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FIG. 1717. GARDEN AT "GILES LYNN," TORONTO, AFTER A SNOW STORM.

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## BRIGHT GARDENS BENEATH BLEAK SKIES.

**G**ROUNDS cheerful and attractive amidst frost and snow, are desirable more especially for farmers and for the large class of city folk, who are away from home in summer. Farmers have too much work in spring and summer to allow them to take much interest on the garden; but the crops in, and the fall work done, they have more leisure to enjoy pleasant surroundings. The fashion of city people, of taking a long holiday in the warm weather, has been very detrimental to their grounds. Householders, especially those who have the most money to spend on their surroundings, are away the whole season, or else long enough to make it seem not worth while to devote much time, thought, or money to the garden. Why, in winter, when they are otherwise shut off pretty well from the beauties of nature, should they not have at their very doors landscape pictures surpassing wild scenery? We should try to have things about us at their best when we can most enjoy them. It was this principle that in England did much to make the bedding-out system, with all its faults, a sensible practice. The Easter sun throws its beams, let us fancy, across the terraces of some storied manor-house, and plays

over rich harmonies of color. Warm masses of tulips, daffodils and pansies, light up the beds so lately bleak and bare. And why? The family which has been away for the winter is at home, and have many guests. The holidays over, the house is deserted and the garden languishes till autumn, when it is again dressed with bright flowers to greet more visitors. The best effects were thus secured there at proper times; and with us there is no need that our grounds should be gaunt and bare in winter, while we have at our disposal a great wealth of evergreens boasting rich hues of green, gold and brown, silver and blue, and trees decked with clustering berries of scarlet, white, purple and orange. The poor man can make a nice garden from what he can find in the woods, whilst his better-off neighbor can get all sorts of beautiful things from nurseries.

We would have the garden attractive both in bleak days of late fall and in the winter's snows.

These cold-weather or winter gardens, as we might call them, are not so desirable for residents of our smaller towns and villages, who, as a rule, are at home in summer time to enjoy their grounds. Still, even they might have a

small part of their grounds set aside for winter effects.

We are not advocating an original idea, but one that has been from time to time urged in horticultural journals. Forty-eight years ago there appeared in Downing's Horticulturist a description of a garden planned for winter beauty, in which "there was not a leafless tree in sight."

screened. The background of the picture, the plantation bounding the view, will be composed of rich masses of green of varied shades, warmed here and there with a glow of scarlet, and, like the stained panes of some cathedral, intersected at intervals by gleaming shafts of white.

For our greenery, nothing, it seems to us, can for the main planting surpass the hemlocks



FIG. 1718. EVERGREENS AT "HOLLYDENE," TORONTO, DEC., 1899.

Some persons would rather arrange their grounds so as to make pictures attractive from the windows of the house, whilst others would design them with an eye to the effect from the walk, from the street or road to the door, or with a view to display to the passersby. If a nice, bright outlook is desired, select the window from which you wish to have your view. Other things being equal, take a window commanding the bleakest part of the lawn, or objects that are eyesores and should be

with their light and graceful foliage. A Scotch pine or two or a Norway spruce or other low priced hardy conifer should be disposed here and there to break the monotony of color. The hemlocks are rather more difficult than most evergreens to transplant, and especial pains should be taken to protect their roots from sun and wind till they are well and carefully set in the ground.

For the glimmer of scarlet to light up and cheer the scene there is the bitter-sweet (*Celas-*

trus scandens), the most useful climber for winter effects. This has clusters of orange seed pods which, as they mature, break open and disclose the scarlet fruit. The segments of the pods do not fall off but curl back so that the berry clusters present two pleasing colors side by side. It will make a growth of ten or twelve feet in a single season and takes forcible possession of any young sapling that comes

ogues, but Messrs. Ellwanger & Barry offer it for sale at thirty-five cents a plant. It bears its staminate flowers on one vine and pistillate on another, so that to obtain a full crop of berries care should be taken to procure stock by division of plants. There is a Japanese variety with smaller berries much more scattered along the branches but still quite abundant. It grows well over rough places and makes an admir-

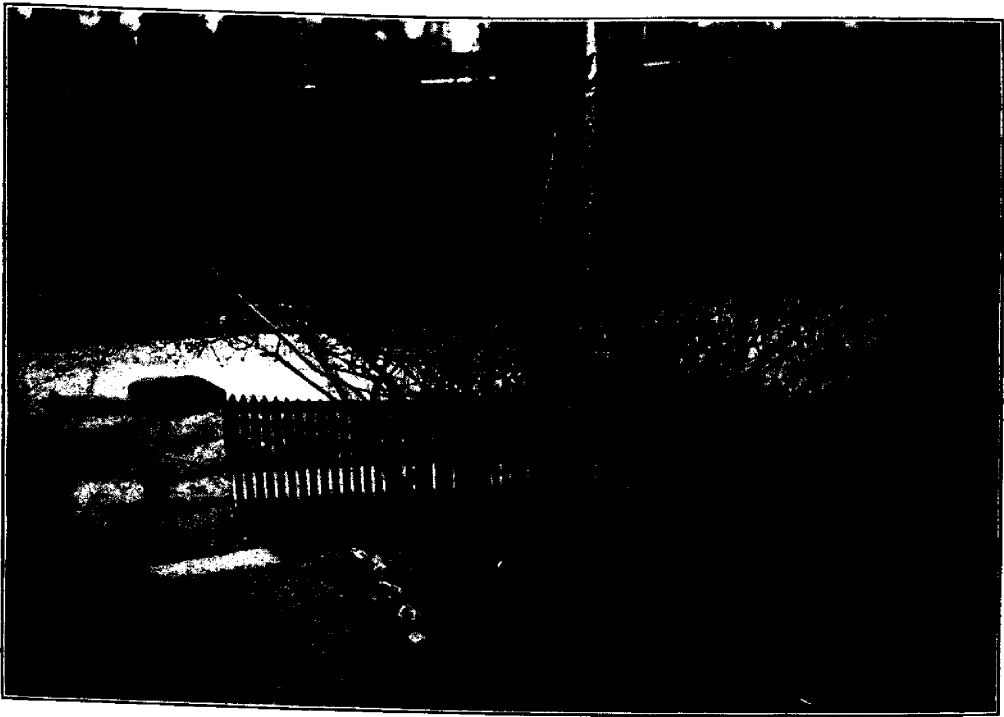


FIG. 1719. SUMACS AT "BENVENUTO," TORONTO, DEC., 1899.

within its reach. A few trees here and there should be given up to its tender mercies to form trellises as it were, over which it may hang its gay colored festoons. It grows wild pretty generally throughout Ontario, twining over bushes on river banks and in thickets. In the country the easiest way to get it would be to take it from the woods. In the city it would be less trouble to procure it from the specimens not uncommon under cultivation there. Our nurserymen do not mention it in their catal-

able mantle for a wall or rockery. It could probably be obtained from some of the leading nurseries of the Eastern States. However the native plant is easy to get and thoroughly satisfactory.

