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ALPINE A B C

A. METHUEN

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AN ALPINE A B C

AN ALPINE ABC

AND LIST OF EASY
ROCK PLANTS

ARRANGED BY

A. METHUEN

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PREFACE

THESE notes are for the beginner and the amateur. Their purpose is—

(1) To give a list of the most attractive and the easiest Alpine flowers. They do not include difficult or curious plants. These are for the specialist.

(2) To guide him in the placing and culture of such plants. The notes are designedly short, and more elaborate lists and advice can be found in larger Alpine garden books.

The compiler has had experience of most of these plants, and has cultivated them with (more or less) success, but the reader will remember that the directions which are appropriate to a dry and sandy position will not suit a low and damp one, and he must adjust his methods to his necessities.

Here are a few rules which the amateur may follow with the qualifications which the aspect, the soil and the configuration of his garden make necessary:—

1. The best aspect is south-east.

2. The rock garden should be built of hard stone in tiers, and the rocks should slope slightly so that the rain may run away. If you must use sandstone, see that it is well weathered.
3. Let your rocks be large, plentiful, well-placed and laid flat. Nothing is more odious than the ordinary "rockery" with a number of small, pointed and jagged stones.
4. The soil should be mixed with grit and should be of good quality. Most alpines like a good garden soil, i.e., a light loam. If the soil is sandy it should be enriched by fibrous loam and leaf mould. If it is poor, give a little mild horse manure to the stronger plants. If it is heavy, it should be mixed with light soil and well-drained. Sphagnum moss is useful for plants which like damp.
5. If the soil is wanting in lime, lime should be added where its use is indicated. Most alpines like lime, but some detest it. Old mortar-rubble is good. It is useful to have a lime area and a non-lime area, and to keep the lime-loving plants separate from the lime-haters.

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6. Plant your alpines close to or at the foot of the rocks, for most plants like the shelter and the damp of a rock. Many plants should be wedged tightly between stones, e.g. the saxifrages.
7. Top-dress your plants two or three times a year and see that small plants are kept firmly in the ground so that their roots are not exposed. Once a year top-dress with stone chips. Plants like this dressing, and it keeps the soil moist in summer.
8. When planting spread out the roots well, giving them plenty of room, and press down firmly. In dry weather plunge the plant into water before setting it in its place.
9. You should always have one or two moraines for some of the more delicate alpines, especially those with hair-like roots which only flourish in such soils, e.g., *gentiana verna* and the *androsaces*.¹

¹ The enthusiast who wishes to grow the high Alpine plants to perfection must make a small moraine, and he will do well to look to the natural conditions under which these plants live and which he hopes to imitate. A friend gives the following recipe :—

The moraines of the Alps are simply tumbled

10. Plants of the same family should be kept together where this is possible. It is more interesting to have a saxi-

masses of mountain débris, stones of all sizes and shapes, sand and shingle, all knit firmly together, and containing the merest trace of primitive vegetable soil, washed down from the rocky heights.

In our gardens the moraine must be made on the same plan. It should face as near as possible south-east, and be so arranged that its surface is well raised above ground level, the better to afford an easy view of its treasures.

Let the main bulk be made up of stones varying from the size of a man's head to that of his fist. All the spaces between these stones are tightly packed in the building with the "moraine mixture," which is composed of fine quarry siftings, granite or limestone chips, or any other similar material which may be available. This is mixed with about one-fifth of its bulk of topsoil peat and leaf-soil.

The whole must be not less than 18 inches in depth, and should be bounded behind by rocky walls. The surface should show a few weathered stones half hidden in the general mass.

A moraine built on the lines indicated here will retain moisture for very long periods and, in dry weather, may be watered with the rose.

It is the larger stones which play the most important part in retaining water, and if these are of a porous nature, so much the better. Round these stones the roots of the plants will cling, always assured of those conditions which make life and growth easy for them.

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frage section, a primula section, a campanula section, than to have the various species of these plants scattered minutely about the garden.

11. Aim at mass effects. The beauty of alpine flowers in their homes is largely derived from the lovely mass of colour which glows on the slopes and meadows. Thus make a carpet of gentiana verna or acaulis (200 or so if you can raise them). Among these plant the smaller anemones, androsaces, dianthus alpinus and the small primulas. Above these, on a higher slope, plant masses of dryas, the larger anemones, and the blue aquilegias.
12. You will have more success and a more effective display if you grow a moderate number of plants well than a large number of plants poorly. Only grow plants that thrive in your soil and climate. Do not worry about rare and difficult plants. Leave them to specialists.
13. Plant flowering shrubs at the back of your rock garden, but do not overdo them. They should give a background, but should not dominate. The best are given in the following pages.

14. Rock plants are delicate and short-lived things and must constantly be renewed. Never cease propagating either by division or cuttings or seeds. Collect your own seeds. They will often do better than bought seeds. It is generally better to sow such seeds as soon as they are ripe.
15. Above all, remember that advice, rules and directions are useless without the seeing eye and the observing mind. Watch constantly and learn.

A. M.

July, 1922.

THE ALPINE HOUSE

IF you have an unheated greenhouse and can afford the space you will be able to grow many Alpine treasures under glass better than in the open. In their native mountains, protected from excessive rain by a blanket of snow, these little plants are warm and thriving and ready for the next spring. But under our bleak and moist sky, and exposed to our heavy rains, the androsaces and such-like damp off or become miserable and ineffective mounds of flannel.

In November, therefore, put some of your Alpines in your cold house, having carefully planted them in pots or pans in their proper soil, and in due time you will have a charming display of flowers, all healthy and untouched by dirt or damp.¹

¹ Plants intended for display in the Alpine house should be grown in shallow pots or pans. Two very useful sizes are 4 inches deep by 6 inches wide and 4½ inches deep by 6½ inches wide.

The soil must be carefully compounded to suit

The following are specially suited to this treatment :—

All the androsaces.

The smaller anemones, e.g. Appennina,
Pulsatilla and Robinsoniana.

Many campanulas, e.g., G. F. Wilson,
garganica, pulla and pusilla.

Cyananthus lobatus.

Cyclamen Coum and Europæum.

Dianthus alpinus and neglectus.

Gentiana acaulis and verna.

Dryas lanata.

Erodium corsicum.

Fritillaria.

Hepatica.

Houstonia.

Hypericum reptans.

Iris reticulata.

Linum arboreum.

Lithospermum graminifolium.

the requirements of each plant. It should not be finely sifted, and should contain plenty of coarse sand and stony material.

The saxifrages, and, in fact, all the saxatile plants, are best grown and displayed by planting among comparatively large stones which are sunken deeply in the pans and form a miniature rock-work on the surface. Very pleasing effects may be obtained by the use of weathered pieces of stone arranged as a setting for the plant.

THE ALPINE HOUSE

Malvastrum Munroanum.

