roseæfolius. Tropical Asia.

R. ulmifolius, var. **bellidiflorus**. Garden origin.

Syn. var. fl. pl.

R. sp. F. 281.

RUDBECKIA. Cone-flower. **Compositæ.**

R. speciosa. N. America.

Syn. **R. Newmanni**.

RUELLIA. **Acanthaceæ.**

†**R. amœna**. S. America.

RULINGIA. **Sterculiaceæ.**

†**R. grandiflora**.

RUSCUS. **Liliaceæ.**

R. aculeatus. Butcher's Broom. S. Europe, England.

See also **DANAË** and **SEMELE**.

RUSSELIA. **Scrophulariaceæ.**

†**R. juncea**. Mexico.

S**SAGINA.** **Caryophyllaceæ.**

S. glabra, var. **pilifera**. Europe.

SAGITTARIA. **Alismaceæ.**

S. sagittifolia. Common Arrow-head. Europe, Britain.

SALIX. Willow. **Salicaceæ.**

S. acutifolia. Russia and Turkestan.

Syn. **S. pruinosa.**

S. alba. White Willow. Europe, Britain and N. Asia.

S. babylonica. Weeping Willow. China.

„ var. **annularis.**

„ var. **coccinea.**

„ var. **ramulis aureis.**

A fast-growing willow, with drooping branches and foliage of soft green, planted 1908 and measuring 21 feet high in 1916. It is growing in a dry and sunny field.

S. daphnoides. Violet Willow. E. Europe, Siberia and Himalaya.

S. moschata (*Caprea* × *cinerea*).

S. reticulata. Mountains of Europe, Scotland and Labrador.

S. vitellina. Golden Willow. Origin doubtful.

„ var. **britzensis.**

Height 43 feet. A handsome, pyramidal tree, planted in a wet position on the east slope of the Arboretum 1905. It has a particularly bright red bark.

SALVIA. Labiateæ.

S. argentea. Mediterranean region.

†**S. discolor.** Peru.

***S. Grahmi.** Mexico.

S. Horminum. Horminum Clary. Mediterranean region.

S. officinalis. Common Sage. S. Europe.

„ var. **alba.**

***S. patens.** Mexico.

†**S. splendens.** Brazil.

† „ var. **compacta.**

SAMBUCUS. Elder. **Caprifoliaceæ.**

S. canadensis. American Elder. E. North America.

S. nigra. Common Elder. Europe, Britain.

„ var. **foliis aureis.** Golden Elder.

„ var. **variegata.**

S. racemosa, var. *serratifolia aurea*.

S. sp. F. 287.

SANTOLINA. Compositæ.

S. Chamæcyparissus. Lavender Cotton. Mediterranean region.

SAPINDUS. Sapindaceæ.

S. marginatus. Soap Berry, Wild China Tree. S. United States.

SAPONARIA. Soapwort. Caryophyllaceæ.

S. ocymoides. Rock Soapwort. Europe.

S. officinalis. Common Soapwort. Europe, Britain, Temperate Asia.

SARCOCOCCA. Euphorbiaceæ.

S. pruniformis. India.

S. ruscifolia. Central China.

SASSAFRAS. Lauraceæ.

S. officinale. Sassafras. E. United States.

Height 16 feet. A vigorous seedling, ten years old. (1916.)

SAXEGOTHÆA. Taxaceæ.

S. conspicua. Prince Albert's Yew. Chile.

SAXIFRAGA. Saxifragaceæ.

S. aizoon. Northern and Arctic regions.

S. Andrewsii. Garden origin.

Syn. *S. guthrieana*.

S. apiculata. Garden origin.

S. burseriana. E. Europe, etc.

S. cæspitosa. Northern and Arctic regions.

S. Cotyledon, var. *pyramidalis*. Europe.

S. cuneata. Spain.

S. decipiens. Europe.

„ var. *Bakeri*.

„ var. *Clibrani*.

„ var. *grandiflora*.

Syn. var. *bathoniensis*.

- S. decipiens**, var. **R. W. Hosier**.
 „ var. **superba atrosanguinea**.
 „ var. **seedling No. 1**.
 „ var. **seedling No. 2**.
S. Elizabethæ.
S. Geum. W. Europe, Ireland.
S. granulata, var. **fl. pl.** Meadow Saxifrage. Britain, etc.
S. Grisebachii. W. Europe.
S. hypnoides. Dovedale Moss. Europe, Britain.
S. juniperifolia. Caucasus.
S. lingulata, var. **lantoscana**. S. Europe.
S. longifolia. Pyrenees.
S. macnabiana. Garden origin.
S. muscoides. Europe.
 „ var. **atropurpurea**.
 „ var. **Rhei**. Transylvania.
S. peltata. Umbrella Plant. California.
S. sancta. Macedonia.
S. tenella. Tyrol.
S. trifurcata, var. **ceratophylla**. N. Spain.
 Syn. **S. ceratophylla**.
S. umbrosa. London Pride. W. Europe.
 Other species unnamed.

SCABIOSA. Scabious. **Dipsacææ.**

***S. cretica**.

SCHINUS. Anacardiaceæ.

S. dependens. Chile.

†**S. Molle**. Pepper Tree. S. America.

SCHIZANDRA. Magnoliaceæ.