The third element of our background, the interesting shafts of white, will be supplied by the stems of the graceful birch. How well the birch contrasts with dark masses of evergreen<sup>s</sup> in the wood! Why should we do without it in the garden? The white birches should stand



at the front of the boundary belt. So much for the background of our picture. The foreground will be left pretty open that the view may not be obscured, and the house may not be smothered as it were and rendered unhealthy by having too close a wall of trees around it. The middle ground and side borders admit of very varied treatment. There will be ranged trees and shrubs with bright colored bark or persistent berries and some choice evergreens. The precise arrangement of these must be left to the taste of the person planning the ground, but we will mention some of the materials that may be used.

Some willows we would choose for the color of their bark. The golden willow (*Salix vitellina Aurantiaca*) would be one of the best, and is not hard to obtain. *Salix vitellina*, a Russian variety, with yellow bark, and *S. Vitellina Britzensis*, and *S. Palmaefolia* with red stems, are other varieties obtainable from American nurseries at a cost of about half a dollar. Willows are fast growers and so are good for early effects. The red bark of the dogwoods looks well too against a snowy background. The Siberian (*C. Siberica*) is the best, having a more brilliant stem than *Cornus alba* or any other variety. Much brighter colors can be obtained from the dogwoods if the old stems are cut down level with the ground every spring. The suckers which will spring up will be of much fresher tints than older stems. Treated in this way the native dogwoods which can easily be got from swamps or the banks of streams will be fairly satisfactory. Clumps made up of willows alone or entirely of dogwoods, or groups in which both grow together, will all look well.

The native striped maple (*Acer Pennsylvanicum*), a small tree, 10 to 20 feet high, has an attractive trunk in winter, and the Kerria, sometimes misnamed the yellow rose, has a green stem though perhaps too slender to make much show. There is a dwarf variety, *Kerria ramulis aureis*, in the market with a stem striped with yellow and green. There are basswoods too with colored bark.

The forms of some deciduous trees are very picturesque in winter, and although it would take too long to grow them for our winter gardens, yet if they are already on the property it would be a pity to remove an oak or an elm or a beech to make way for evergreens. After the birch the beech is one of the most satisfactory of our larger trees for winter effects. The weeping variety with its great, tortuous spreading branches, is curious and interesting. The light colored bark of the beech takes away the sense of bareness that most other deciduous trees are apt to inspire, and makes it preferable to the dark trunked elm with all its symmetry or the gaunt form of the oak, despite its majesty.

The garden will have more interest if some trees and shrubs, with bright colored berries, are given a place. Of these, for city gardens, nothing can surpass Thunberg's barberry for planting in masses. It bears very profusely short clusters of bright scarlet berries, which, as they are less watery than the common barberry, do not shrivel or lose color so much, and indeed will remain full and fresh till spring. Its foliage is lovely in autumn, and in winter in contrast with snow or evergreens it is very pleasing. It is very hardy, and may be easily raised from seed. The fruit of *Berberis Amurensis* fall too early to make it desirable; but there are other good barberries, the common European variety, the Japanese, *Sieboldii* and the variety *Canadensis*. Unfortunately as it is a host plant for wheat-rust fungus, the barberry is not desirable for the farm-home grounds. At the Model Farm, Guelph, some fine barberry hedges had to be destroyed to prevent loss.

Other trees, with red fruits that remain for part or the whole of winter, are the Rowans, both the American, with orange berries, and the European, with smaller red fruit; the Thorns, of which the best are *Crataegus Crus-galli*, with showy berries, lasting all winter, and *C. Cordata*, the Washington thorn; the high-bush cranberry; the cotoneasters; some of the roses and the alders. The different kinds of *Euonymus* are most desirable for the late fall, and cannot be too warmly commended. A pretty group can

be made by placing the *Euonymus*, with its scarlet berries, and the witch-hazel, with its twinkling yellow stars, side by side in front of hemlock or Colorado blue spruce trees.

The best shrub with white berries is the Snowberry, which if grown in partial shade out of the full rays of the autumn sun will keep its berries fresh a long time. For black fruit the common Privet is the best. Groups of the

should be remembered that some evergreens, such as the *Arbor vitae*, that are attractive in summer are dull and uninviting in winter, whilst others, such as the *Retinosporas* seem to warm as the weather grows colder. Many too of the choicer evergreens are rather tender, and the planter would do well to write to the Director of Experimental Farms, Ottawa, for the catalogue (which is furnished free), of trees and



FIG. 1720. EVERGREENS AND BARBERRIES AT "HILLCREST," TORONTO, DEC., 1899.

Sumac with the crimson tufts look well after the snow falls. Fig. 1719 shows a group of these at the gateway of "Benvenuto," the residence of the President of the Toronto Street Railway. Glittering masses of the *Mahonia* with its glossy holly like leaves should be disposed here and there. The leaves are attractive all winter, and in spring are succeeded by pretty little clusters of yellow flowers.

In the choice of conifers, some of which should have a place in the middle ground, it

shrubs found hardy there. Nor should the garden maker forget that many long-lived evergreens are apt to early become unsightly. They become rusty or their lower limbs die. Mr. Parsons in his recent book, "How to plan the Home Grounds," mentions as being most free from this fault the white and Swiss pines, the dwarf *Mugho* pine, the red cedar and the Oriental spruce.

