NCIAL PENINGS

idential building is extremely ac- t Creston.

railway is not expected to reach George before 1912 or 1913 at st.

igorous campaign has been inaug- d by the license commissioners at ouver for better class hotels.

son has been made a district pas- r agency by the C. P. R., with Wells in charge.

C. P. R. will this season expend ,000 in improving the road be- Field and Rogers Pass.

iness in South Kootenay is re- d dull, this being the only section e province so complaining.

elstoke is looking forward to the on of a $100,000 hotel in the busi- section of the city.

vy shipments of trees are being ed in the Okanagan and planting progress everywhere.

ticton is making a strong bid for f the Government's demonstra- rchards.

Board of Trade has been organ- t Quesnel with A. W. Cameron esident; S. L. Hilburn, vice- ent, and T. M. Hill, secretary.

Prince Rupert waterworks sys- as been taken over by the city, will continue extensive improve-

C. P. R. is expected to start in t this year to complete the Ar- ad and Kootenay railway to con- the main line at Revelstoke with rows Nest road via the Lardeau.

late George Robertson of Revel- was on Wednesday last accorded military funeral. He had been minent and useful member of "F" any, R. M. R.

n B. Gehring is held by the po- t Vancouver as a sequel to an at- at suicide with chloroform. No for the attempt at self-murder igned.

d Nixon has been engaged as ntant and assistant water com- ner of Summerland, at $85 per , and W. B. Fison as municipal, tion and road commissioner, at er month.

nle has decided to raise $10,000 treet improvements, $7,000 for s, $6,000 for electric light exten- $1,900 for water extensions, for surface drainage, and $41,- r sewers.

nty Judge Howay has refused to an application for bail for the er S. H. Ford, charged with ding with intent another Pitt farmer, in consequence of Ford sent a letter to the court per- y, concerning his case.

D. Boucher, contractor and r of Vancouver, who has just ed from a trip to Nicaragua and na, states that he was mistaken spy at Managua, the soldiers in rain made rifle practice through arriage windows; they were go- the front and seemed to be in fighting spirit.

whaler, Orion reached Sechart day with Mike Clootetil, a West trapper, who had been picked up g to an upturned boat, to which d managed to hold fast during terrible hours. His partner, Hansen, had dropped off and per-

ager Barnes of the Horticultural s at Walhachin (Penney's) has ed a gasoline traction plow for ng up the large acreage shortly brought under water, and says ow is an unqualified success. The ne uses about 30 gallons of gas- daily, plows 12 furrows at a time, an cover seventeen acres per diem.

t George's hustling citizens be- in taking time by the forelock. have elected a school board con- g of W. F. Cobke, chairman; J. r Buckle, secretary; C. W. s, J. Cowle, and W. D. Kennedy, ave applied to the Government for ool and a teacher. Providence is d to provide the children.

er a struggle for twenty years nion conditions in the painting rtment of the Hudson River sportation Company, the Brother- of Painters, with the assistance e Marine Trades Council of the of New York, has at last been sful. Delegate Benjamin Green, senting the Marine Painters, and ll board of Marine Trades Coun- aited on the officials of the com- and, after stating their griev- and informing them that if con- s were not remedied all trades t be ordered to quit, the officials ed to the demands of the paint- lischarged sixty-five men and re- d them with union painters.

about two days they will all be They have no union, and, there- have nothing to hold them toge- said an employer in Toronto week, referring to some girls his factory, who had gone out rike. This employer, whether tended it or not, was talking lism." He was telling all non- ists what the so-called regular agitator" has been telling them ears, that if they have no union, e not members of the union to they of right should be mem- they "have nothing to hold them er," and must, therefore, cringe ubmit to what they feel to be an ice, because single-handed they not the power nor the means to it. Incidentally, in this particu- ase, the girl strikers were, not ack in two days," but after stay- t for over a week the Cigarmak- nion came to their rescue, and ouble was amicably settled, the nce being removed and the girls back to work.

RURAL AND SUBURBAN

WHAT TO DO WITH LEGGY PLANTS

Often in the greenhouses of amateurs one finds plants of Dracaena and other families of the plant world which have, in the course of time, made long stems which are devoid of leaves, and the question frequently arises, What can we do with such specimens? In some cases these leggy plants, as they are usually termed, are of service, as, for example, when tall specimens are needed for the centre of a stage or group; but, generally speaking, those plants whose bottom leaves are close to the pot are the most serviceable.