Morisia hypogæa.

Myosotis rupicola.

Nertera depressa.

Omphalodes Luciliæ.

Onosma.

Oxalis enneaphylla, etc.

Papaver alpinum.

Penstemon cæruleus.

Phlox subulata, various.

Potentilla nitida.

Primula Beesiana, Bulleyana, auricula,
farinosa, frondosa, helodoxa, Juliæ,
Lissadell, Littoniana, rosea, Winteri.

Ramondia.

Rhododendron chamæcistus.

Saponaria ocymoides.

Saxifrages, nearly all.

Schizocodon.

Schizostylis.

Shortia uniflora.

Silene.

Soldanella.

Trollius asiaticus.

Viola pedata.

Wahlenbergia.

Many delightful small bulbs, e.g. Narcissus triandrus albus, etc., make a picture in an Alpine house.

AN ALPINE ABC

ABELIA RUPESTRIS (4-5 ft.). Pink.

A beautiful shrub for a back position.

ACÆNA MICROPHYLLA (NOVÆ ZEALANDIÆ)
(1-2 in.). Red.

A useful carpet plant which will grow anywhere.

ACANTHOLIMON GLUMACEUM (5-7 in.). Rose.

— **VENUSTUM** (6-8 in.). Rose.

Plant in the sun in loam, lime and sand between stones. Propagate by layering or from seed.

ACHILLEA CLAVENNÆ (6-8 in.). White.

— **TOMENTOSA** (8-12 in.). Yellow.

Plant south in a chink in loam, lime and grit.

Propagate by division or from seed.

ADONIS VERNALIS (10-15 in.). Yellow.

— **AMURENSIS** (10-15 in.). Yellow.

Plant south in a good sandy loam. Divide every three years or raise from seed.

ÆTHIONEMA CORIDIFOLIUM (6-7 in.). Rose-lilac.

— **GRANDIFLORUM** (10-12 in.). Rose.

— **PULCHELLUM** (8-12 in.). Rose.

Plant all these south in a chink in lime and loam. Cut back after flowering, and raise from cuttings or from seed.

AJUGA REPTANS (4-8 in.). Dark blue.

Plant in half shade. Propagate by division of tufts in spring.

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ALLIUM CÆRULEUM (12-18 in.). Blue.

Plant south in sandy loam and propagate by offsets.

ALYSSUM ARGENTEUM (3 in.). White.

— **MONTANUM** (2-4 in.). Yellow.

— **PYRENAICUM** (8 in.). White.

— **SAXATILE** (12 in.). Yellow.

There is a double form, and a light yellow one (sulphurea).

— **SPINOSUM** (7-8 in.). White.

Plant all above behind a stone or between stones on the slope in gritty soil. Propagate by cuttings, division or seed, and raise new plants every two years.

ANDROSACE CARNEA (3-4 in.). Pink.

— **LAGGERI** (3-4 in.). Pink.

Plant these on the flat in sand, loam and grit, with a little peat. Most Androsaces dislike excessive moisture, and should be protected from rain in winter. They should be planted in chinks or between stones. Most do well in the moraine. Propagate by division or cuttings or seed.

— **LANUGINOSA** (v. *Leichtlini*) (6-8 in.). Rose.

Plant south in loam and lime behind a rock so that it may hang down. Cut back each year.

— **SARMENTOSA** (v. *Chumbyi*) (5-8 in.). Rose.

Plant south in gritty loam with a little lime or in the moraine.

— **VILLOSA** (2-4 in.). Light rose.

Treat like *A. Carnea*.

ANEMONE ALPINA (also **SULPHUREA**) (12-24 in.). White or yellow.

Plant south in good loam and lime.

— **APPENNINA** (6 in.). Blue.

Plant in half shade in sandy loam.

AN ALPINE A B C

ANEMONE BLANDA (6 in.). Blue.

Plant south in good loam.

— **HEPATICA**. *See* Hepatica.

— **NARCISSIFLORA** (10 in.). White or purplish.

Plant in half shade in damp ground in loam and peat.

— **NEMEROSA** (5-6 in.). White.

A. *Robinsoniana* is a beautiful blue form ; and A. *Allenii* is also very fine.

Plant west in sandy loam.

— **PULSATILLA** (6-12 in.). Purple.

Plant east in limy soil. It often dies off and needs constant renewal.

— **SYLVESTRIS** (6-18 in.). White.

— **VERNALIS** (2-8 in.). White and violet.

Plant south in half shade in sandy loam. Most of the anemones may be propagated by dividing the roots in spring or autumn or by seeds.

ANTENNARIA TOMENTOSA (1 in.). White.

Plant in light soil. Propagate by division in spring or by seed.

ANTHEMIS AIZOON (2-4 in.). White.

Plant in full sun in light soil. Propagate by dividing the roots in spring or from seed.

ANTHERICUM LILIAGO (1-2 ft.). White.

— **LILIASTRUM** (1-2 ft.). White.

Plant in large clumps in half shade in loam and leaf-mould. Top-dress with mild manure. Divide the roots.

ANTHYLLIS MONTANA (3-6 in.). Pink or purple.

Plant south in a chink in loam and lime. Propagate by cuttings or seed.

ANTIRRHINUM ASARINA (3-4 in.). Pale yellow.

— **GLUTINOSUM** (3-4 in.). White and yellow.

Plant south in a rock crevice in loam and lime. Propagate by seeds or by cuttings in September.

AN ALPINE A B C

APHYLLANTHES MONSPELIENSIS (8-12 in.).

Deep blue.

Plant in wet ground in peat and loam. Increase by dividing the roots in the spring.

AQUILEGIA ALPINA (10-20 in.). Blue.

— **CÆRULEA** (9-12 in.). Blue.

— **GLANDULOSA** (9-12 in.). Blue.

Plant south in deep gritty loam with a little manure. They want renewing every year or two by seeds, or by dividing in September the root stock. They are beautiful but difficult things.

ARABIS ALBIDA (6 in.). White.

Plant south in a dry spot and increase by seeds. Cuttings may also be taken. The double-flowered variety is the better.

ARABIS AUBRIETIODES (6-12 in.). Pink & white.

Plant south in rock crevice in sandy loam.

ARENARIA BALEARICA (1 in.). White.

Plant near a rock and it will soon cover it. It likes shade.

— **CÆSPITOSA** (6-8 in.). White.

Plant in a sunny spot in sandy loam. Increase both the above by division.

— **MONTANA** (3-6 in.). White.

Plant north-west in loam and lime on a slope behind a rock where it can hang over it. Propagate by cuttings or seed.

ARMERIA CÆSPITOSA (1-2 in.). Pale lilac.

— **LAUCHEANA** (3 in.). Crimson.

Plant in half shade. Seed or division.

— **MARITIMA** (Common Thrift) (1-2 in.). Pink or white.