For a conspicuous position perhaps there is no choicer tree than a good specimen of the

Colorado blue spruce (*Abies pungens*). Hardy enough to endure a temperature  $30^{\circ}$  below zero without injury, it also puts up with the dust and smoke of cities better than other conifers. In ordering from dealers, a nice sage specimen should be asked for as only about one in thirty in the nursery now exhibits a striking shade. It has a pleasing hue, as if covered with bluish hoar frost. It must be given good cultivation or it turns green. The first year after transplanting it generally loses lustre, but it gradually recovers. There are many other choice evergreens which we have not space to treat of. *Thuja occidentalis*, *Peabody* and *lutea*, with their golden and chocolate brown winter robes, are the most brilliant in the large collection in Queen's Park, Toronto. For carpeting the ground beneath evergreens the *Periwinkle* is useful, and is easily grown.

The plan of the garden will be somewhat different from that we have indicated if the best effects are desired from the road or street outside the grounds, or from the drive or walk leading to the house. If the idea is to have

the property look well from the road, the grounds should have some low hedge bordering on the street, the centre of the grounds should be left open, and most of the trees and shrubs should be ranged along the side lines. Choice trees and shrubs would be planted at projecting points in the waving outline of the border masses. For the low hedge the *American Arbor Vitae* would be good, or if a choice, though more expensive one is desired, one of *Thunberg's barberry*, or of the *Colorado blue spruce*, will be highly ornamental.

Should the planter desire privacy, and to have the grounds look best from the approach to the house, he should plant some tall hedge, such as *hemlock* or *Norway spruce*, along the street, or if he can get plenty of rough stones he might build a picturesque wall and cover it with creepers. The walk to the front door of the dwelling might be bordered by a pretty hedge, and the plantation arranged with large trees in the back-ground and smaller ones in the middle space of the prospect as one approached the house.

Toronto.

A. E. MICKLE.



NOTE.—Buttercups were still flowering in Toronto on 1st of December, and a pink water lily was still blooming on 3rd of December, and even at beginning of same month some thirty carnations were in bloom in a garden.

## CENTRAL EXPERIMENTAL FARM NOTES—No. 4.

**W**INTER has come since the last Farm Notes were written, and the lawn and fields are again covered with snow, though the weather has not yet been severe. There was an exceptionally open autumn this year, and winter not set in until December 4th, thus giving ample opportunity for doing work which in an ordinary season would have been left undone until spring. During this month the annual measurements are taken of the timber tree growing in

covering the ground that the evergreens become prominent features of the landscape at the Experimental farm; and there are now so many fine specimens to be seen there that a few notes on some of the most striking may not seem amiss. During the past eleven years no less than 346 species and varieties of conifers have been tested there, and the greater part of these are still alive. In the Arboretum these are arranged in groups by themselves, but on the ornamental grounds they are scattered among



FIG. 1721. GROUP OF EVERGREENS, IN ARBORETUM AT CENTRAL EXPERIMENTAL FARM.

the forest belts, the terminal growth and increase in diameter being recorded. The data which have been accumulated during the past few years are now becoming very interesting, and each year's records add to their value. This is the month also for preparing material for the annual report by compiling the notes made during the past season and making the necessary calculations for the tables which appear in it. There are many other matters also which winter gives the opportunity of attending to.

It is at this season of the year when deciduous trees have lost their leaves and the snow is

the deciduous trees or occupy but small clumps. In the forest belts are good size blocks of White, Scotch and Austrian pines, White and Norway spruce, and American *Arbor vitæ*, and these are becoming more conspicuous every year as they reach a greater height. It is in the Arboretum and on the ornamental grounds, however, where the trees are given more space to grow in, that the finest specimens are to be found, and where the graceful or stately habit of a tree may be developed at will.

## RETINOSPORAS.

The Japanese *Retinosporas* are very little known in Canada, yet these graceful trees suc-

ceed admirably if given proper attention. They belong to the genus *Cupressus*, and are closely related to the Lawson's Cypress of California and Oregon. All the varieties offered for sale are forms of two species, *Cupressus obtusa* and *Cupressus pisifera*, yet in some of the varieties there is no resemblance to the species whatever, and it is only when a variety "sports" that the true parent is revealed. A few notes may help to distinguish these species and varieties.

thread-like pendulous branchlets. It is quite hardy and thrives well (Fig. 1721).

*C. pisifera squarrosa*—This is the least valuable of all the varieties of *C. pisifera* at Ottawa, as it is not perfectly hardy. Every winter it is more or less injured by sunscald, and on this account it is seldom that a symmetrical specimen is found. It is of much more dwarf and compact habit than the others, with short leaves of a pale silvery colour.



FIG. 1721. CUPRESSUS PISIFERA FILIFERA, IN ARBORETUM AT CENTRAL EXPERIMENTAL FARM.

*Cupressus pisifera* (*Retinospora pisifera*)—All the *Retinosporas* are ornamental, and this and its varieties form a very beautiful and varied collection. It becomes a good sized tree in Japan, but like its varieties it is more shrub-like in its growth at Ottawa. It is of pendulous form with bright green leaves and very graceful habit.

*C. pisifera filifera*—A very distinct and graceful variety with drooping branches and slender

*C. obtusa*—This is a native of the mountainous districts of Southern Japan, and attains there a height of from 60 to 100 feet. It is a pretty tree, but the specimens at the Experimental Farm have not developed enough yet to determine whether it will make a symmetrical tree here or not. The bright green of the upper surface of the leaves makes a fine contrast with the glaucous shades underneath.

*C. obtusa aurea* and *C. obtusa gracilis aurea*

are two of the most beautiful golden leaved trees yet tested. The yellow is of such a rich shade and the trees are so graceful that they make very striking objects on a lawn.

*C. obtusa lycopodioides* — So unlike the species that their relationship could hardly be credited at a casual glance. This is a compact,



FIG. 1722. CUPRESSUS PISIFERA PLUMOSA, IN ARBORETUM AT CENTRAL EXPERIMENTAL FARM.

stiff branched variety with peculiar blunt dark green leaves. It is more curious than ornamental.