Fortunately, the amateur with a greenhouse can make his or her leggy plants into compact specimens without much difficulty, and the accompanying illustrations of a Dracaena will, it is hoped, make the method of doing so plain to every beginner and amateur.

In Fig. 1 a Dracaena with a long, bare stem is shown. It will be noticed that the plant has a splendid head of leaves, and our object is to get the lower ones so that they nearly touch the pot. It should also be observed that there is a young plant growing up from the base of the old one, which will be referred to later. Turning to Fig. 2, we find there the same plant shown on a larger scale, and in its stem a cut, made in an upward direction just below the lowest leaves, is plainly shown. It should be carefully noted that this cut is made about half way through the stem in a sharply sloping direction and then carried upwards for about 1½ inches. To keep the cut open and thus form a tongue, a piece of a wooden match was inserted at the top of the wound and trimmed off level with the stem on each side. This cut is made with the object of inducing the plant to form roots from the tongue, just in the same way that a Carnation layer is induced to make roots.

Fig. 3 takes us another stage forward with the work. Here it will be seen a 2½-inch pot has been split lengthwise into half, and then bound tightly round the stem and held in position by three bamboo canes, which are thrust firmly into the soil of the pot shown in Fig. 1. It should be noticed that the stout string is bound outside the stakes, and treated thus the pot is made quite firm. After being fixed in position some pieces of broken pot are placed in the bottom of the pot, which is then filled to within half an inch of its rim with soil composed of rather rough fibrous loam two parts coarse peat one part, and coarse sand one part, about six pieces of charcoal about the size of Barcelona nuts being added at intervals as the work of filling proceeds. The soil should be tucked in firmly, but not made hard. Subsequently it must be kept moist, but not maintained in a sodden state, and the plant should be kept in the warmest part of the greenhouse. In the course of a month or two roots will be formed, and when it is seen that these are pushing their way through the bottom of the small pot the stem may be cut through with a sharp knife or small saw immediately beneath the pot, and the plant transferred to one of larger size.

Before proceeding further we will turn our attention to Fig. 4. Here we find the wound has been covered with a good sized mass of sweet sphagnum moss, this being tied firmly in position. If this is maintained in a moist condition and the plant kept in a warm temperature, roots will form in the moss, and when their white tips can be seen outside the ball, the stem may be cut through as advised above and the plant potted into a small but well-drained pot, using the same soil mixture as advised for filling the small pot. After this repotting the plant, whether rooted in moss or a pot, must be kept in a rather close and moist atmosphere for about a fortnight and very carefully watered in the meantime, after which it may be gradually given more air and will quickly become an established specimen with leaves close to the soil. The best time for doing this work is early in March, as at that time growth is very active; but where a temperature of 55 degrees can be maintained it may be carried out at once.

Some gardeners, instead of making a cut in the stem as shown in the illustration, remove a ring of bark, about an inch or rather more in length, from the stem just below the leaves, and fix a pot or moss around it precisely as indicated; but, generally speaking, roots are longer in forming than they are from a cut, and the method illustrated is the best for the beginner to adopt. After the top has been removed we must see what can be done with the old stem. We have already noticed that a young plant is growing from the base, and if the old plant is carefully turned out of its pot this offset may be easily cut off with a few roots and potted into a small, well-drained pot, using soil as already advised. In all probability we shall also find some roots on the old plants which have become very much thickened and which are termed by gardeners "toes.' These, too, may be removed, and if laid in some cocoanut fibre refuse in a warm spot in the greenhouse and kept moist they will soon form shoots and new roots, and may then be carefully potted up as young plants.

This still leaves us with the old plant, which may be treated in two ways, viz., returned to its pot and placed in a warm greenhouse, where it will, during the course of the summer, most likely produce a number of side shoots (especially if kept rather dry at the roots and the stems syringed daily), which may be taken off when large enough, made into cuttings and rooted, or the stem may be cut into pieces 2 inches long, and these laid in cocoanut fibre refuse in a close propagating-case where they can be kept moist. Under such conditions some of them will produce shoots and roots, when they can be transferred to small pots. If preferred, these pieces of stem may be split lengthwise and the cut surface laid on the fibre, some gardeners thinking that this induces roots and shoots to form more quickly. The beginner who wishes to investigate the matter might try some treated one way and some the other. It will be seen that from one old plant quite a number of new ones can be secured without very much trouble.