Plant these south in loam and lime between two rocks. Divide the tufts.

ARNEBIA ECHIOIDES (9-12 in.). Yellow with spot.

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Plant west in good light loam and grit. Increase by cuttings.

ARNICA MONTANA (1 ft.) Yellow.

Plant in peat and sand. Propagate by division.

ASPERULA HIRTA (6-10 in.). White.

Plant south in sand and loam. Propagate by cuttings or seed.

ASPHODELUS LUTEUS (2-3 ft.). Yellow.

Plant in damp or half shade in loam with a little manure. Divide in early spring.

ASTER ALPINUS (6-9 in.). White or rose.

Plant in good light loam. Increase by seeds or cuttings in April, and protect from slugs.

ASTRANTIA (MAJOR and MINOR) (18 and 6 in.). White or pink.

ATRAGENE ALPINA (or Clematis). Blue or white.

Plant south-west close to a small shrub that it may climb over, in loam, lime and leaf-mould. Propagate by seed.

AUBRIETIA (2½-4 in.).

Plant on a slope or between stones in good loam. Propagate by seeds in spring or by cuttings in summer or by layering or by division in autumn. There are many new and charming colours, e.g., Magician.

AURICULA ALPINA (4-6 in.). Yellow.

Plant south or south-east in a chink in deep sandy loam. Propagate from seed in autumn.

AZALEA BALSAMIFLORA (12 in.). Rose.

— **ROSÆFLORA** (12 in.). Rose.

Plant in the middle or at the back in loam and leaf-mould. The Kurume Azaleas are very suitable for a rock-garden.

BELLIS CÆRULESCENS (1-3 in.). Blue.

Plant south, and increase by division.

AN ALPINE A B C

BELLIUM BELLIOIDES (4-6 in.). White.

Plant south or south-west in ordinary soil.

Increase by seeds.

BERBERIS.

There are many new and beautiful species which may be planted at the back.

BULBOCODIUM VERNUM (4-6 in.). Rose-purple.

Plant south in sandy loam, and increase by offsets of the bulbs.

CALAMINTHA ALPINA (3 in.). Purple.

Plant in ordinary soil and use for carpeting.

Propagate from seed when ripe.

CALINDRINIA UMBELLATA (6 in.). Magenta.

Plant south or south-west in sandy soil and grit. Increase from seed.

CAMPANULA ALLIONI (3-4 in.). Blue.

Plant in the moraine. Rather difficult and likes moisture.

— **CÆSPITOSA** (3-4 in.). Blue.

— **CARPATICA** (9-12 in.). Blue.

— **CENISIA** (5-8 in.). Blue.

Plant in the moraine.

— **G. F. WILSON** (6 in.). Blue.

— **GARGANICA** (3-6 in.). Blue.

— **GARGANICA VILLOSA** (3-6 in.). Blue.

Plant these in a cleft in the sun.

— **ISOPHYLLA** (3-5 in.). Blue.

— **MURALIS** (or **PORTENSCHLAGIANA**) (3-8 in.). Blue.

— **PULLA** (3-6 in.). Blue.

— **PUSILLA** (3-6 in.). Blue.

All easy of growth.

— **RAINERI** (3-6 in.). Blue.

Plant south in leaf-mould, lime and grit.

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CAMPANULA RUPESTRIS.

Plant south between stones in loam, sand and lime.

— STEVENI NANA.

— WALDSTEINIANA.

Plant south in loam, grit and leaf-mould.

Some of the above have white forms. Nearly all the Campanulas can be propagated by cuttings (best way) or division or seed, and they like sandy loam.

CARDAMINE TRIFOLIATA (3-6 in.). White.

Plant in damp and half shade in ordinary soil. Propagate from seeds when ripe.

CERASTIUM TOMENTOSUM (6 in.). White.

Plant on a slope in sand and lime. Propagate by division, cuttings or seeds.

CHEIRANTHUS ALLIONI (6 in.). Orange.

Plant in full sun in good soil with lime. Propagate from seed when ripe.

— ALPINUS (6-12 in.). Yellow.

— LINIFOLIUS (6-8 in.). Purplish blue.

— MUTABILIS (2 ft.). Cream, changing to purple and other colours.

Plant south in loam and lime. Propagate from seed (best way) or by division.

CHOISYA TERNATA (3-7 ft.). White.

A good shrub for the back. Increase by cuttings.

CISTUS FORMOSUS. Yellow.

A shrub for the middle distance.

Most of the cistuses are good for the back.

CLEMATIS ALPINA. See Atragene.

CODONOPSIS OVATA (12-18 in.).

Plant in front of a stone high up in loam and sand. Propagate by seeds.

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COLCHICUM AUTUMNALE (3-4 in.). Lilac.

Plant in good dampish sandy soil in a sunny place. Increase by offsets from the corm.

CONVOLVULUS CNEORUM (1-2 ft.). Pale rose.

Propagate by cuttings from the non-flowering shoots.

COROKEA COTONEASTER.

Plant at back. A curiously attractive shrub.

CORONILLA IBERICA (1-2 in.). Yellow.

Plant in loam and lime, and propagate by cuttings or division.

COTONEASTER ADPRESSA.

A dwarf shrub.

CROCUS.

There are many charming kinds for the rock-garden.

CUPRESSUS LAWSONIANA NANA.

A dwarf shrub for the middle distance.

CYANANTHUS LOBATUS (3-4 in.). Purplish blue.

Plant south-east in sandy soil, leaf-mould and grit, and cover in winter. Increase by cuttings. A difficult plant and better in the Alpine house.

CYCLAMEN COUM (3 in.) Purple.

— **EUROPÆUM** (5-6 in.). Reddish.

Plant in half shade or under trees in loam, lime, leaf-mould and sand.

CYPRIPEDIUM CALCEOLUS (12-16 in.). Brown.

Plant in half shade in damp fibrous loam, lime and peat. Propagate by division.

— **SPECTABILE** (12-18 in.). White and rose.

Plant as above. A lovely plant but difficult.

CYTISUS SHIPKAENSIS (2 ft.). White.

— **ARDOINI** (6 in.). Yellow.

Plant these low shrubs at back.

AN ALPINE A B C

CYTISUS KEWENSIS (12 in.). Pale yellow.

Plant behind a rock to hang down.

DAPHNE BLAGAYANA (12 in.). White.

Plant in half shade in leaf-mould, sand and peat. Surround with stones and peg down the young growths.

— **CNEORUM** (12 in.). Rose and pink.

Plant south-east on the slope close to a rock, in loam, sand and peat. Increase both these by layering.

— **FIONIANA** (2-3 ft.). Pink.

A shrub for the back.

— **RUPESTRIS** (2-4 in.). Rose.

Plant in half shade in peat, lime and white sand close to a rock or between two rocks. Propagate by grafting on mezereum.