*C. ericoides*—Heath-like Retinospora. It is unknown whether this is a variety of the Japanese Retinosporas or a variety of the White Cedar (*Cupressus thyoides*) of the Eastern States. It is a pretty dwarf, compact shrub, only attaining a height of about 2 feet, with fine, soft, delicate green foliage, which becomes an attractive purplish tinge in autumn.

All the species and varieties of Retinosporas previously mentioned may be called hardy at Ottawa, with the exception of *C. pisifera squarrosa*. Some of the others are occasionally sunscalded on the Southern side, and when planted this should be taken into consideration and a place given them where they will be protected to a certain extent from wind and sun in late winter and early spring. The Retinosporas are comparatively slow growing trees, the tallest planted in 1889 being only about eight feet in height. The choices of the group are *C. pisifera filifera*, *C. pisifera plumosa*, *C. obtusa aurea*, and *C. pisifera plumosa aurea*. They are very desirable, and it is surprising that more of them are not planted.

W. T. MACOUN,

Horticulturist, Central Experimental Farm.

## THE HYACINTH BEAN.

AS an ornamental climber the Hyacinth Bean, *Dolichos lablab*, is worthy of consideration. The plants start readily, grow vigorously, make a fine display of foliage, and bear abundantly large, bean-like clusters of showy lilac and white flowers. These are followed by purple-colored pods which enclose the seeds, various forms of which are shown in the little sketch. *A* represents a seed of *Dolichos giganteus*, a giant-flowered sort with large, black beans showing a white ridge; *b* shows the purple and *c* the white *Dolichos*; and *d* represents the brown seed of *D. bicontortus*, the pods of which are curved like a ram's horn. All of



FIG. 1805.

these are useful where vines for shade and bloom are desired. *D. lablab* is also known as Egyptian Bean, having been introduced from Egypt in 1818. It may be treated as a hardy annual, the seeds being planted early in spring. Give them string support as soon as they show a disposition to run. The plants will run from fifteen to twenty feet high during the season.—*Parks' Floral Guide.*



FIG. 1723. ART AND NATURE BEAUTIFULLY COMBINED AT PATERSON, N. Y.

## LANDSCAPE GARDENING—I.

**L**ANDSCAPE Gardening, Landscape Architecture, or Landscape Engineering, are terms which are employed to represent a profession concerning which very little is understood by the majority of people.

Many have the impression that the landscape gardener's work only begins when the house is completed,—that it consists merely of grading, sodding, seeding, and planting. As a result of this popular ignorance there are many nurserymen, florists, and contractors who make this kind of work a part of their business announcements using one of the above titles, usually that of Landscape Gardener. This branch of the plant dealer's business gives an opportunity to use plants that may not at the time be in demand and of which they may have a surplus. It is in general their practice to give about the same treatment to all places, irrespective of characters or surroundings; to remove all natural rocks or bushes, grade to a smooth

surface, sod or seed, and then plant throughout the open spaces and along the walls and borders the common, usually exotic, plants, with an assortment of the horticultural forms that happen at the time to be in fashion and are easily and cheaply procured in the nurseries. Their attempts to go beyond the ordinary practice too often result in such offences to good taste as a rockery in the centre of a fine bit of lawn, which, as usually made, is and always must be a bare and ugly pile of rocks; or a discarded iron kettle in which nothing creditable can be grown, placed in a rustic tripod and the whole arrangement painted bright red; or useless walks and roads with unmeaning and unnecessary crooks.

There is an impression abroad—with many, a conviction—that there is a higher practice as a profession, by which finer and more original and artistic results are secured, but with this impression is the feeling that this practice is only within the reach of

cities or wealthy individuals, and is so far beyond the means of small property owners that it is not worth their time to look into it. This is a wrong impression, for even the smallest place is worthy the attention of the landscape architect, and there is as much reason for securing his services in the selection, arrangement, and construction of the grounds as there is in the employment of an architect for the buildings. A properly equipped landscape architect would be able to secure a much better result in every way, for the same expenditure of money that is required to lay out and complete the first planting of the place in an ordinary way. This higher practice of the profession should usually begin with the selection of the property on which a home is to be established, for the landscape architect in consultation with his client can often detect advantages and disadvantages that would be entirely overlooked by the ordinary observer, and, knowing the tastes and requirements of his client, can determine the amount of land necessary to carry out these requirements properly and thus often save a heavy expense in the purchase of additional land, found to be necessary after the first purchases are made, at a much increased cost over that first secured. The pieces of land in most towns with the greatest possibilities for the making of an original, interesting, and often unique place are very likely the ones longest neglected and least sought for, because their picturesque natural features or irregular surfaces will not lend themselves readily to the smoothing-out process which most land undergoes, or to square lots as laid out by the real estate agent with the assistance of the land surveyor.

I have in mind an old worked out limestone quarry, in a dense wood, which is overgrown with ferns, vines, and bushes, and near it a summit commanding a fine view, with an open field sloping away from it. In another place a ridge of great angu-

lar fragments of rocks, which is shaded and carpeted by pines; near by, a pleasant slope, at the base of which is one of the finest white oaks I know. At another place a beautiful undulating surface, with splendid white oaks and chestnuts, and at one side a bit of meadow with a pool, surrounded by masses of barberry, blueberry, azalea, rhodora, and all the pretty plants and flowers that go with them. Another place there is a beautiful tree-fringed meadow,—a perfect little park in itself. All these are within less than a mile of railroad stations and with low valuations.

We may hope to see the time when such lots will be fully appreciated and such trees preserved,—not destroyed, as I know one splendid elm to have been, because to go around it a slight curve in a walk to the front door of a cheap house would be necessary.