S. chinensis. China and Japan.

Syn. **Maximowiczia chinensis**.

SCHIZOCODON. Diapensiaceæ.

S. soldanelloides. Japan.

SCHIZOPHRAGMA. Saxifragaceæ.

S. hydrangeoides. Climbing Hydrangea. Japan.

SCHIZOSTYLIS. Iridaceæ.

S. coccinea. Crimson Flag, Kaffir Lily. S. Africa.

SCIADOPITYS. Coniferæ.

S. verticillata. Umbrella Pine. Japan.

SCILLA. Squill. Liliaceæ.

S. hispanica. Spanish Bluebell or Squill. Spain and Portugal.

S. sibirica. Asia Minor, etc.

SCIRPUS. Club Rush. Cyperaceæ.

**S. cernuus.* Cosmopolitan.

Syn. *S. riparius.*

SCOLOPENDRIUM. Filices.

S. vulgare. Hart's Tongue. N. Temperate Zone.

„ var. *crispum.*

„ var. *cristatum.*

SEDUM. Crassulaceæ.

S. acre. Biting Stonecrop, Wall Pepper. Europe, etc.

S. album. Worm Grass. Europe, etc.

S. Anacampseros. Evergreen Orpine. Central Europe.

S. anglicum. Europe.

S. bridgeanum.

S. dasyphyllum. Europe.

S. hispanicum. S. Europe, etc.

Syn. *S. glaucum.*

S. kamtschaticum. Orange Stonecrop. Kamtschatka.

S. lydium. Asia Minor.

S. obtusatum. California.

S. populifolium. Siberia.

S. pruinaum. W. Mediterranean region.

S. pulchellum. N. America.

- S. Sieboldii.** Japan.
S. spathulifolium. W. North America.
S. spectabile. Japan.
S. spurium. Caucasus.
 „ var. **album.**
S. Telephium. Orpine. Europe, Britain.

SELAGINELLA. Lycopodiaceæ.

- S. kraussiana.** S. Africa, W. Tropical Africa, Azores.
 Syn. **denticulata.**

SEMELE. Liliaceæ.

- †**S. androgyna.** Canary Islands.
 Syn. **Ruscus androgynus.**

SEMPERVIVUM. Crassulaceæ.

- S. arachnoideum.** Cobweb Houseleek. Europe.
S. arenarium. Tyrol.
S. Laggeri. Switzerland.
S. obscurum. Origin uncertain.
S. Pittoni. Styrian Alps.
S. Reginæ-Amaliæ.
S. tabuliforme. Madeira.
S. Tectorum. Common Houseleek. Europe, etc.
S. Verloti. Dauphiny.

SENECIO. Compositæ.

- S. adonidifolius.** Europe.
 Syn. **S. artemisiæfolius.**
 †**S. auriculatissimus.** British Central Africa.
 ***S. Cineraria.** Dusty Miller. Mediterranean region.
 Syn. **Cineraria maritima.**
S. Clivorum. China.
 ***S. compactus.** New Zealand.
 ***S. elæagnifolius.** New Zealand.
 †**S. Hectori.** New Zealand.
 †**S. Kirkii.** New Zealand.

- **S. laxifolius*. New Zealand.
- †*S. macroglossus*. S. Africa.
- **S. Monroi*. New Zealand.
- †*S. rotundifolius*. New Zealand.
- S. Veitchii*. China.
- S. sp.*

SEQUOIA. Coniferæ.

- S. gigantea*. Big Tree, Wellingtonia. W. Slopes of Sierra Nevada, California.
Syn. Wellingtonia gigantea.
Height 60 feet. A tree planted on the Lawn, about seventy years old.
- S. gigantea*, var. *aurea*.
„ var. *pendula*.
Height 20 feet. A tree of unique appearance, the boughs hanging almost vertically from the main stem. Planted in the Pinetum 1901.
- S. sempervirens*. Redwood. California and S. Oregon.
Height 42 feet. Planted in the Pinetum 1898.
- S. sempervirens*, var. *gracilis*.
„ var. *pendula*.

SERISSA. Rubiaceæ.

- †*S. foetida*. China and Japan.

SHEPHERDIA. Elæagnaceæ.

- S. argentea*. Buffalo Berry. Central United States and Manitoba.

SHORTIA. Diapensiaceæ.

- S. galacifolia*. N. Carolina.
- S. uniflora*. Japan.
- „ var. *grandiflora*.

SILENE. Catchfly. Caryophyllaceæ.

- S. acaulis*. Moss Champion, Cushion Pink. Northern and Arctic regions.
- S. Hookeri*. California.
- S. Schafta*. Caucasus.

SILPHIUM. Rosin Weed. **Compositæ.**

S. terebinthinaceum. Prairie Burdock. N. America.

SKIMMIA. Rutaceæ.

S. Fortunei. China.

S. japonica. Japan.

„ var. **Veitchii.**

The vivid red berries remain upon the bush throughout the year. The shrub is 4 feet high and 6 feet through, and flowers in May.

SMILAX. Liliaceæ.

***S. aspera.** Rough Bindweed, Prickly Ivy. S. Europe, N. Africa and Canaries.

SMODINGIUM. Anacardiaceæ.

S. argutum. S. Africa.

SOLANUM. Solanaceæ.

†**S. aviculare.** Bird Solanum, Kangaroo Apple. Australia, New Zealand, Tasmania and Norfolk Island.