DELPHINIUM NUDICAULE (1½ ft.). Red and yellow.

A charming dwarf species. Plant south in good light soil. Propagate from seed in April or by division of the roots in spring or by cuttings.

DIANTHUS ALPINUS (3-4 in.). Deep rose.

Plant south-east in the moraine in loam, lime, leaf-mould and grit. Top-dress carefully.

— **ARENARIUS** (8 in.). White.

— **CÆSIUS** (6 in.). Pink.

— **DELTOIDES** (6 in.). Pink.

— **NEGLECTUS** (2-3 in.). Dark rose.

— **PLUMARIUS** (3-5 in.). White or rose.

Plant all the above south-east in good loam, leaf-mould and grit, or in the moraine. Top-dress well several times a year. Propagate from seed or by division or by cuttings. Most of them (but not Neglectus) like lime.

AN ALPINE A B C

DODECATHEON (6 in.). Rose or purple.

Plant in half shade in a damp spot in loam and leaf-mould. Increase by seed or division.

DONDIA EPIPACTIS (3-6 in.). Yellow.

Plant south or south-east in loam and leaf-mould. Propagate by division.

DOUGLASIA VITALIANA (1-2 in.). Yellow.

Plant south-east in the moraine, or better still, in the Alpine house, with a little lime. Increase by seed.

DRABA AIZOIDES (2-3 in.). Yellow.

— **DEDEANA** (2-3 in.). White.

— **OLYMPICA** (2-3 in.). White to lilac.

Plant south in a chink in loamy soil and lime. Increase by seed or division.

DRYAS LANATA (3-4 in.). White.

Plant south in a crevice to hang down. This is the best *Dryas*.

— **OCTOPETALA** (3-4 in.). White.

Plant south-east or south-west on a slope, where it can hang down, in loam and grit.

EDELWEISS. *See* *Gnaphalium*.

EDRAIANTHUS. *See* *Wahlenbergia*.

EMPETRUM NIGRUM (12-18 in.). Pink.

A dwarf shrub. Plant in peat and loam, and increase by cuttings.

EPIMEDIUM (6-12 in.). Various colours.

Plant south-east or south-west in sandy soil on the higher part of the rock-garden. Increase by division.

ERICA CARNEA (6 in.). Pale red.

Plant on a slope and prune after flowering. There are many hybrids. Increase by cuttings.

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ERIGERON ALPINUS (9-12 in.). Purple.

— **MUCRONATUS** (9-12 in.). White and pink.
Plant south-east in loam, leaf-mould and grit.
Increase by seed or division.

ERINUS ALPINUS (5-6 in.). Various colours.

Plant south-east or south-west on a slope
between rocks in sandy loam. Increase by
seed and sow in chinks.

The variety *Carmineus* is good.

ERODIUM CORSICUM (9-12 in.). Red.

Plant south in light soil. Propagate by
division of the roots in spring or from seed
when ripe.

ERYSIMUM PULCHELLUM (9-12 in.). Yellow.

Plant south-east in ordinary soil, and increase
by seeds or by division.

ERYTHRÆA DIFFUSA (4-6 in.). Rose.

Plant in half shade in loam, leaf-mould and
sand. Increase by seed or division.

ERYTHRONIUM (4-6 in.). (Dog's Tooth Violet.)

Various colours.

Plant south-east in half shade in loam and leaf-
mould. There are many species and most are
good. Separate the offsets.

EUONYMUS NANUS.

A dwarf shrub.

FRITILLARIA MELEAGRIS (12-18 in.). Purple
on yellow ground.

Plant in a damp place in half shade in loam and
leaf-mould. Increase by seeds.

The other fritillarias are also good.

FUCHSIA PUMILA (4-8 in.). Scarlet.

Plant south-west or south-east in ordinary
soil, and increase by cuttings.

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GALAX APHYLLA (3-6 in.). White.

Plant in a damp place and in half shade in loam, leaf-mould and peat. Increase by seeds or division.

GAULTHERIA NUMMULARIA. White and pink.

A trailer. Treat as Galax.

GENISTA ARDOINEI (4-6 in.). Yellow.

— **PROSTRATA** (4-6 in.). Yellow.

Two dwarf brooms for the back or middle. Increase by seeds.

GENTIANA ACAULIS (2-4 in.). Blue.

Plant south in loam and lime or in good garden soil enriched with a little manure. It will do well in the moraine. Increase by seed or division.

— **ASCLEPIADEA** (6-18 in.). Blue.

Plant south-west on a slope in half shade. Increase by seed or division.

— **FARRERI** (3 in.). Light blue.

Plant south-east in peat and leaf-mould. Increase by cuttings.

— **LUTEA** (3-5 ft.). Yellow.

Plant at the back, and increase by dividing the roots.

— **PNEUMONANTHE** (8-10 in.). Blue.

Plant in damp peat, and raise from seed.

— **SEPTEMFIDA** (6-18 in.). Blue.

Plant in half shade in loam and peat. Increase by division or seeds. There is a trailing form *Lagodichiana*—good and easy.

— **SINO-ORNATA** (3 in.). Blue.

Treat as *Farreri*. A good plant.

— **VERNA** (1-3 in.). Blue.

Plant south or south-east in the moraine in peat, loam and sand. Top-dress well and firmly and keep damp. It likes a little lime.

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Increase from seed, which should be sown when ripe.

The form *angulosa* is good and easy.

GERANIUM ARGENTEUM (4-6 in.). Pale rose.

— **CINEREUM** (4-6 in.). Red.

Plant between rocks in loam and lime, and enrich with a little manure. Increase by seeds or division.

GEUM REPTANS (2-4 in.). Yellow.

Plant south-east on a slope in ordinary soil or in the moraine. Increase by runners or by seeds.

— **ROSSI** (3-6 in.). Yellow.

Plant in half shade or in the moraine. Increase by division or by seeds.

GLOBULARIA NANA (1-2 in.). Blue.

Plant south near and behind a rock in sandy soil and grit. Increase by seeds or division.

GNAPHALIUM LEONTOPODIUM (3-6 in.). Yellow.

Plant south in loam and lime, and protect from cold winds in May. Increase by seeds.

GUNNERA DENTATA (2-3 ft.).

A dwarf kind for a shady place. Increase by detaching the root-shoots.

GYPSOPHILA CERASTIODES (5-12 in.). White.

— **REPENS** (3-6 in.). White or rose.

Plant south in sandy soil and grit with a little lime. Increase from seed.

HABERLEA RHODOPENSIS (4-6 in.).

Plant, like *Ramondias*, in shade between rocks on north or north-west on the face of a bank in loam and peat. Use no lime. Increase from seed.

HELIANTHEMUM (3-8 in.). Various colours.

Plant south or south-east on a slope in sandy soil and lime. Raise from seed or (more easily) from cuttings. The best are Sudbury Gem, Venustum plenum, Terracotta, Carneum.