In the selection of land, healthfulness should be one of the first considerations. It should be well drained—preferably a porous, sandy, or gravelly soil. This applies particularly to the land where the house is to stand, for nothing can be more unhealthful and disagreeable than a damp cellar, and when the condition is such that it becomes necessary to moor a raft to the cellar stairs to be used on occasions when one has to go fishing for coal and potatoes, it is not only unhealthful, but ruinous to one's disposition. Good sanitary conditions in the neighborhood are as important as good drainage. If it is thickly settled, the ground may be saturated from leaking cess-pools. Rubbish heaps, barn-yards, sink-drains, and vaults should be investigated and the purity of the water supply should be looked into. A pleasing outlook from the grounds is a very desirable feature; if not a landscape it may be a fine tree or a tree-arched street, or a bit of your neighbor's well-kept grounds. The topography of the land is also to be considered. A steep slope toward or away



from the road is expensive and difficult to build upon, but often very sightly and cool in summer and warm in winter, if on the right side of the hill. A gentle slope toward the road gives good surface drainage and an easy approach. A gentle slope away from the road is not bad, and if properly managed, a pleasing result may be secured with a house set below the road level. The most satisfactory result can often be obtained on an irregular piece of land, and very often the irregularities can be so utilized as to make construction more economical than on

a flat piece. Ledges and boulders often form very interesting and valuable incidents, giving the place an individuality which it would otherwise be difficult or impossible to secure. Masses of native trees and bushes, or individuals of either; an ancient and picturesque fruit tree; a vine-covered surface, are often of the greatest value and can be utilized to give results that could not be secured in years by artificial planting.

WARREN H. MANNING.

Brookline, Mass.

(To be Continued.)



ORCHIDS AT CHRYSANTHEMUM SHOW, TORONTO.

Photo by E. E. King

## THE FLORISTS' EXHIBITION.

THE tenth annual floral exhibit by the Toronto Gardeners' and Florists' Association was in no way behind previous displays. A writer in the *Toronto Mail* says of it:

The chrysanthemum is still held a hot favorite by the flower-loving public, and deservedly so.

The indifferent spectator might be excused for not going into ecstasies over the ordinary plant with the ragged head and one eye, as first introduced to the civilized world, but the person who fails to see real beauty in the great compact blooms of white, pink, or yellow, such as are shown in profusion at the Pavilion, misses a rare pleasure. The "craze" in this variety of flower just now is to

force one magnificent bloom as large, round, and perfect in every way as possible. The big plants with five or six dozen blossoms are being relegated to the background, and comparatively few are on exhibition. The bloom with the long tangled petals growing in apparent abandon—a native of Japan—is still very much in demand, and comes in for a lot of admiration. The Chinese variety, however, with the petals turned in, making a quilted effect, and growing very large, round, and compact, is considered by many to be nicer, but of course it is purely a matter of taste.

Miller & Sons, the well-known Bracondale florists, are showing cut blooms, one of which deserves special note. It is named the "Timothy Eaton," is pure white, almost as round as a ball, and measures 21 by 23 inches. Mr. Miller is justly proud of this bloom which he claims is a world's record for size, and \$1,000 would not tempt him to part with the stock.

To many the most attractive exhibits are the groups of foliage plants, including chrysanthemums, palms, ferns and orchids. There are a number of these, each limited to 90 square feet, and a lot of ingenuity is manifest in the attractive manner in which they are displayed. The city's

exhibit occupies a central position on the stage, and possibly comes in for more encomiums than the others. It includes some very rare species, which it is questionable if they could be duplicated on this continent. The chrysanthemum may be queen, but the orchid is certainly the king of the floral world. A very fine specimen of the "Cattleya Dowiana" has a rich purple bloom with bold stripings. Some splendid specimens of the celebrated pitcher plants, which prove so useful to thirsty travellers in the tropical countries, are also to be seen.

While the show was opened yesterday, the cut-flowers, such as roses, carnations, violets, and the design work, are to be seen for the first time today.

The arrangements for the public are very convenient. There is plenty of room to move about down stairs, while in the gallery there are seats where one may rest and listen to the sweet strains of the orchestra.

Hon. G. W. Ross was present in the afternoon to formally open the show, but the arrangements had not been quite completed, and as the Premier was unable to wait the ceremonies were postponed.

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## THE BITTER ROT OF THE APPLE.

**WE** ARE amazed at the multiplying difficulties which beset the devoted fruit grower. As if it were not enough to spray for codling moth, apple scab and grape mildew, we are now having added a most destructive fungus, the bitter rot of the apple, which develops from spores floating in the atmosphere, lodging on the skin and there taking root. The thread-like mycelium works its way through the cellular tissue of the apple, destroying its texture, causing brown spots in the flesh which show even through the skin. An apple affected with this spot may appear fairly well, but if pared or cut these spots under the skin will be found to extend far toward the core, and if numerous, they will entirely unfit the apple for any use whatever.

At Maplehurst we first noticed this evil on Baldwins grown on the bank of Lake Ontario. It was several years ago that we observed it first on a few trees, but it has

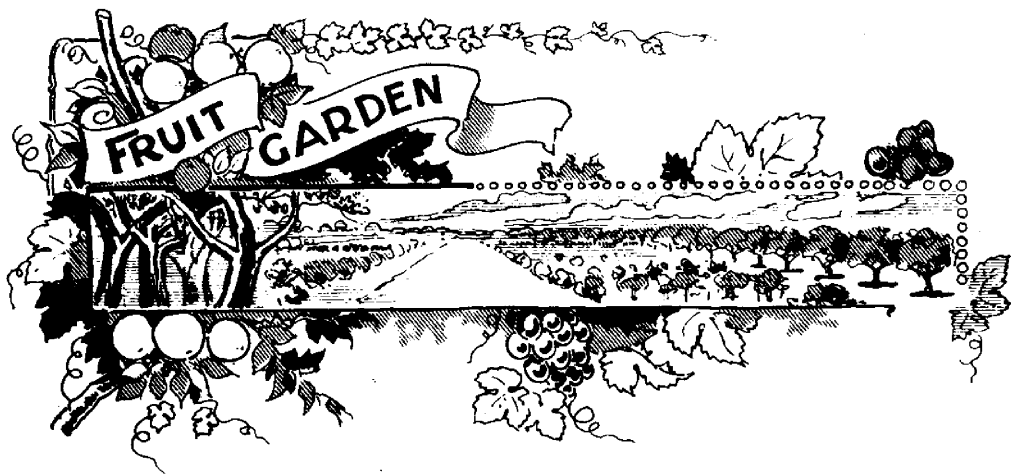
gradually extended from one orchard to another and threatens to become a most serious evil.