†**S. Capsicastrum.** Brazil.

S. crispum. Chile.

Height 9½ feet in an open border. We have found it quite hardy, and few flowering shrubs could be more beautiful.

***S. jasminoides.** Brazil.

SOLDANELLA. Primulaceæ.

S. alpina. Blue Moonwort. Alps.

S. austriaca.

S. montana. E. Europe.

SOLLYA. Pittosporaceæ.

***S. heterophylla.** Australia.

†**S. parviflora.** Australia.

Syn. **S. Drummondii.**

A charming climber for the Cool House, with turquoise flowers. Easily raised from seed.

SOPHORA. Leguminosæ.*S. flavescens.* Siberia.*S. japonica.* China.„ *var. pendula.*

A slow growing but graceful tree, which was planted on the Lawn some twenty years ago, and is now 10 feet high, the drooping branches having a spread of 6 feet.

S. japonica, var. violacea. China.**S. tetraptera.* New Zealand and Chile.* „ *var. grandiflora.*Syn. *Edwardsia grandiflora.*

At last this seems thoroughly established upon a south wall. For some years it remained a mass of tangled branches which bore no flowers, but now it has grown quite 6 feet above the wall, and flowers freely in April and May.

S. tetraptera, var. microphylla.S. viciifolia.* China.**SPARAXIS.** See **DIERAMA.****SPARMANNIA.** Tiliaceæ.†*S. africana.* African Hemp. S. Africa.**SPARTIUM.** Leguminosæ.*S. junceum.* Spanish Broom. S. Europe.**SPHÆRALCEA.** Malvaceæ.**S. munroana.* N. America.**SPIRÆA.** Rosaceæ.*S. Aitchisoni.* Afghanistan, Kashmir, etc.*S. arguta.* Garden origin.*S. Aruncus.* Goat's Beard. N. Temperate regions.*S. assurgens.* China.*S. astilboides.* Japan.*S. bullata.* Japan.Syn. *S. crispifolia.**S. canescens.* Himalaya.

- S. cantoniensis.** China and Japan.
Syn. **S. reevesiana.**
- S. chinensis.** N. China.
Syn. **S. pubescens.**
- S. decumbens.** Tyrol.
- S. discolor.** W. North America.
Syn. **S. ariæfolia.**
- S. Douglasii.** W. North America.
- S. Filipendula, fl. pl.** Dropwort. Europe, Britain.
- S. Henryi.** W. China.
- S. japonica.** China and Japan.
„ var. **Bumalda.**
„ var. **Bumalda Anthony Waterer.**
„ var. **coccinea.**
„ var. **ruberrima.**
„ Other varieties.
- S. lindleyana.** Himalaya.
- S. lobata.** Queen of the Prairie. N. America.
Syn. **S. venusta.**
- S. media.** E. Europe to Japan and Saghalien.
Syn. **S. confusa.**
- S. Menziesii, var. macrothyrsa.**
Syn. **S. californica.**
- S. Millefolium.** W. North America.
- S. mollifolia.** W. Szechuen.
- S. nudiflora.**
- S. palmata.** Japan.
- S. prunifolia, fl. pl.** China.
- S. revirescens (expansa × japonica).**
„ var. **parviflora.**
- S. salicifolia.** Bridewort. E. Europe to Japan.
„ var. **flore albo.**
- S. sanssouciana (japonica × Douglasii).** Garden origin.
Syn. **S. nobleana.**
- S. sorbifolia.** Ural Mountains to Japan.
- S. Thunbergii.** China.
- S. Ulmaria.** Meadowsweet. Europe, Britain, etc.

S. Van Houttei. Garden origin.

6 feet high by 10 feet through. One of the most beautiful of *Spiræas*, which flowers in May and forms a thick bush. Here, at an altitude of 450 feet, it is spared to a great extent its worst enemy, the spring frost.

S. sp. 5305. China.

S. sp.

S. sp.

SPREKELIA. *Amaryllidaceæ*.

†**S. formosissima.** Jacobea Lily. Mexico, Guatemala.

STACHYS. *Labiataë*.

S. lanata. Caucasus, etc.

STACHYURUS. *Ternstroemiaceæ*.

S. præcox. Japan.

Of which several plants are growing in the Wall Garden, measures 5 feet high and 11 feet through, and flowers in February, the yellow flowers hanging from the leafless branches. The fruit formed for the first time in 1916.

S. chinensis. China.

STAPELIA. *Asclepiadaceæ*.

†**S. sp.**

STAPHYLEA. Bladder Nut. *Sapindaceæ*.

S. colchica. S. Caucasus.

Flowers well in the open: one bush measures 14 feet high by 13 feet through.

S. Coulombieri (*pinnata*, probably $\times$ *colchica*).

„ var. *grandiflora*.

„ var. *Hessei*.

The pink, striped flowers are larger than the flowers of *S. colchica*.

STATICE. *Plumbaginaceæ*.

S. latifolia. Bulgaria, etc.

†**S. profusa.** Garden origin.

***S. rosea.** S. Africa.

STAUNTONIA. Berberidaceæ.

S. hexaphylla. Corea and Japan.

See also **HOLBOELLIA.**

STENANTHIUM. Liliaceæ.