HELICHRYSUM ARENARIUM (3-4 in.). Yellow.

Plant south in sandy loam (no lime), and increase by division.

— **BELLIODES** (3-4 in.). White.

HELVETICA SOLIERII.

A creeping mossy plant like *Arenaria Balearica*.

HEPATICANGULOSA (6-12 in.). Light blue.

Plant in half shade in rich porous soil. Propagate by root-division in spring or from seed when ripe.

— **TRILOBA** (4-6 in.). Blue.

HEUCHERA (9-15 in.). Various colours.

Plant south or south-east in good soil. The best are Sanguinea, Brizoides, Lady Greenall and Walker's. *Tiarellaoides* is also good. Propagate from seed when ripe or by separating the crowns in the autumn.

HORMINUM PYRENAICUM (6-12 in.). Bluish purple.

Plant between stones in good soil. Propagate by division in spring or from seed.

HOUSTONIA CÆRULEA (and **ALBA**) (2-3 in.). Blue.

Plant in leaf-mould and loam, and protect from the rain in the winter. Seed should be sown every year, as it soon dies out.

HUTCHINSIA ALPINA (2-4 in.). White.

Plant south or south-west between rocks in loam and lime. Raise from seed.

HYPERICUM CORIS (12 in.). Yellow.

— **FRAGILE** (12-15 in.). Yellow.

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HYPERICUM GRACILE (12-15 in.). Yellow.

— **OLYMPICUM** (12-18 in.). Yellow.

— **POLYPHYLLUM** (12-18 in.). Yellow.

Plant all these behind a rock, so that they may hang down, in sand, loam and grit. They may be cut back after flowering. Increase by cuttings.

— **REPTANS** (1-2 in.). Yellow.

Treat as above, but do not cut back too much.

IBERIS CORREÆFOLIA (3-4 in.). White.

— **GIBALTICA** (4-5 in.). White.

— **SAXATILIS** (3-6 in.). White.

— **SEMPER VIRENS** (4 in.). White.

Plant on a slope behind a rock in sandy soil. Increase by seeds or root-cuttings.

INCARVILLEA DELAVAYI (1½ ft.). Rose.

Plant south in good loam and leaf-mould. Increase by seeds.

IONIPSIDIUM (2 in.). Lilac.

A charming annual. Sow in half shade at intervals of 2-3 weeks through the spring and summer. It looks well in the Alpine house.

IRIS CRISTATA (4-6 in.). Blue.

— **GRACILIPES** (4 in.). Blue.

— **HISTRIOIDES** (6 in.). Blue.

— **LACUSTRIS** (4 in.). Blue.

— **PUMILA** (4-5 in.). Violet-purple.

— **RETICULATA** (12 in.). Violet.

Plant these in half shade in loam and peat, and propagate by seeds or division, *Histrioides* and *Reticulata* are bulbous.

JASIONE PERENNIS (1 ft.). Blue.

Plant south in sandy loam, and protect from rain in winter. Increase by seeds or by division of roots.

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JUNIPERUS HIBERNICA NANA (6-18 in.).

A charming dwarf shrub.

— **PROSTRATA**.

— **TAMARISCIFOLIA**.

Good dwarf shrubs for the back.

LEONTOPODIUM. See *Gnaphalium*.

LEWISIA REDIVIVA (1-3 in.). Pink.

Plant south in a crevice and keep damp.

Increase by seeds or division of the roots.

LIBERTIA IXIODES (12-18 in.). White.

Plant south or south-east in loam and sand.

Increase by dividing the tufts.

LINARIA ALPINA (6 in.). Bluish.

Plant south or south-east on a slope and between rocks. Cut back after flowering, and increase by seed. Rosea is a good form.

LINNÆA BOREALIS (1-1½ in.). Reddish.

Plant behind a rock in the shade and in damp soil in peat and loam, and increase by division.

LINUM ALPINUM (6 in.). Blue.

Plant south or south-east in sand and loam.

Cut back after flowering.

— **ARBOREUM** (12 in.). Yellow.

— **FLAVUM** (12 in.). Yellow.

Plant south-east or south-west in loam and lime grit, and take cuttings.

— **NARBONENSE** (12-18 in.). Blue or white.

— **PERENNE** (12-18 in.). Blue or white.

Plant south in ordinary soil with a little lime.

Propagate from seed. Cut back after flowering.

LITHOSPERMUM GRAMINIFOLIUM (6-12 in.).

Deep blue.

Plant south-east in loam and lime. Increase by seeds or division.

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LITHOSPERMUM INTERMEDIUM (3-6 in.).

Blue.

As above.

— PROSTRATUM ($1\frac{1}{2}$ -3 in.). Light blue.

Plant on the slope and sheltered from the wind in loam, peat, leaf-mould and grit. It dislikes lime. There is also a lighter blue form, called **Heavenly Blue**. Increase by cuttings.

— ROSMARINIFOLIUM (5-7 in.). Blue.

A rather delicate form for the Alpine house.

The seeds of *Lithospermum* germinate best in heat.

LYCHNIS LAGASCÆ (3 in.). Rose.

Plant in sandy soil and in half shade. Increase by seeds.

— PYRENAICA (3-4 in.). Pale rose.

Plant south in a niche in lime and loam between limestones. Increase from seeds.

— VISCARIA (12-14 in.). Various colours.

Increase by seeds or division of the tufts.

MAIANTHEMUM BIFOLIUM (or CONVALLARIA)

(4-8 in.). White.

Plant in half shade in sandy loam. Increase by dividing the root-stocks.

MALVASTRUM MUNROANUM (6-8 in.). Scarlet.

Plant south on a slope in moderate soil. Take cuttings each year.

MAZUS PUMILIO ($1-1\frac{1}{2}$ in.). Violet.

— RUGOSUS (1-2 in.). Violet.

Plant south-east or south-west on a slope in loam and grit. Increase by seed or by division of the tufts.

MECONOPSIS INTEGRIFOLIA (12-18 in.).

Yellow.

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MECONOPSIS WALLICHII (3-5 ft.). Blue.

Plant both these poppies in half shade and in a damp place in loam, peat and grit. Shelter from the east wind, and water in the summer.

Seed should be sown every year. *Integrifolia* does best in the Alpine house.

MENTHA REQUIENII (2-4 in.). Purple.

Plant south in good soil and use as a carpet. Propagate by dividing the shoots. If difficult, try in a pot in the Alpine house.

MERTENSIA SIBIRICA (6-8 in.). Purple-blue.

— **VIRGINICA** (6-8 in.). Purple-blue.

Plant south-east in half shade in loam, leaf-mould and sand in a dampish place. Increase by division.

MORISIA HYPOGÆA (2-3 in.). Yellow.