The remedy recommended is the now well known Bordeaux mixture, which is so dirty a mixture to handle that many persons will not apply it. Fortunately for such gentlemen, the spramotor people have invented a protection just under the nozzle at the top of the pole, by the use of which all leaking bordeaux is shed off, leaving the pole always perfectly dry and clean for handling, without gloves.

The first application must be made soon after the buds begin to swell in the spring; the second, when the fruit is about the size of marbles, and the third when nearly grown.

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THE O. A. C. REVIEW is now published in magazine form, and is a very creditable college magazine.



## THE CITY FRUIT GARDEN.

**I** COME before you as the representative of the Ontario Fruit Growers' Association, or, as it should be called, the Ontario Horticultural Society, for we have long ago ceased to confine our attention to the orchards and fruit gardens of Pomona, and have been led out into the domains of beautiful Flora, and even farther, into the sylvan glades of Faunus.

We welcome you as an affiliated society, and congratulate you upon accepting the broad and liberal policy of the Agricultural and Arts Act in its widest interpretation, and upon your agreeing with us that it is better to so utilize the munificence of the Department of Agriculture as to give the greatest good to the largest number, instead of making large gifts to a few prize winners.

Three years ago, four of our directors proposed the encouragement of affiliated horticultural societies, believing that our whole work would thereby be strengthened, and all persons directly benefited. The plan has been received with universal favor. The Minister of Agriculture views it with favor, our Association is ready to help each

local society in every possible way, and the societies themselves are ready to co-operate with us to make our journal a greater success, and of wider scope.

You have an important work to accomplish. It is not the education and encouragement of a few specialists by giving them large money prizes, but the diffusion among the masses of a taste for the ornate as well as the useful in horticulture. I come myself to speak more especially upon the latter, having spent all my life, since my college days, in the study and practice of fruit culture, and withal feeling I am but an amateur.

**THE GARDEN AND LAWN.**—What pleasant associations are suggested by the words! Do not the words remind you of some delightful retreats away from the crowd, away from the burning sun; a place of rest and refreshment, especially for those men and women whose time is spent in the office, behind the counter or in the workshop; for here the birds sing, the air is pure and the flowers give forth their fragrance. Those dread enemies of humanity, blasting fever and wasting consumption, take their flight from those homes whose

inmates live much in the pure air of heaven, and make free use of the luscious fruits of the garden.

I take it that I am addressing amateurs, and I do not even dare to call myself a professional. Amateurs you must be to succeed. I mean you must be lovers of the garden to succeed with it. Do you remember what Ruskin says in "Queen's Gardens?" "You have heard it said (and I believe there is more than fancy in that saying, but let it pass for a fanciful one) that flowers only flourish rightly in the garden of some one who loves them." He is applying this truth to humanity, neglected about us, but I take it in its literal application. I apply it to the fruit or the flower, or the house plant. Unless you love it and so nourish it, you cannot attain the best success.

Another secret of making your garden and lawn a thing of pleasure and delight is that it should be your very own. I do not mean simply by ownership, but the evidence of your own labor, with your own hands. The gardener may do better work, but it is not so much yours unless you do it all, or at least a part yourself. You will be more interested thereby, and it will be more to you. You may despise the labor, but that will be the very secret of your highest enjoyment.

But enough on general lines. Now I will try to give you some hints for the fruit garden, and name some things which may be suitably planted in it.

First, its site is too often chosen without regard to the lawn. I would favor it being made an extension of the lawn; not fenced in by high boards, but only screened from the front by an ornamental hedge, and most easy of access for the family and visitors. Unless it can be a place of beauty, worthy of the presence of visitors, it had better not exist.

The object of it is twofold: First, the

joy in the very garden itself, in watching and directing the growth of the trees, and in eating the first ripe fruit from each tree, and studying the relative value of each; and second, the advantage of its products upon the table. No such fresh, delicious fruits can be purchased in the markets as can be brought in direct from the garden, just gathered when at its very best. What more inviting table ornament in the autumn than a plate of assorted red, white and black grapes. They look almost too good to eat, and remind me of the Irishman who in his country never saw fruit on the table, except for ornament, and when he saw a Canadian taking off a whole bunch of grapes, cried out, "Oh moi, he's aitin the bokay."

Apples I would no longer plant in a city garden. They take too much valuable space, and the best are so cheap in our markets. If I had apples in a garden of limited space I would have the trees dug out, root and branch, and used for firewood. It is even a question now-a-days whether it pays to grow apples in the field for export, and, unless the present efforts of the Department of Agriculture in opening up new markets are successful, there is surely little, if any, money in growing apples; I might also say in fruit growing of any kind.

Pears are more desirable, for the best table varieties cannot always be purchased in our markets, varieties, for example, such as Doyenne d'Ete, Giffard, Rostiezer, Petite Marguerite, Louise, Clairgeau, Sheldon and Anjou. The Bartlett you can always buy, for growers plant immense orchards of it, and last year you could buy that variety for 25 cents a basket. So you need not plant it, nor the Duchess, a good pear, but constantly on sale. Pears for a small garden should be grown on quince stock, which makes them dwarf, and occupy but little room. These you can plant about twelve feet apart each way. To get the

best results, careful training will be necessary. From the very first aim to produce a pyramidal shape by encouraging one upright leader, and cutting back the side branches to a line drawn from the apex of the tree to the ground at about an angle of 45 degrees. Every year the new growth needs to be cut back one half to two thirds, and thus fruit spurs will be encouraged instead of long barren stems.

No part of your fruit garden will be of more interest to you than this dwarf pear plot, for it will be both beautiful and useful. When I speak of dwarf pears, I think of one of the first presidents of our Association, an enthusiastic cultivator of dwarf pears, at that time a citizen of your town, who had nearly every variety of pear in cultivation, and became quite an authority on varieties, though only possessing a small garden. I refer to the late Rev. R. Burnet. No doubt some of you remember him, and possibly you even know of his garden, in which no doubt his pear trees still survive him.

