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tion shaded from the noonday sun will

hold the foliage in good color. Climbing nasturtiums are always ac-ceptable. Sow the seed out-of-doors soon after the middle of May. Earlier results may be had by starting the seeds indoors or in a hotbed in April and transplanting to the open when the plants are large enough.

Scarlet runner and hyacinth beans are very useful annual climbers. Sow the seed late in May. Make a trench for them as recommended for sweet

Although a perennial, Cobea scandens succeeds well when grown from seed as an annual. The seed must be started indoors or in a hotbed early in April. Plant outdoors about the second week in June. The plants prefer a light, rich soil. The flowers are cup and saucer shaped, and greenish purple.

Gourds are excellent annual climbers. They produce blossoms profusely, and the curious fruits hanging in clusters add novelty and attractiveness to the garden. They are grown somewhat in the same manner as squashes and cucumbers. A better way is to start the seed in the house in April and transfer the plants to the open when the right time comes. Good results may be obtained, however, by planting the seeds outside. Give them a location that is fully exposed to the sun.

Gourds must be trained on some support, such as fences, trellises, arbors and summer houses. A rustic effect may be produced by allowing the gourds to run over a dead tree. Go to the woods or fields and find a small tree or old top. Nail on this in irregular fashion any old sticks or limbs that are available. Unless you intend to give the larger varieties particular attention in the way of support when they attain their size, it is advisable to use the smaller sorts so that they will not be damaged in case of a wind storm.

The only real way to control insects and fungous diseases in the garden and on fruit trees is by means of The solutions can be prespraying. pared at home or they can be purchased in commercial form.

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Be sure and have a strawberry bed, if only one row twelve feet long. Fresh berries from one's own garden are a luxury. Providing that a good variety is grown, they excel those sold at stores.

Good Perennials

By M. E. BLACKLOCK

Continued from last month

The Garden Heliotrope (Valeriana officinalis).—The tall stalks of this plant, crowned with minute white flowplant, crowned with minute white hourers and redolent of cherry pie, are fa-miliar to every old gardener. Many people love it still, though it has not any great claim to beauty, but it is sweet, and a little clump of it, with many of us, stirs old memories. There many of us, stirs old memories. There is a yellow-leaved form of it, Valeriana phu aurea, which is very attractive when its golden leaves come up in early spring, contrasting prettily with the brown earth. This variety appears to be as hardy and easy to manage as the other. Cats love valeriana, and will lick the earth round it until it has quite

a polished surface, before it comes up. The Scarlet Lychnis (Lychnis chalce-donica).—The "Jerusalem Cross," as this is sometimes called, is, perhaps, as brilliant a scarlet as there is to be found in herbaceous plants. It is a little coarse and weedy in growth, but for a large garden it is not to be despised, as it blooms from June to August, and even later, if not allowed to seed, and its tall scarlet-crowned branches are ver showy. It is long-suffering, and will thrive anywhere and for anyone. There is a handsome double form of it, of comparatively dwarf growth, but it is difficult to get true to name, and not nearly as robust, but it is well worth growing.

Bachelor's Button (Ranunculus acris, fl. pl.).—The double buttercup still has charms for most people—the flowers are plentiful, so pure a yellow and double, with the elusive fragrance of its wild progenitor, that we give it a place in both our hearts and our gardens. If it is to do its prettiest it must be given a rich, moist soil. The flowers will then be much larger than they usually grow, and there will probably be a second crop towards the fall. It is increased by division, is perfectly hardy,

and very easily grown. Jacob's Ladder (*Polemonium caeru-leum*).—The leaves alone of the Ja-cob's Ladder are ornamental, and the blue flowers with their prominent yellow blue flowers with their prominent yellow stamens are decidedly pretty. The white-flowered form of it (*P. c. alba*) is also very attractive, but by far the prettiest of the genus is *.Polemonium reptans*, which is a really charming spring flow-er, coming in May or early June, when its slaty-blue pendant blossoms are most welcome additions to the garden. Any

of these Polemoniums are easily grown from seed, and are adjustable to any soil or location.

The Scarlet Bergamot or Oswego Tea (Monarda didyma).—No modern hardy garden can afford to do without this dear old sweet-leaved plant, or at least the new form of it, catalogued as Monarda didyma, var. "Cambridge Scar-let," which is truly a royal flower. Bergamot is not pleasant as a cheap perfume-as it used to be used quite fre quently years ago-but the delicate fragrance of its leaves and stems, as one brushes against them in the garden, is deliciously sweet and refreshing. The flowers of the Cambridge Scarlet vari-ety are much larger than those of the type, and rise tier upon tier into very handsome spikes; the color, also, is a little more brilliant. Bergamots are inclined to spread, but not to any injuri-ous extent, as the offshoots root from the surface of the ground downwards, and are easily uprooted. Cultivation is simple.