Plant south in a well-drained place in leaf-mould and loam. Top-dress well in autumn. It does better in the Alpine house. Increase by seed or division.

MUHLENBECKIA NANA (1-3 in.). Pinkish.

Plant in sandy loam for covering a rock. Propagate by cuttings.

MYOSOTIS RUPICOLA (2-3 in.). Bright blue.

Plant south in loam, lime and grit, or in the moraine wedged between large stones—preferably limestones. Protect from winter rains. Sow frequently.

— **RUTH FISCHER** (3-4 in.). Blue.

Plant south or south-east in loam and lime. Increase by seed.

NARCISSUS CYCLAMINEUS (6-8 in.). Lemon.

— **TRIANDRUS ALBUS** (6-7 in.). Pale yellow or white.

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Plant both these south in loam, and increase by seed or by separation.

NEPETA MUSSINI (12-18 in.). Pale blue.

Plant in ordinary soil, but not in a choice place.

Increase by division.

NERTERA DEPRESSA (6-12 in.). Green.

Plant north in light loam and leaf-mould, and water well in summer. Propagate by dividing the tufts or from seed. An interesting little plant, but best in the Alpine house.

NIEREMBERGIA FRUTESCENS. (12-18 in.).

Blue and white.

Plant south in loam. Cut back in April, and increase by seed.

— **RIVULARIS** (1-3 in.). White.

Plant south in good sandy loam and top-dress well. It does best in a dampish place.

CENOTHERA MACROCARPA (12-18 in.). Yellow.

Plant south-east at the back of a rock in loam and lime. Increase by seed or by cuttings.

OLEARIA GUNNI (1½-3 ft.). White.

An attractive shrub for the back. It should be cut back after flowering.

OMPHALODES LUCILIÆ (4-6 in.). Lilac-blue.

Plant south in sandy soil. Increase by seeds or division. Protect from rain in the winter.

— **VERNA** (1½-2 in.). Blue.

Plant high between stones where it may have its way. Increase by cuttings.

ONONIS ROTUNDIFOLIA (1-1½ ft.). Rose.

A shrubby plant for the middle distance.

ONOSMA TAURICUM (6-12 in.). Yellow.

Plant south behind a rock in loam and lime. Protect from winter rain, and propagate by layering like carnations, or by seed.

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ORCHIS FOLIOSA ($1\frac{1}{2}$ – $2\frac{1}{2}$ ft.). Purple.

Plant in half shade in loam and lime. Increase by seeds.

OURISIA COCCINEA (6–12 in.). Scarlet.

Plant in half shade between stones in loam, peat and lime. Increase by seeds or division.

OXALIS ADENOPHYLLA (3–4 in.). Pink.

A lovely form. Treat as *Enneaphylla*.

— **ENNEAPHYLLA** (also *E. ROSEA*) (3–4 in.). White.

Plant south or south-east in loam, leaf-mould, and grit. Increase by division of bulbs. A beautiful little plant.

— **FLORIBUNDA** (9–12 in.). Rose.

Plant on a slope between stones with plenty of room. Take offsets.

— **LOBATA** (3–5 in.). Yellow.

As *Enneaphylla*, but perhaps best in the Alpine house.

PAPAVER ALPINUM (2–4 in.). Various colours.

Plant or sow in sandy loam. There should be masses of these.

PARNASSIA (1–3 in.). White.

Plant in half shade in a damp place in loam and leaf-mould. It wants constant renewing by division or seed.

PELARGONIUM ENDLICHERIANUM (1–2 ft.).

Rose.

Plant south in sandy loam, and propagate by cuttings.

PENSTEMON CÆRULEUS (10–15 in.). Lavender.

— **GLABER ROSEUS** (6–20 in.). Rose.

— **HETEROPHYLLUS** (18 in.). Pink or rose.

— **MENZIESI** (12 in.). Purple.

— **PUBESCENS** (1–2 ft.). Bluish-violet.

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PENSTEMON SCOULERI (1-2 ft.).

Plant these south in loam, leaf-mould and grit.
Cut away old foliage in spring. Increase by seeds or cuttings.

PHILESIA BUXIFOLIA (2-3 ft.). Rose.

A small shrub. Plant in half shade in a moderately damp place in peat, loam and sand. If it grows freely, peg down the shoots.

PHLOMIS FRUTICOSA (2 ft.). Yellow.

An effective plant for the back. Increase by cuttings or seeds.

PHLOX AMCENA (6-15 in.). Pink.

— **DIVARICATA** (or *Canadensis*) (9-16 in.). Lilac.

— **DOUGLASII** (6-12 in.).

— **OVATA** (12 in.). Reddish.

— **STELLARIA** (18 in.). Soft blue.

— **SUBULATA** (6-12 in.). Pink or white.

— — **The Bride**. White with pink eye.

— — **Daisy Hill**. Rose and red centre.

— — **G. F. Wilson**. Mauve.

— — **Nelsoni**. White.

— — **Nivalis**. White.

— — **Vivid**. Rose and red centre.

Nearly all the phloxes should be planted in sand and loam on a slope where they may hang down over stones. Cut back when they get too lank. Increase by cuttings or from seed.

PICEA PUMILA (1-2½ ft.).

A dwarf shrub.

PINGUICULA GRANDIFLORA (3-6 in.). Violet.

— **REUTERI** (3-5 in.). Pink and white.

Plant in half shade in a moist spot in rich loam. They are difficult to grow. Propagate by dividing the crowns in spring or from seed.

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PLUMBAGO LARPENTÆ (1-2 ft.) Blue or violet.

Plant full south in sandy loam, and propagate by division in spring or from seed or from cuttings.

PODOPHYLLUM EMODI (6-12 in.). White.

Plant in half shade in good soil. Increase by seed or by division of the roots.

POLEMONIUM HUMILE (6 in.). Blue.

Plant south-west in loam, leaf-mould and sand. Divide every other year.

POLYGALA CHAMÆBUXUS (also **PURPUREA**) (6 in.). Creamy yellow.

Plant south-east on a slope in loam, peat and sand. Increase by seeds or cuttings.

POLYGONUM AFFINE (6-8 in.). Rose.

— **VACCINEFOLIUM** (9-12 in.). Pink.

Plant high up on a slope. Divide the roots.

POTENTILLA CLUSIANA (2-3 in.). White.

Plant as *Pyrenaica*.

— **FRUTICOSA** (1 ft.). Yellow.

Plant south or south-east in good soil. It likes moisture. Propagate by cuttings in spring or from seeds.

— **NITIDA** (3-6 in.). White or pink.

— **PYRENAICA** (6-15 in.). Yellow.

Plant these south in loam, leaf-mould and grit, or in the moraine. Top-dress carefully. Increase by division of the root-stocks.

PRATIA ANGULATA (1 in.). White.

Plant south or south-east on a slope in light soil. Increase by division of the tufts or by seeds.