And now I want to refer to a fruit which every citizen may cultivate, for it will climb a fence or an alley wall. I mean the grape, one of the most wholesome of fruits, and the vine is so cheap and will so early yield fruit, that even the tenant may well plant it in his back garden. A vine each of the following would give a succession of delicious grapes for the table from September 1st, until Christmas, or even longer. I name them in the order of ripening: Moore's Early, Lady, Lindley, Wilder, Delaware, Diamond, Salem and Vergennes. The last two varieties might be kept well into the winter for table use. There is no secret about keeping them in good condition, except a moderately low temperature and in moderately humid air, or wrapped in oiled paper. If the cellar is warm and dry they will shrivel up.

The vines may be trained to climb a wall

and left without pruning, but it is far better to shorten back the new growth every year, except of course the main leaders to cover the wall. If trained on the wire trellis, the neatest method is to run two arms on the lowest wire and train uprights from these to the two upper wires. Another simple method, known as the Kniffen System, is to run out two or four arms on the higher wires and let the young wood hang down. This latter is called the "lazy man's method," but anyway it is a very good plan where it is not necessary to lay down the wood in winter.

The cherry is well adapted to the city fruit garden. The tree is ornamental in habit and in bloom, and the fruit both attractive and marketable. The fruit cannot always be purchased in the market at its best; like the peach and plum it is most luscious when gathered from the tree at the nick of time when it is just at its best. The market gardener picks his cherries on the green side, and they do not improve after gathering, so you seldom get them at their best from the green grocer. The cherry must have sandy soil for the best success, but whatever soil, it must be dry. If not too close in texture, it will not need much cultivation, so you can plant the cherry along the border, if you choose, but, if the ground is hard, you must either dig about the trees or mulch them well. For a succession I would plant Governor Wood, Black Tartarian, Napoleon, Early Richmond, May Duke, Montmorency, Elkhorn, Windsor and English Morello. The cherry does not need much pruning. Indeed, if you cut it very much, you will injure its vitality. There is no fruit more profitable, and a small garden planted with cherries will give you good returns.

Of small fruits I cannot encourage the growth in the home garden to any great extent. Blackberries and raspberries are too full of prickles and too unsightly to add to

the attractiveness of the home surroundings, and had better be banished even from the back yards; the fruit is cheap and can be purchased at less than you can grow it. The only fruit of the kind I would grow would be strawberries. These you want fresh from your own vines to have them at their best, and you cannot always depend upon your

fruiterer for them. They will repay the highest cultivation and give wonderful yields of fruit. Try Clyde, Bubach, Saunders and Haverland, or some of the other highly recommended varieties, and see how well you will be repaid.

L. WOOLVERTON,  
Before Hamilton Horticultural Society.

## NOTES ON SMALL FRUIT CULTURE.

### GOOSEBERRIES.

I have tried a number of sorts the past few years with following results:

**INDUSTRY.**—This variety with me has been a complete failure. It is a very poor grower and not productive enough to be worth growing.

**DOWNING.**—Has been our main market variety. It is a good grower, fair size and very productive with me. It has never mildewed although I have tested over 20 years.

**WHITESMITH.**—Very large and very productive, but some seasons it has mildewed so badly it was useless. The past season it was perfectly free from mildew.

**PEARL.**—I received the plants from Fruit Growers' Association, a small plant by mail. They have grown very rapid and borne heavy crops, some bushes yielding 12 quarts each. I have about 50 of them. They have shown no sign of mildew so far. Fruit fair size, somewhat larger than Downing and a much better flavor. The bushes are more open and much better to pick. I am digging out the Downing and replacing them with Pearl.

Two years ago I planted some of the Columbia and Chautauqua gooseberries. Both those varieties have borne heavy crops of very large fruit and good quality, no mildew, but they have made a very slow,

poor growth of wood. I think I have let them bear too much.

### RASPBERRIES.

**CUTHBERT.**—One of finest of berries but they have winter killed so badly with me that I have had to dig them all out. I think my land was too rich for them and grew the wood too fast and soft.

**SHAFFER.**—This variety has done remarkably well with me. It has winter killed but little and borne magnificent crops of very large fruit of good flavor. Fine for family use and home market, but too soft for shipping.

**MARLBORO.**—Fruit large and very firm, good bearer and hardy, but the bushes are poor slow growers, and consequently not a profitable sort with me.

**CONRATH.**—Received from Fruit Growers' Association. This has done remarkably well with me; I think it the best of all the black caps. Berries good size and firm. Flavor good. Bushes good rapid growers and perfectly hardy.

**LOUDON** is the best red raspberry I have yet tried. It is very large, very solid and very productive. The bushes are perfectly hardy and good growers.

Notes on Strawberries and Currants later on.

St. Marys, Ont. S. H. MITCHELL.

## THE WHITBY MEETING.

AS USUAL, our annual meeting last month was well sustained by the presence of the foremost fruit growers in the province, the leading spirits in horticulture from our Agricultural College and the Central Experimental Farm, and by some representatives from our sister societies.

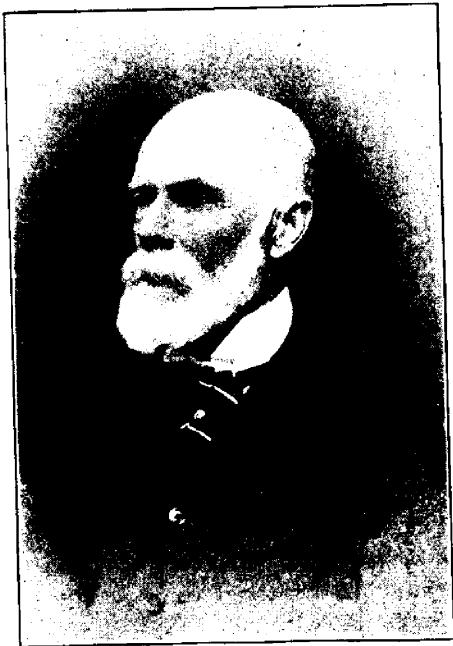


FIG. 1725. W. A. WHITNEY, IROQUOIS.

The meetings of the first day were held in the City Council chamber, and were called to order by Vice-President W. M. Orr, of Fruitland, the President, Mr. W. E. Wellington, being absent on a tour to Great Britain.