S. robustum. N. America.

STEPHANANDRA. Rosaceæ.

S. flexuosa. Corea and Japan.

S. Tanakae. Japan.

S. sp. F. 54.

STEPHANOTIS. Asclepiadaceæ.

††*S. floribunda.* Clustered Wax Flower. Madagascar
Jasmine. Madagascar.

STERCULIA. Sterculiaceæ.

†*S. acerifolia.* Australia.

†*S. diversifolia.* Bottle Tree of Victoria. Australia.
Syn. *Brachychiton populneum.*

STERNBERGIA. Amaryllidaceæ.

S. lutea. Winter Daffodil. Mediterranean region.

STRANVÆSIA. Rosaceæ.

S. glaucescens. Himalaya.

Height 15 feet, diameter 13 feet. This tree has succeeded admirably and has encroached so much on the neighbouring shrubs that many of its branches have had to be cut back. It flowers freely, but, in its semi-shaded position, has never borne berries.

S. undulata. China.

A perfectly hardy shrub, which flowers well in the Top Garden, and bears brilliantly coloured berries in autumn. The leaves often turn bright red at the same time.

STRELITZIA. Scitamineæ.

†*S. augusta.* S. Africa.

†*S. Reginae.* S. Africa.

STREPTOSOLEN. Solanaceæ.

†*S. Jamesoni*. Colombia.

STUARTIA. Ternstroemiaceæ.

S. Malachodendron. S.E. United States.

Syn. *S. virginica*.

S. pentagyna. S. United States.

S. Pseudo-camellia. Japan.

Syn. *S. grandiflora*.

S. serrata.

STYRAX. Styraceæ.

S. hemsleyanum. Central and W. China.

Height 11 feet. This beautiful little tree was transplanted into the Wall Garden in 1913. It is now at least nine years old. It has proved quite hardy, protected as it is by surrounding trees. It flowers each June.

S. japonicum. Corea and Japan.

S. Obassia. Japan.

Height 11 feet, diameter 6 feet. *S. Obassia* is a singularly beautiful tree when grown in a sheltered position. It both flowers and fruits here. The whole genus *Styrax* seems to thrive in our light soil.

S. officinale. *Storax*. Greece and Asia Minor.

SUTHERLANDIA. Leguminosæ.

†*S. frutescens*. Bladder Senna of the Cape. S. Africa.

SWAINSONIA. Leguminosæ.

†*S. coronillæfolia*. Australia.

Syn. *S. galegifolia*.

†*S. coronillæfolia*, var. *alba*.

SYCOPSIS. Hamamelidaceæ.

S. sinensis. Central China.

SYMPHORICARPUS. Caprifoliaceæ.

S. orbiculatus. Coral Berry. E. United States.

Syn. *S. vulgaris*.

S. racemosus. Snowberry. N. America.

SYMPLOCOS. *Styracææ*.

S. cratægoides. China, Himalaya and Japan.

SYRINGA. Lilac. *Oleaceæ*.

S. Emodi. Himalaya.

„ var. *variegata*.

S. japonica. Japan.

14 feet high by 14 feet through. Flowering in the Wall Garden in June.

S. Josikæa. Josika Lilac. Transylvania.

A bush, 8 feet high by 11 feet through, growing in the Wall Garden.

S. persica. Persian Lilac. Afghanistan.

S. pinnatifolia. W. China.

S. villosa. N. China.

Syn. *S. Bretschneideri*.

Height 7 feet. A most robust shrub, with stiff, upright branches, growing in an exposed position and flowering in June. The flowers are pale mauve and smell like privet.

S. vulgaris. Common Lilac. E. Europe.

S. Wilsonii. N.W. China.

S. garden varieties.

T**TACSONIA.** *Passifloreæ*.

†*T. mixta*. Tropical America.

† „ var. *quitensis*. N. Quito.

†*T. tripartita*. Colombia.

Syn. *T. mollissima* and *T. smythiana*.

†*T. sp.*

TAMARIX. Tamarisk. *Tamaricææ*.

T. pentandra. S.E. Europe and Asia Minor.

Syn. *T. Pallasii* and *T. hispida æstivalis*.

T. tetrandra. E. Mediterranean region, Crimea, Caucasus, etc.

TANACETUM. Compositæ.

T. vulgare. Common Tansy. Europe, Britain, etc.

TAXODIUM. Coniferæ.

T. distichum. Deciduous Cypress. S. United States.

„ var. **pendulum.**

Syn. **Glyptostrobus pendulus.**

TAXUS. Yew. Taxaceæ.

T. baccata. Common Yew. Europe, Britain, N. Africa and W. Asia.

T. baccata, var. **adpressa.**

„ var. **adpressa stricta.**

„ var. **albo-variegata.**

„ var. **argentea.**

„ var. **aurea.**

„ var. **buxtonensis.**

„ var. **Dovastonii.**

„ var. **elegantissima.**

„ var. **epacridioides.**

„ var. **erecta.**

„ var. **fastigiata.** Irish Yew.

„ var. **fastigiata aurea.**

„ var. **fructu-luteo.**

„ var. **glauca.** Blue John.

„ var. **pyramidalis.**

„ var. **semperaurea.**

T. canadensis. Canadian Yew. E. North America.

T. cuspidata. Japanese Yew. Japan.

TEGOMA. Bignoniaceæ.