In addition to the Dracaena, several other plants, viz., Crotons, India-rubber plant (Ficus elastica) and Araucaria excelsa, may have their tops rooted in the same way, but a warm, moist atmosphere is essential. The old stems of all these will, after the top has been removed, produce side shoots, which may be used as cuttings, and the India-rubber plant may be cut up as advised for the Dracaena, if desired, taking care, however, to secure one joint or leaf-scar to each piece.—F. W., in The Garden.

ABOUT ROSES

By Donald McDonald, F. L. S.

There are now so many beautiful roses available for bedding purposes that when properly set out the effect produced should be extremely attractive. In all modern arrangements of roses it is satisfactory to note that the old "roseries," with their gaunt standard supports and clanking chains, are things of the past. Instead of being relegated to some obscure spot in the garden, roses are now a leading feature, but under improved methods of arrangement compared with those so long in vogue. We delight in the simple beds and borders of good soil, in which the roses should be massed or grouped together, according to

1.—A Dracaena plant which has become leggy; that is, the bare stem is too long.

kind, and color and thus will they give the best effect. Informal groups of the best kinds consisting of a dozen plants, more or less, of each sort, according to the amount of space at command, form the most attractive method of arranging roses. Nor is it quite necessary that these groups should fill the beds or borders, for, should there be an intervening space, so that each rose stands out in its fullest beauty, the space between the groups affords opportunities for the culture of many other choice hardy flowers for each season.

In gardens where there is plenty of room the different sections of the great rose family can be kept distinct. The tea rose, loving warmth and sun, and being so truly perpetual-blooming, may be given the best spot. In a less conspicuous position might be grouped in beds or borders all the showy hybrid perpetuals. Then there are the ever-blooming monthly roses, which may be placed together in beds near or even within the shrubbery. These are often grown in great wild masses as they need little pruning. This section of the rose family is rather neglected, and in the average garden it is uncommon to meet with any of the different kinds comprised in it. Even the florists' species of rose must not be forgotten. Many of these are as easily grown as the commonest shrub, and, being mostly single-flowered, the flowers are succeeded by hips of all shapes and of varying tints, and these, when ripe, together with brilliant-hued fading leaves, make the bushes as attractive in autumn as in the summer. An enterprising landowner at Purley, in laying out a portion of his estate for building purposes, has decorated one of the principal roads with beds of dwarf roses backed with climbers. The idea is an ingenius one, and likely to prove attractive when the houses in the grounds behind are completed. One already notices the various attempts of the owners of these "retreats" to make their rose border more beautiful than that of their neighbours. As the spirit of emulation is in the air, this "Rose Walk" will be an interesting crescent to visit when it becomes established.

Tieing and Training

There are few operations so badly carried out especially in small gardens, as those of staking and tieing. Stakes are, perhaps, scarce and often of unsuitable kinds. A stake may be anything from a mere twig to a good-sized sapling, from a slender wire to a sturdy bar of iron. All kinds of tall or climbing plants require support during growth, and stakes of some kind are always in demand about a garden. The modes of tying are almost as various as the stakes. These cover all the distance from a thread to a rope. Generally speaking, in almost all gardens the stakes, of whatever sort, are too bulky, and the ties are too coarse. Nothing can well be more unsightly than

2.—The same plant with a cut made in the stem to form a tongue. A ring of bark may be taken away instead, if preferred.

stakes like miniature gate-posts, and ties, whether of twine or matting, huge and prominent. Raffia grass is the best tieing material for soft-wooded plants, but this is mostly needed during the growing season; if properly used, and of reasonable strength it is at once neat and durable, without being conspicuous. It admits of being divided into strands of suitable strength, for the support of small and delicate plants, where huge untwisted ties would be out of place. It is difficult, indeed, to account for the prominence given to ties, except on the supposition that the tier wishes to proclaim to the world that the plants have been operated upon. Tarred twine is the best material to use for climbing roses, and it is often employed for trained fruit trees, but should always be loose.