PRIMULA AURICULA MARGINATA (2-3 in.). Yellow.

Plant on a slope in loam and clay wedged between stones.

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PRIMULA BEESIANA (3-6 in.). Purple.

— BULLEYANA (3-6 in.). Orange.

— CAPITATA (6-9 in.). Violet-purple.

— CLUSIANA (6-9 in.). Rose.

— COCKBURNIANA (6-9 in.). Dark red.

— DENTICULATA (8-12 in.). Lilac.

There is also a white form—Alba.

— FARINOSA (3-10 in.). Lilac.

— FRONDOSA (3-8 in.). Lilac.

— GLAUDESCENS (3-8 in.). Magenta-rose.

Plant among stones.

— GLUTINOSA (4 in.). Bluish-purple.

— HELODOXA (2½-4 ft.). Yellow.

A fine thing, and must be in damp place.

— INTERMEDIA (6 in.).

— INVOLUCRATA (8-12 in.). White.

No lime.

— IPSWICH HYBRID (8-12 in.). Orange or scarlet.

— JAPONICA (18-20 in.). Crimson.

— JULIÆ (3-5 in.). Reddish purple.

— LISSADELL (8-10 in.). Red.

— LITTONIANA (14-18 in.). Lilac or purple.

— PULVERULENTA (18-20 in.). Rich dark crimson.

— ROSEA (2-3 in.). Rose.

— SIKKIMENSIS (1½-2 ft.). Yellow.

Plant above three in half shade in a boggy place in loam, leaf-mould and grit.

— SPECTABILIS (10-12 in.). Rose.

— VEITCHII (10-15 in.). Rose.

Plant in half shade in loam.

— WINTERI (8-12 in.). Mauve.

All primulas like damp, and many do well in the moraine. Some, like Juliæ, Helodoxa, Sikkimensis, Japonica, Pulverulenta, Rosea and

Involucrata, are happy in a boggy place. Nearly all the above should be planted in half shade in loam and grit and (except *Involucrata*) with a little lime. Increase by seeds or by division of the tufts.

PROPHET'S FLOWER. *See* *Arnebia*.

PRUNELLA GRANDIFLORA (6 in.). Violet.

Plant in half shade in ordinary soil. Propagate by division in autumn.

PULMONARIA RUBRA (12-18 in.). Red.

Plant south-west on a slope in leaf-mould and loam. Increase by division.

PYROLA ROTUNDIFOLIA (6 in.). White.

Plant in the shade in loam, leaf-mould and peat. Increase by seeds.

RAMONDIA NATHALIÆ (3-7 in.). Lilac.

Treat as below, but add no lime.

— **PYRENAICA** (4-8 in.). Lilac.

Plant north between stones on a sloping bank in peat, loam and lime. The plants should be pressed vertically against the soil, and watered in hot weather. Increase by seeds (a slow process) or by dividing the tufts. There is a white form.

RANUNCULUS AMPLEXICAULIS * (3-10 in.). White.

— **GRAMINEUS** (6-10 in.). Yellow.

— **PARNASSIFOLIUS** (3-6 in.). White.

Plant these in half shade in a damp place in loam and leaf-mould. Increase by division, off-sets or seeds.

RETINOSPORA NANA (1½-2½ ft.).

A dwarf shrub.

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RHODODENDRON CHAMÆCISTUS (12-18 in.).
Rose.

Plant in half shade in peat and sand. Among Alpine rhododendrons the best are: *Ferrugineum*, *Hirsutum*, *Præcox*, *Ciliatum*, *Racemosum*.

RIBES PUMILUM (12-15 in.).

A dwarf shrub. Propagate by cuttings in autumn.

ROSA ALPINA (6-18 in.).

— **POLYANTHA NANA** (10-24 in.).

Plant in full sun.

ROSMARINUS PROSTRATUS (4-6 in.). Blue.

Plant on a slope. Propagate by cuttings.

RUBUS ARCTICUS (6 in.). Rose.

Plant south in sandy loam. Increase by suckers or division.

SANTOLINA SQUARROSA (12-18 in.). Yellow.

Plant in a mass on a slope in ordinary soil.

Propagate by division or by cuttings.

SAPONARIA CÆSPITOSA (3-6 in.). Rose.

— **OCYMOIDES SPLENDENS** (6-12 in.). Deep rose.

Plant these south between stones in loam and grit. Increase by seeds in September. *Cæspitosa* is a compact plant; *ocymoides* is a trailer.

SAXIFRAGA¹ : (I) Encrusted. (II) Mossy. (III) Cushion.

¹ This genus contains over 150 species, and in a small book it is impossible to describe the various sections in which the best Saxifrages are placed. The three divisions given here are therefore approximately and not scientifically correct.

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I. ENCRUSTED (Rosetted).

SAXIFRAGA AIZOON BALCANA (5-10 in.). Pink-spotted.

- — **LUTEA** (8-12 in.). Yellow.
- — **PECTINATA** (5-10 in.). White.
- — **ROSEA** (4-8 in.). Rose.
- — **ROSULARIS** (9-12 in.). Rose.
- **CARINTHIACA**. (4-6 in.). White.
- **COCHLEARIS** (1-1½ ft.). White.
- **COTYLEDON PYRAMIDALIS** (1-2 ft.). White.
- **CRIESBACHII** (4-5 in.). Scarlet.
- **HOSTII** (12 in.). White.
- **LINGULATA LANTOSCANA** (12-18 in.). White.
- **LONGIFOLIA** (1-2 ft.). White.
- **MACNABIANA** (4-7 in.). White, speckled rose.

All these require similar treatment. They should be planted south or south-east on a slight slope in limestone grit and loam tightly wedged between stones (limestones for choice). Increase by division.

II. MOSSY.

SAXIFRAGA BATHONIENSIS (5-6 in.). Red.

- **GRANULATA** (6-12 in.). White.
- **GUILDFORD SEEDLING** (2-4 in.). Rose.
- [— **OPPOSITIFOLIA** (6-8 in.). Rose.]¹

[Place north. Splendeus is the best variety.]

- **RHEI SUPERBA** (2-5 in.). Rose.
- **STANSFIELDII** (3-8 in.). White.
- **WALLACEI** (3-8 in.). White.

These should be planted in half shade south-west or south-east in loam, sand and grit. They usually decay in the centre, and when this

Perhaps hardly belongs to this section.

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begins take up the whole plant and replant the sound portions in another part of the rock-garden. Increase by seed or by division.

III. CUSHION (Kabschia).

SAXIFRAGA APICULATA (and ALBA) (3-6 in.).

Primrose.

- BOYDII (3-5 in.). Primrose.
- BURSERIANA (2-3 in.). White.
- FALDONSIDE (4-6 in.). Yellow.
- LILACINA (2-4 in.). Lilac.
- PAULINÆ (3-6 in.). Yellow.
- SALOMONI (3-5 in.). White.
- SANCTA (2-3 in.). Yellow.