†**T. capensis.** S. Africa.

***T. grandiflora.** China and Japan.

Syn. **Bignonia grandiflora.**

***T. grandiflora,** var. **Madame Galen.**

* „ var. **sanguinea.**

†**T. jasminoides.** Australia.

T. radicans. Trumpet Flower. S.E. United States.

Syn. **Bignonia radicans.**

†**T. Smithii.** Garden origin.

TEMPLETONIA. Leguminosæ.

†*T. retusa*. Coral Bush. Australia.

TETRACENTRON. Trochodendraceæ.

T. sinense. Hupeh, China.

Height 9 feet. So far a hardy tree ; planted in the Arboretum 1914.

TETRACLINIS. Coniferæ.

†*T. articulata*. Algeria, Morocco.

Syn. *Callitris quadrivalvis*.

TEUCRIUM. Labiatae.

T. argenteum.

T. Chamædrys. Germander. Europe, etc.

**T. fruticans*. Shrubby Germander. S. Europe.

Syn. *T. latifolium*.

THALICTRUM. Meadow Rue. Ranunculaceæ.

T. anemonoides. Rue Anemone. N. America.

T. dipterocarpum.

T. minus, var. *adiantifolium*. Europe.

THLADIANTHUS. Cucurbitaceæ.

†*T. dubia*. China.

THUJOPSIS. See **CUPRESSUS** and **THUYA**.**THUNBERGIA.** Acanthaceæ.

†*T. coccinea*. India.

†*T. laurifolia*. Malaya.

**T. natalensis*. S. Africa.

Flowers and fruits well in the Shrub House.

THUYA. Coniferæ.

T. dolobrata. Japan.

Height 16 feet. Planted in the Pinetum 1898.

T. dolobrata, var. *nana*.

Syn. *Thujopsis lætevirens*.

T. dolobrata, var. **variegata**.

T. japonica. Japanese Arbor-vitæ. Japan.

Syn. **T. Standishii**.

Height 16 feet. Planted in the Pinetum 1898.

T. occidentalis. American Arbor-vitæ. E. North America.

T. occidentalis, var. **aurea**.

„ var. **Bodmeri**.

„ var. **cristata**.

„ var. **ellwangeriana**.

„ var. **globosa**.

„ var. **globosa compacta**.

„ var. **Little Gem**.

„ var. **lutea**.

„ var. **plicata**.

„ var. **vervæneana**.

„ var. **wareana**.

„ var. **wareana aurea**.

Syn. var. **plicata aurea**.

T. orientalis. Chinese Arbor-vitæ. N. and W. China.

Syn. **Biota orientalis**.

T. orientalis, var. **aurea**.

T. plicata. Giant Thuya. N.W. America.

Syn. **T. gigantea**.

Height 31 feet. Planted 1898.

T. plicata, var. **aurea**.

„ var. **gracilis**.

Height 12 feet. Planted 1900.

THYMUS. Labiatae.

T. Serpyllum. Wild Thyme. Britain, etc.

„ var. **albus**.

„ var. **citriodorus**. Lemon Thyme.

„ var. **coccineus**.

„ var. **lanuginosus**.

T. vulgaris. Garden Thyme. S. Europe.

TIARELLA. Saxifragaceae.

T. cordifolia. Foam Flower. N. America.

TIBOUCHINA. Melastomaceæ.

†*T. semidecandra.* Brazil.

TIGRIDIA. Iridaceæ.

**T. Pavonia.* Peacock Tiger Lily. Mexico.

TILIA. Lime, Linden. Tiliaceæ.

T. americana. American Lime, Basswood. E. and Central North America.

Height 29 feet. Planted in the Arboretum 1902.

T. Michauxii. E. North America.

Height 28 feet. Planted in the Arboretum 1902.

T. Moltkei. Moltke's Lime. Garden origin.

Height 27 feet. Planted in the Arboretum 1902.

T. petiolaris. Pendent Silver Lime. E. Europe.

Height 10 feet. Planted in the Arboretum 1912.

T. platyphyllos. Europe.

„ var. *ficifolia nova.*

T. spectabilis (*Michauxii* × *tomentosa*). Garden origin.

T. tomentosa. White Lime. S.E. Europe.

Syn. *T. argentea.*

Height 26 feet. Planted in the Arboretum 1902.

T. vulgaris. Common Lime.

Syn. *T. europæa.*

TORREYA. Taxaceæ.

T. californica. Californian Nutmeg. California.

Syn. *T. Myristica* (*Bot. Mag.*, 4780).

T. grandis. China.

Height 3½ feet. A poor specimen, with little vitality.

TRACHELOSPERMUM. Apocynaceæ.

**T. crocosotomum.* China, probably.

All three *Trachelospermums* grow well upon a west wall, where they have been planted some six years. (1916.) *T. crocosotomum* is protected slightly in severe weather and flowers well in August.

***T. jasminoides.** China.

Syn. *Rhyncospermum jasminoides*.

Has the largest flowers and the sweetest scent. It does better in the open than in the Conservatory, where it is so often grown.

***T. jasminoides, var. variegatum.**

The leaves tinted with red.

TRACHYCARPUS. Palmæ.***T. Fortunei.** China.

Syn. *T. excelsa* and *Chamærops excelsa*.