Stakes and Supports

The above remark is equally true in regard to stakes or supports. These should always, if possible, be hidden, or at least the more plant and the less stake seen the better. Stakes, supports, trellises, all are needful at times, but art always tries to conceal them as much as possible. They are but the scaffolding, and should almost disappear as soon as the plant growth is reared and finished. Better see a small stake over-weighted, or a small trellis over-clothed, than larger ones half-covered throughout the season. And not only are there great incongruities in regard to staking and training, but in some gardens there is an excess of both. Nothing destroys art like stiffness. Lines of beauty ever bend and wind, and a straight line is apt to be inartistic. In such cases every plant is tied up straight, and the moment a leader or a side-shoot turns this way or that, or bends an inch down on either side, the tier is after it, to force it into starched propriety and unnatural straightness. An excess of staking, tying, and training may be made as destructive of artistic enjoyment as a complete lack of proper treatment.

Thinning Shrubs and Trees

When sunlight is eclipsed from spaces in front of dwellings closed up by trees and shrubs, one is inclined to come to the conclusion that there is something unpleasing to the eye beyond. One regret may sometimes be

3.—A small pot split in halves and then tied round the wound. This is filled with suitable soil.

felt, and that is when planting falls into the hands of the inexperienced and the trees which were intended to adorn the landscape as permanent specimens are, with all and sundry, allowed to form a jungle. Amateurs are sometimes possessed of vague ideas regarding thinning, and those who would do them justice are powerless in their desire to do what is right. Thinning may be taken in hand at once. Choose the trees or shrubs which are to be retained, and clear from them all growth which prevents their full development. In well-appointed plantations and shrubberies skilful hands should be employed, more or less adjusting and regulating choice trees and shrubs annually, and where specimens can have clear quarters and be allowed to develop their proportions, with a well-kept lawn surrounding them, they will always stand as natural pictures of beauty.

Renovating Lawns

It is always admitted, by novice and expert alike, that a well-kept lawn is a most ornamental adjunct to any residence, and the wonder is how some can cut up a fine greensward into formal beds without seeing the defacement they are creating. Lawns may be greatly improved by a mixture of six parts soft loamy soil, one part bone meal, and half a part soot well mixed and spread evenly over the grassy surface, to be washed into the roots of the grass during the winter rains. Grass-seeds should not be sown until the spring is again with us.

Storing Vegetables

It is one thing to grow a good crop of vegetables, but quite another to keep them safely through the winter. It is often the case that more vegetables are injured by heat in winter than by cold, through being crowded together in large quantities and then covered deeply to keep out the frost. It is quite necessary to keep potatoes, turnips, beets, and similar roots from freezing; still, they are of better quallty if kept as cold as possible, without being actually frozen. Turnips and beets are particularly liable to injury by heat, and become spoiled if a large quantity are packed together; and potatoes are often injured by being stored in large bins instead of being spread out in a dark cellar. When buried in the ground small heaps are best Parsnips and salsify roots

4.—Sphagnum moss bound firmly round the wound. If kept moist roots will soon permeate this moss.

are benefited by frost or are at least not injured by it; they may be dug up and placed in a trench and only slightly protected, just sufficient to admit of taking out what are wanted for use during the winter. If they are only required in spring, they may remain where grown. Onions will withstand far more cold than is usually supposed. If packed dry, in tight barrels and all interstices filled with chaff, they may be kept without injury in a shed where it freezes quite hard, provided the barrels are well closed. Onions stored in a warm cellar are very likely to sprout in winter, and then decay, emitting a disagreeable odor.

CONIFERS

Conifers are a group of plants of which the distinctness has been recognized from the earliest times. Virgil caled the cypress, and Catullus the pine, cone-bearing; popular observation instinctively anticipated the botanist. The peculiarity of their fructification, the "cone," unlike anything else known at the time amongst "flowering plants," afforded a sound if superficial basis for discrimination. Professor Huxley was fond of telling the story of his showing, when a young man, a fossil to the celebrated botanist Robert Brown, with the remark: "I suppose this is undoubtedly coniferous." Brown, after turning it over, would only commit himself to the cautious opinion, "It is at any rate conical." Modern botany had shown that amongst conifers external form is correlated with internal differences of structure which are profound.

Apart from this the mere habit of a conifer marks it out at a glance as distinct from the whole host of broad-leaved trees. Its presence in a landscape reveals itself unerringly as something almost alien and exclusive. We can now see the explanation in the fact that conifers are the survivors of a forest vegetation which once dominated before broad-leaved trees had even come into existence. They form, in fact, a branch of the great plant pedigree which has already largely died out, and is doomed, perhaps, to ultimate extinction. It would be difficult to describe the botanical evidence which would serve to establish this. But one fact is decisive and within common observation. Broad-leaved trees require for the most part the aid of insects for their fertilization. Conifers go back to a time in the world's history when this adjustment had not been brought about. They are wind-fertilized, and to ensure this, Nature, which never errs on the side of parsimony, produces pollen in enormous quantity. This sometimes accumulates on the ground, and is then described in the newspapers as a shower of sulphur.