Common Monkshood or Wolfbane (Aconitum napellus).—The rich blue flowers of this old-time favorite with their peculiar helmet-shaped cowl, are very handsome, and the deeply-cut very handsome, and the deeply-cut leaves quite attractive. Considering the very poisonous nature of the roots, and possibly of the leaves also, it is strange hat it was so frequently grown where little children could get at it-they are so fond of putting everything they see into their mouths-and yet we have had no tragic tales handed down to us of disaster, from its presence in the gar-dens of our forefathers, nor do we hear of any from the modern use of and of the very beautiful new varieties now grown—so, perhaps, children instinctively leave it alone. To those who are not afraid of this dangerous trait the following trait, the following varieties can be very highly recommended: A. autum-nale var. Fisheri, has leaves as bright nale var. Fisheri, has leaves as bright as if varnished, and has flowers of an exquisitely soft blue, in October; it is particularly welcome, as it comes when few flowers are left. A. Wilsoni is a handsome new species from China; it blooms in September, and is a specially fine variety, with large blue flowers. A. *napellus tricolor* has pretty blue and white flowers in summer. A volubile white flowers in summer. A volubile (the climbing monkshood), has glistening dark green leaves and soft violet blue flowers; it blooms in August and September; this plant has a peculiar twining growth, and will reach a height of eight to ten feet. Monkshoods will thrive in any good rich soil, and require no special care. They are perfectly hardy.



By PROF. W. SAXBY BLAIR

CANADIAN HOME JOURNAL

HEN we speak of dwarf fruit trees we mean any variety of orchard fruits which does not reach

full size; they do not for some reason reach the normal size of the variety under average climatic conditions. A tree may be dwarfed by top or root pruning, thus preventing it from at-taining normal size, or through check-ing its growth by some mechanical in-jury preventing free passage of sap from root to stem, or by propagating on dwarfing stock dwarfing stock.

The dwarf trees purchased from nurserymen are the result of the lattergrafting or budding on a closely related species which naturally make slow growth, and are dwarf in habit. Trees which show weak growth in stem and branches have a correspondingly weak root growth, and this slow root action accounts for the dwarfing. In other words, only so much nutritive material can be supplied the top by the root, and a dwarfing or lessening of normal growth must result.

Dwarfing may result in a measure from a poor mechanical union between stock and bud, or scion. Propagating fruit trees by grafting is done by cutting off the plant we graft into, which we call the stock, just above the first root, and into this the variety we wish to propagate, made up of a short branch containing two to four buds called a scion, is inserted. The part above this union will always be similar to the variety we have taken the scion from, and the root will always he the scim and the root will always be the same and the root will always be the same as the original tree from which it was developed; that is, there is no mingling of the characteristics of the stock or scion, the union is simply a mechanical one. In budding only one bud is in-serted, rather than a branch with sev-eral buds. The union between stock and scion is much better with some varieties scion is much better with some varieties than others, and a poor union, while tending to still further dwarf, may result in a short-lived tree. To dwarf apple trees, the paradise

apple, a dwarf-growing variety, obtain-ed principally in France, is used. Dwarf pear trees are obtained by

Dwarf pear trees are obtained by propagating principally on Angers quince roots, obtained also in France. The peach is dwarfed by budding it on the Myrobalan plum. The American plum is also used. The plum is dwarfed by propagating on the sand cherry, various forms of which are found distributed throughout the northern states from Maine to Colorado. The Prunus Besseyi is the best for this purpose. These dwarf trees may be branched close to the ground, or the top formed with a trunk two or three feet tall. In order to keep dwarf trees to the desired form, some annual pruning to shorten the growth and remove super-fluous branches will be necessary. The great advantage of the dwarf-growing trees over standard varieties is that they occupy less space and will

growing trees over standard varieties is that they occupy less space, and will come into fruiting early, usually after the first or second year from planting. This makes them desirable for suburb-an planting where fruit is wonted at an planting where fruit is wanted at once, without having to wait several years. The trees may be set from six years. The trees may be set from six to eight feet apart, and thus 20 to 25 trees may be set where only one stand-ard could be planted to advantage.

It is necessary to adopt a system of cultivation similar to that given stand-ard trees if best results are to be ob-tained. The soil about the trees should be cultivated in the early spring as soon as the ground is dry enough to work and kept loose and friable to a depth of two or three inches by frequent working until the first of July, when further cultivation should cease. This treatment supplies best conditions for growth in the normal season, and proper ripening of the wood, which is very important, in order to prevent winter injury.

ertilizers should be applied in the early spring. Annual manuring heavier than five pounds per square yard of well-rotted manure is not advisable. If complete fertilizers are used two to three ounces per square yard will prove ample.

Dwarf trees, like the standards, re-quire a properly drained soil. If the soil suffers from excessive moisture, drainage should be provided.

Any variety we may wish can be dwarfed by propagating on dwarf roots. The list offered by the majority of nurserymen, however, is not large, for, owing to the demand being limited, a large stock is not carried by them.