These should be planted in half shade between stones in loam and lime grit. They should be protected from excessive winter rains, but should be kept moist in summer. Increase by division or from seeds.

SCABIOSA CAUCASICA (1-3 ft.). Blue.

- PARNASSIFOLIA (1-2 ft.).

Plant south or south-east in sandy loam. Increase from seeds.

SCHIZOCODON SOLDANELLOIDES (2-3 in.).

Rose.

A lovely but difficult plant which should be grown in peat and sand in the sun and sheltered from the wind. Divide the tufts. It should be grown in a cold or Alpine house.

SCHIZOSTYLIS COCCINEA ($1\frac{1}{2}$ - $2\frac{1}{2}$ ft.). Scarlet.

Plant south in loam, leaf-mould and grit against a rock. Increase by division.

SEDUM ANGLICUM. Whitish.

- CÆRULEUM. Blue.

Plant south. This is an annual.

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SEDUM CORSICUM. White.

— **KAMSCHATICUM.** Yellow.

— **PILOSUM.** Salmon-rose.

Practically an annual.

— **PULCHELLUM.** Rose.

— **REFLEXUM.** Yellow.

— **SEMPERVIVUM.** Scarlet.

— **SIEBOLDI.** Pink.

— **SPATHULIFOLIUM PURPUREUM.** Yellow.

— **TENELLUM.** White.

These are all low-growing, and should be planted south in loam and grit. They do well in rock crevices. Increase by seeds, cuttings or division.

SEMPERVIVUM ARACHNOIDEUM (3-4 in.). Red.

Plant on the rock in moist clay. Increase by seed or division.

SHORTIA GALACIFOLIA (2-3 in.). White.

— **UNIFLORA GRANDIFLORA** (1½-2 in.). White to rose.

Plant in half shade in good sandy loam and leaf-mould. Increase by seed or division.

SILENE ACAULIS (2-3 in.). Pink.

— — **ALBA.**

This is better than the type.

— **ALPESTRIS** (6 in.). White.

— **PUMILIO** (2-3 in.). Rose.

— **SCHAFTA** (6 in.). Purple.

Plant these south, tightly packed between stones in loam, sand and leaf-mould. Increase by seeds, cuttings or division.

SOLDANELLA ALPINA (2-4 in.). Violet.

— **MONTANA** (2-4 in.). Violet.

Better than above.

Plant in half shade in a dampish place in loam and grit. Top-dress well two or three times a year. Increase by seed or division.

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SPIRÆA DECUMBENS (1-3 ft.).

— **SIMPLICIFOLIA** (1-3 ft.).

Two charming dwarf shrubs.

STACHYS CORSICA (1-2 in.). Violet.

Plant in ordinary soil, and propagate by dividing the crowns in autumn.

STATICE LATIFOLIA (12 in.). Blue.

Plant in ordinary soil, and propagate by division or root-cuttings or seed in the spring.

SYNTHIRIS RENIFORMIS (3-6 in.). Violet-blue.

Plant in half shade in loam, peat and a little lime. Increase by seed or division.

THALICTRUM ANEMONOIDES (6-12 in.).

White.

Plant in deep moist sand and peat in half shade. Propagate from seed.

THUJA NANA (15-24 in.).

A dwarf shrub.

THYMUS AZORICUS (3-4 in.). Rose or purple.

Plant south in ordinary soil. Cut back when too strong. Increase by division or cuttings.

— **SERPYPHILLUS COCCINEUS** (1½-2½ in.). Rose.

TIARELLA CORDIFOLIA (4-7 in.). White.

Plant south-west in ordinary soil. Propagate by dividing the roots.

TRILLIUM GRANDIFLORUM (12-18 in.). White.

— **RUBRUM** (8-15 in.). Red.

Plant in half shade in a damp place in loam and leaf-mould. Divide the root-stocks.

TRITOMA RUFA (12-18 in.).

Plant in good loam, and propagate by division of the roots or from the suckers in spring or from seed.

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TROLLIUS ASIATICUS (12-18 in.). Dark yellow.

— **ORANGE GLOBE** (12-18 in.). Yellow.

— **PUMILUS** (6-12 in.). Yellow.

Plant in moist or boggy soil, and propagate by division in autumn.

TROPÆOLUM POLYPHYLLUM (1-2 ft.). Yellow.

This is a trailer. Plant in loam and sand.

Increase from the young bulbs.

TULIPA PULCHELLA (3-8 in.). Lilac.

Plant south in sandy loam. Increase by off-sets or seeds.

TUNICA SAXIFRAGA (2-3 in.). Rose.

Plant south or south-east in ordinary soil.

Increase by division.

UVULARIA GRANDIFLORA (1-2 ft.). Yellow.

Plant in half shade in sand and peat. Increase

by dividing the roots or by seed.

VANCOUVERIA HEXANDRA (12-18 in.). Light rose.

Plant in half shade in loam and peat. Increase by division or by seeds.

VERBENA VENOSA (12-18 in.). Blue-violet.

Plant south or south-east in good soil, and propagate by cuttings in spring.

VERONICA BIDWILLI (3-6 in.). Lilac.

Plant south between stones in loam.

— **PECTINATA** (8-12 in.). Rose.

— **REPENS** (8-12 in.). Blue.

— **SALICORNOIDES**. (3-6 in.). Gold foliage.

— **SAXATILIS** (6-8 in.). Blue.

Plant these south or south-east in sandy loam, and top-dress well in the autumn with the same. The creeping kinds will then root freely and widely. Increase by cuttings or division.

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VIOLA CALCARATA (3-4 in.). Blue or white.

— **CORNUTA** (3-4 in.). Pale blue.

— — **PAPILIO** (3-4 in.). Pale violet.

— **GRACILIS** (3-4 in.). Purple.

These *Violas* should be planted south in poor sandy loam.

— **PEDATA** (1½-2 in.). Blue.

This wants careful treatment, and is often only an annual. Plant in loam and leaf-mould in damp soil. Increase all *Violas* by seeds or cuttings.

WAHLENBERGIA (EDRAIANTHUS) DALMATICA (2-3 in.). Blue.

— **PUMILIO** (2-3 in.). Lilac.

— **SERPYLLIFOLIA** (2 in.). Blue.

Plant these south or south-east between rocks in loam, grit and sand. They will also do well in the moraine. Increase by seed.

YUCCA GLORIOSA (4-5 ft.). White.

A fine plant for the back, which should be planted in good loam with no lime. Propagate by dividing the tufts at the base in spring or by detaching the buds which are made underground.

ZAUSCHNERIA CALIFORNICA (12 in.). Scarlet.

Plant full south in sandy loam. Increase by seeds or division of roots.

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