Height 9 feet. A group, planted under some trees in a sheltered position, has never been damaged by frost. The plants flower and produce seed.

T. martiana.** Himalaya.**TRICUSPIDARIA.** Tiliaceæ.T. dependens.** Chile.

We have found *T. dependens* a more tender plant than *T. lanceolata*. It is protected by a wall, though not actually growing on it. A plant flowered freely for two years, till a severe frost cut it to within three feet of the ground: it recovered a little, but has never done so well since.

***T. lanceolata.** Chile.

Syn. *T. hexapetala* and *Crinodendron hookerianum*.

14 feet high by 12 feet through. Growing against a west wall, with sheltering trees around it, and flowering well in June. Plants in a more open position have been killed by frost, but this one has so far only been cut back slightly on occasions.

TRILLIUM. Liliaceæ.

T. erectum. Birth-root. N. America.

T. grandiflorum. Wake Robin. N. America.

TRIOSTEUM. Caprifoliaceæ.

T. perfoliatum. Horse Gentian. N. America.

TRITELEIA. See **BRODIAEA.**

TRICUSPIDARIA LANCEOLATA

TROCHODENDRON. Trochodendraceæ.

T. aralioides. Japan.

TROLLIUS. Globe Flower. Ranunculaceæ.

T. europæus. Mountain Globe Flower. Europe, etc.

TROPÆOLUM. Nasturtium. Geraniaceæ.

†*T. lobbianum*, var. *Darmstadt.*

T. polyphyllum. Yellow Rock Indian Cress. Chile.

T. speciosum. Flame-flowered Nasturtium. Chile.

Growing on the north side of a wall, and covering the south side with long sprays of flowers and fruit.

†*T. tricolorum.* Chile.

TSUGA. Hemlock Firs. Coniferæ.

T. albertiana. Western Hemlock. W. North America.

Height 38 feet. A well-grown tree, planted in the Pinetum 1896.

**T. brunoniana.* Himalayan Hemlock. Himalaya.

T. canadensis. Canadian Hemlock. E. North America.

„ var. *argentea.*

„ var. *parvifolia.*

T. caroliniana. Carolina Hemlock. S.E. United States.

T. pattoniana. Patton's Hemlock. W. North America.

Syn. *T. hookeriana* and *T. mertensiana.*

T. Sieboldii. Siebold's Hemlock. Japan.

TULBAGHIA. Liliaceæ.

†*T. violacea.* S. Africa.

TULIPA. Liliaceæ.

T. clusiana. Lady Tulip. Mediterranean region.

T. gesneriana. Levant.

T. sp. (white). Tochi Valley, N.W.P. India.

Other varieties.

TUNICA. Caryophyllaceæ.

T. Saxifraga. Europe, etc.

„ var. *fl. pl.*

U

ULEX. Leguminosæ.

U. europæus. Furze, Gorse. W. and Central Europe, Britain.

U. nanus. Dwarf Gorse. W. Europe.

ULMUS. Elm. **Urticaceæ.**

U. alata. Wahoo, Winged Elm. E. United States.

U. americana. American or White Elm. E. and Central North America.

Height 34 feet. Planted in the Arboretum 1902.

U. campestris. English Elm. S. England.

„ var. **Louis van Houtte.**

„ var. **variegata.**

U. montana. Wych Elm, Scotch Elm. N. Europe, Britain, etc.

U. montana, var. **horizontalis.**

„ var. **marginata.**

„ var. **pendula.**

U. nitens, var. **suberosa.** Central Europe.

Height 19 feet. Planted in the Arboretum 1902.

U. serotina. S.E. United States.

Height 7 feet. Planted in the Arboretum 1912.

UMBELLULARIA. Lauraceæ.

***U. californica.** Californian Laurel. California and Oregon.

Syn. **Oreodaphne californica.**

Height 24 feet. A tree growing near the south wall. It flowers every year and occasionally fruits. The leaf when rubbed has a pungent smell: it contains cyanic acid, and when crushed in water forms prussic acid.

UNGNADIA. Sapindaceæ.

†**U. speciosa.** Spanish Buckeye. Mexico, Texas.

V

VACCINIUM. *Vacciniaceæ.*

- V. arboreum.** Farkleberry. S. and E. United States.
V. hirsutum. Hairy Huckleberry. Mountains of N. Carolina and southwards.
V. Myrtillus. Whortleberry, Bilberry. Britain, N. and Central Europe.
V. ovatum. W. North America.
V. pennsylvanicum. Low Blueberry. E. North America.
V. stamineum. Deerberry. E. North America.
V. uliginosum. Bog Bilberry. N. Hemisphere, N. Britain.
V. Vitis-idæa. Cowberry. Britain, Europe, N. Asia and N.E. America.

See also **OXYCOCCUS.**

VALLOTA. *Amaryllidaceæ.*

- †**V. purpurea.** Scarborough Lily. S. Africa.

VERBASCUM. *Mullein. Scrophulariaceæ.*

- V. olympicum.** Bithynia.
V. phlomoides. Woolly Mullein. Europe, etc.

VERBENA. *Verbenaceæ.*

- †Garden varieties.