Conifers, then, even if they had no other attraction, must claim our respect as a very ancient race, which had its culmination in the Mesozoic period. As might be expected, therefore, they have representatives in every part of the earth's surface. On the whole, they prefer a cool climate and are less frequent in the tropics. As they have come down to us they include subordinate groups of varying antiquity. "Araucaria, ' of which remains are found in our oolitic rocks, survives in fewer than a dozen species in the Southern Hemisphere. The South American "Monkey Puzzle" is the only one hardy in this country, and its archaic aspect is always in protest with its modern surroundings. It seems to want the companionship of an "Archaeopteryx." The Gingko of the Chinese, of which Punch discovered with great glee that the botanical name was "Salisburia," is perhaps the last surviving plant of the Mesozoic period, for judging from fossil remains it has reached us absolutely unmodified. It is singular that it has nowhere yet been found in a wild state. So far in the East it has only been met with in the temple areas of China, Japan, and Korea.

In the Southern Hemisphere conifers are represented only by the remnants of dying-out groups. In striking contrast to this in the Northern Hemisphere the "Abietineoe," which are almost wholly confined to it, have attained an enormous development since the beginning of the Tertiary period. Pines, spruces, silver firs, larches, and cedars form vast forests in the colder latitudes; further south they become restricted to mountain ranges. With a small rainfall, as in Siberia and the extreme north of the American continent, the growth is poor and ceases at the limit of tree vegetation; it attains its greatest luxuriance in the humid atmosphere of the Pacific coast. The coniferous forests of the Northern Hemisphere are rapidly being consumed, and we may lament that their destruction has been wasteful in the past; the civilization of the Northern races would not have been possible without it. The forest which once covered Central Europe disappeared before the imperious demands of a laborious agriculture, and an increasing population could not be housed at the present time without the cheap supply of American timber. In this and in other cases, such as coal, the world is living on its capital. The future will have to face the problem of finding some substitute for Nature's bounty. Unlike the timber of hot countries, that of conifers is peculiarly fitted for human needs. It is "soft" and therefore easily worked; impregnated with resin, it is fairly durable. It is an interesting speculation how a maritime commerce would ever have come into existence without its use. To Virgil pines merely suggested materials for ship-building; his "nautica pinus" finds an echo in Spenser's "sailing pine." In the eighteenth century a fleet of ships was built from Scots fir, two centuries old, from the Duke of Gordon's forest. Steel does its work now, and concrete will possibly replace it in building construction.

GROWING CAULIFLOWER PLANTS

To be successful in growing cauliflower plants, there are three essential things to be followed: 1. Proper soil, which should be of the very best obtainable—a loose, mellow soil made rich with fine rooted manure, one that will remain loose and keep moist; it cannot be too fine, for the finer the more rootlets the plants will have and the more soil will adhere to them when the plants are taken up. 2. The seed, which should be the best to be had. 3. Care in growing the plants.

If plants are required for early crop, seed should be sown by first of March in a greenhouse or properly made hotbed. The seed bed should not be too warm but of proper warmth to keep plants growing healthy. Plant the seed about one-half an inch deep, and not too thick, as thick planting makes plants too fine, and they are more apt to damp off. The bed requires plenty of fresh air on warm days to make stocky plants.

As soon as the plants are large enough, that is well out in second leaf, which should be in three weeks after sowing, transplant them into a new bed, which should be made a few days before needed.

If plants are wanted for extra early, it is better to pot them in fair sized pots, as by doing so you can plant in the field a larger plant, and not check growth. Great care must be taken to prevent any serious check; for plants are apt to have very small heads or "button up" as it is termed, if any serious check occurs in growth.

For late crop, seed is better sown in outdoor ground. Plant not too deep, in warmest and best soil you have. Thin out the plants while small to make good stocky plants. Watch for cabbage fly, and dust plants often.

Fowls will eat nearly everything, so there is no necessity of limiting them to one food.

Trying to force pullets to lay by giving them highly seasoned food is seldom satisfactory. They must be properly matured before producing eggs naturally.

Remember that an egg contains a living life-germ, therefore eggs intended for hatching should be gathered oftener than once a day during cold weather.