VERBENA, Lemon-scented. See **LIPPIA.****VERONICA.** *Scrophulariaceæ.*

- ***V. Andersoni**, var. **variegata.** Garden origin.
 ***V. angustifolia.** New Zealand.
V. buxifolia. New Zealand.
 ***V. chathamica.** New Zealand.
V. cupressoides. New Zealand.
V. guthrieana. Garden origin.
V. Hectori. Hector's Speedwell. New Zealand, S. Island.

- **V. hulkeana*. New Zealand, S. Island.
- V. pectinata*. Greece.
- V. pinguifolia*. New Zealand, S. Island.
- V. propinqua*. New Zealand.
- Syn. *V. cupressoides*, var. *salicornioides*.
- V. repens*. Corsica.
- **V. salicifolia*. New Zealand.
- V. saxatilis*. Rock Speedwell. Europe.
- V. siberica alba*. N. America.
- **V. speciosa*. New Zealand, N. Island.
- * ,, var. *Autumn Glory*.
- * ,, var. *Gauntletti*.
- * ,, var. *La Séduisante*.
- * ,, var. *Redruth*.
- * ,, var. *Veitchii*.
- **V. subalpina*. New Zealand.
- V. Teucrium*, var. *dubium*. Europe.
- Syn. *V. prostrata* and *V. rupestris*.
- V. Traversii*. Travers's Speedwell. New Zealand.

VIBURNUM. Caprifoliaceæ.

- V. Carlesii*. Corea.
- V. Davidii*. W. China.
- V. fragrans*. China.
- V. Henryi*. Central China.
- V. Lantana*. Wayfaring Tree. Europe, Britain, etc.
- V. macrocephalum*, var. *sterile*. China.

The Chinese Guelder Rose is well worthy of a place of honour near a south wall. It needs some slight protection, as the flowers, which form in the autumn, are sometimes damaged by frost ; but the plant itself seems perfectly hardy.

- V. nudum*. E. United States.
- V. Opulus*, var. *sterile*. Guelder Rose, Snowball Tree.
- ,, var. *nanum*.
- V. rhytidophyllum*. Central and W. China.

Height $8\frac{1}{2}$ feet. Has grown in the Wall Garden since 1907. Though it is hardy, the red fruit has not yet ripened.

***V. sieboldii.** Japan.

Syn. **V. reticulatum** (of gardens).

V. tinus. Laurestinus. Mediterranean region and S.E. Europe.

V. tomentosum. China and Japan.

„ var. **plicatum.** Japanese Snowball.

VINCA. Apocynaceæ.

V. major. Larger Periwinkle. Central and S. Europe to Caucasus.

V. minor. Lesser Periwinkle. Europe, Caucasus and Asia Minor.

VIOLA. Violaceæ.

V. cornuta. Pyrenees.

V. gracilis. Greece, etc.

***V. hederacea.** New Holland Violet. Australia.

V. odorata. Sweet Violet. Europe, etc.

„ Garden varieties.

VITEX. Verbenaceæ.

V. Agnus-castus. Chaste Tree. Mediterranean region.

***V. incisa.** Chinese Chaste Tree. China.

Syn. **V. Negundo.**

Height 4 feet. Has grown without any protection. Planted 1914.

†**V. lucens.** New Zealand.

Syn. **V. littoralis.** New Zealand.

VITIS. Vine. Ampelidaceæ.

V. Coignetiae. Japan.

V. henryana. China.

V. heterophylla. China, Corea and Japan.

V. megalophylla. W. China.

V. quinquefolia. True Virginian Creeper. E. North America.

V. Thompsonii. China.

W

WAHLENBERGIA. Campanulaceæ.

W. gentianoides. New Zealand.

Syn. **W. vincæflora.**

W. serpyllifolia. Dalmatia.

WALDSTEINIA. Rosaceæ.

W. trifolia. Europe.

WEIGELA. See **DIERVILLA.****WEINMANNIA.** Saxifragaceæ.

†**W. racemosa.** New Zealand.

WESTRINGIA. Labiatae.

***W. rosmariniformis.** Australia.

WIGANDIA. Hydrophyllaceæ.

†**W. Vigieri.** Mexico.

WITSENIA. Iridaceæ.

†**W. corymbosa.** S. Africa.

WISTARIA. Leguminosæ.

W. brachybotrys. Japan.

W. chinensis. N. China.

„ var. **alba.**

W. frutescens. S.E. United States.

„ var. **alba.**

W. multijuga. N. China.

„ var. **alba.**

„ var. **rosea.**

X

XANTHOCERAS. Spindaceæ.

X. sorbifolia. N. China.

The Chinese Chestnut has flowered in the Wall Garden for several years now, and has also fruited. It is a slow growing plant. The fruit is about the size of a Horse Chestnut.

XANTHORRHIZA. Ranunculaceæ.

X. apiifolia. Shrub Yellow-root. United States.

XANTHOXYLUM. Rutaceæ.

X. Bungei. China.

X. planispinum. China and Japan.

Two very good bushes of this shrub grow in the Wall Garden, the larger being 12 feet in height and 9 feet in diameter. In winter they are both covered with red berries (which taste like pepper) and keep enough foliage to make a setting for them.

Y

YUCCA. Liliaceæ.

†**Y. aloifolia.** S. United States, W. Indies.

Y. filamentosa. Silk Grass. N. America.

Y. glauca. S. Central United States.

Syn. **Y. angustifolia.**

Y. gloriosa. Adam's Needle. S.E. United States.

Y. recurvifolia. S.E. United States.

***Y. Whipplei.** California and Arizona.

Z

ZAUSCHNERIA. Onagraceæ.

- Z. californica.** Californian Fuchsia. California.
,, var. **splendens.**

ZELKOVA. Urticaceæ.

- Z. acuminata.** Corea, China and Japan.
Syn. **Z. Keaki.**

A hardy tree, now 21 feet in height. The spread of branches is 15 feet. Its position, among trees, is very sheltered. Planted in the Arboretum 1902.

- Z. davidiana.** N. and Central China and Corea.

Height 8 feet. A tree with thorns 3 inches long. It is sheltered by trees from north and east winds, and flowered in May, 1916. The winged fruit formed the following summer. Planted 1910.

ZENOBIA (ANDROMEDA). Ericaceæ.

- Z. speciosa.** N. Carolina to Florida.
Syn. **Z. cassinefolia.**

ZEPHYRANTHES. Zephyr Flower. **Amaryllidaceæ.**

- †**Z. Atamasco.** Athamasco Lily. United States.
Z. candida. La Plata.
†**Z. carinata.** Central America, W. Indies.
***Z. sp.**

ZIZYPHUS. Rhamnaceæ.

- ***Z. sativa.** Jujube. S.E. Europe to Afghanistan, China and Japan.
Syn. **Z. vulgaris.**

ZYGOPETALUM. Orchidaceæ.

- †**Z. Mackayi.** Brazil.

APPENDIX

THE following is a list of those plants which have been injured during the winter 1916-1917 :—

(K.—killed. D.—damaged. S.D.—severely damaged.)

<i>Abutilon vitifolium</i> . . .	S.D.	<i>Escallonia organensis</i> . . .	K.
<i>Acacia baileyana</i> . . .	K.	<i>Eucryphia cordifolia</i> . . .	D).
<i>A. dealbata</i>	S.D.		(slightly.)
<i>A. riceana</i>	K.	<i>Eupatorium weinman-</i>	
<i>Agave americana</i> . . .	K.	<i>nianum</i>	D.
<i>Amicia Zygomeris</i> . . .	K.		(making new shoots.)
<i>Berberis buxifolia</i> , var.		<i>Fuchsia Riccartoni</i> . . .	D.
<i>nana</i>	S.D.	<i>Genista hispanica</i> . . .	D.
<i>Bowkeria gerrardiana</i> . .	K.	<i>Grevillea sulphurea</i> . . .	D.
<i>Buddleia lindleyana</i> . .	K.	<i>Helianthemum formo-</i>	
<i>Calceolaria violacea</i> . .	K.	<i>sum</i>	S.D.
<i>Callistemon salignus</i> . . .	D.	<i>Helichrysum rosmarini-</i>	
<i>Cercis chinensis</i>	D.	<i>folium</i>	S.D.
<i>Cestrum Newelli</i>	K.	<i>Hoheria populnea</i> . . .	D.
<i>Cistus florentinus</i> . . .	S.D.		(making new shoots.)
<i>C. purpureus</i>	K.	<i>Illicium religiosum</i> . . .	S.D.
<i>Citharexylon</i>	K.	<i>Leptospermum lævi-</i>	
<i>Convolvulus Cneorum</i> . .	K.	<i>gatum</i>	K.
<i>Cordyline australis</i> . . .	D.	<i>L. scoparium</i> var. <i>Bosca-</i>	
<i>Corokia macrocarpa</i> . . .	S.D.	<i>weni</i>	K.
<i>Cupressus Benthami</i> . . .	K.	<i>Marsdenia erecta</i> . . .	K.
<i>C. cashmeriana</i>	D.	<i>Menziesia pilosa</i> . . .	D.
<i>C. lusitanica</i>	S.D.	<i>Metrosideros lucida</i> . .	S.D.
<i>C. macnabiana</i>	K.	<i>M. robusta</i>	K.
<i>Dacrydium cupressinum</i> . .	D.	<i>Myrtus bullata</i>	K.
<i>Dicksonia antarctica</i> . .	S.D.	<i>M. Luma</i>	D.
<i>D. squarrosa</i>	S.D.	<i>Nothofagus Solanderi</i> . .	S.D.
<i>Eryngium pandanifolium</i> . .	K.		
<i>Escallonia floribunda</i> . .	S.D.		

<i>Olea europæa</i> . . . K.	<i>Rhododendron Smithii</i>
<i>Olearia Forsteri</i> . . . D.	<i>aureum</i> . . . D.
<i>O. myrsinoides</i> . . . D.	(leaves only).
<i>Opuntia decumana</i> . . . K.	<i>R. sublanceolatum</i> . . . K.
<i>Othonnopsis cheirifolia</i> . . . D.	<i>Rosa bracteata</i> . . . D.
 <i>Panax sambucifolium</i> . . . S.D.	<i>Sophora tetraptera</i> . . . D.
<i>Passiflora cœrulea</i> . . . D.	<i>Statice rosea</i> . . . K.
<i>Phlomis</i> . . . S.D.	<i>Teucrium fruticans</i> . . . K.
<i>Pinus echinata</i> . . . D.	<i>Tricuspidaria dependens</i> . . . D.
<i>Pittosporum undulatum</i> . . . S.D.	<i>T. lanceolata</i> . . . D.

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