Fruits Hardy along the St. Lawrence were treated on by W. A. Whitney, of Iroquois, who drew attention to the excellent keeping qualities of the Fameuse and other varieties grown in that district. Next to the Fameuse he mentioned McIntosh

Red as one of the hardiest, and valuable also for size, beauty and quality for desert, but it drops early and is subject to the apple scab. The Ontario promises to succeed, and the Scarlet Pippin, which originated at Maitland, is a most desirable new variety, the originator, Mr. Harold Jones, having found a special demand for it as a dessert apple in Montreal. The Wealthy is also a great success, being hardy and free from scab, but must be thinned to secure good size.

Few pears will succeed; the Kieffer and the Flemish Beauty being among them; of plums he spoke highly of Lombard, Saunders, Glass and Yellow Egg, having been grown with success.

Mr. E. C. Beman, of Newcastle, spoke of pears for the professional and amateur, giving a technical description of several kinds, and was followed by our new director for Bruce and Grey, Mr. J. I. Graham, of Vandeleur, on Irrigation and Top Grafting. This gentleman has natural facilities for turning water on his orchards, and has utilized them in such a way as to produce the finest sized fruit, even in the seasons of greatest drouth. He had also some excellent results in top grafting which drew out an extended address from Mr. G. T. Powell, a noted horticultural lecturer from New York State, from which address we give the following notes:

By Top Working in propagation we can bring a Spy in earlier bearing, and make the King more productive. The wood of Spy is exceedingly hard, as is shown in the work of pruning this variety; it therefore forms an excellent stock for the more succulent wood of the King. Special selection of scions is of far more importance than usually supposed. Nursery men usually cut scions from young trees, which are in the wood producing age, and consequently this

tendency is emphasized from year to year, and our orchards become late in bearing. Scions should be cut from bearing trees, and from those which bear most abundantly, in order to propagate this characteristic. So also there are great possibilities in the way of propagating characteristics of size of fruit, color, flavor, etc. King scions chosen from the typical orchard tree and set on young Northern Spy trees gave fruit of even size, fine color, and bore at an earlier age. One tree for example yielded two barrels of fruit at the age of eight years. A Sutton Beauty tree, similiarly treated, two years top grafted, gave two bushels of fruit.

The Kieffer pear had proved a good stock for Anjou and Bosc. The union was perfect, and promised to endure well. Anjou on Kieffer was much more productive than ordinarily; indeed the fruit needed to be thinned to prevent overbearing. The Bosc had succeeded almost equally well, and these two he valued most highly of all pears for shipping purposes.

Another important point emphasized by Mr. Powell was high tillage until July, to be followed by cover crops such as Crimson Clover, or Cow Peas, to be plowed under the following spring.

Mr. E. B. Edwards, of Peterboro, gave an interesting account of the excellent results in securing fine crops of Blenheim Orange apples as a results of tillage and spraying under the direction of the Government Superintendent of Spraying; and A. H. Pettit, of Grimsby, drew attention to the damage done the fair name of Ontario by allowed fraudulently packed apples to go forward to the British market. The secretary read a letter from President W. E. Wellington, saying that he had visited Covent Garden Market, and was much chagrined at finding the disfavor into which Canadian apples were falling owing to this evil practice on the part of speculators. A

strong resolution was passed by the Association pressing upon the Dominion the extreme importance of taking some action in this matter, by appointing inspectors at shipping ports with power to detect fraudulent packing, and prevent its export or at least erase false brands and fine the offender.

Prof. J. W. Robertson, of Ottawa, gave a most valuable address on the "Com-

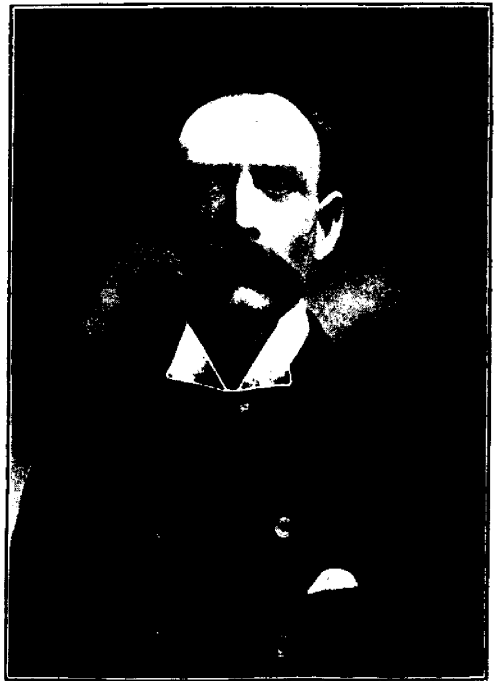


FIG. 1726. HAROLD JONES, MAITLAND,  
Originator of the Scarlet Pippin.

merce in Large Fruits," showing good success in 1899 in exporting pears. One hundred and forty-five twenty-four pound cases of especially fine Bartletts for example had sold in Great Britain at \$1.97 a case, netting the grower \$1.54 a case. The points required to ensure such prices were prime quality, large size, and fine condition on arrival. The best sizes were from two and a half inches in diameter upward, such as would require sixty or seventy pears to a



case. They must be picked at the right time, just when the seed is turning brown, never while it is still green.

For apples, even fancy summer varieties, a case holding 40 or 50 lbs. is best. A No. 1 stock, wrapped and packed in 40 lb. cases sold at from 7 to 9 shillings per bushel; but the British markets have no demand for small apples.

Another important point is to have large lots of one sort and one grade for best



FIG. 1727. W. W. DUNLOP, OUTREMONT,  
Sec. Que. Pomol. Soc.

results. Canadian shippers forward too many varieties in a shipment to get bids from the best buyers. The growers should forward only large, sound apples uniform in size in each package, and these only. The second-class stuff and smalls must be otherwise disposed of; it had better be consigned to the manure heap than shipped, and more money would come back to the country for the selected portion than for the whole.

The cold storage facilities for fruit on steamships are likely to be improved so as

to provide small compartments holding two or three carloads each. Better ventilation of holds for apple storage in 1900 is also promised, but all these provisions will be unavailing unless it is someone's business to look after them at time of loading. With care, skill and honesty, ultimate success in the export of fruit is assured.

For success there should be established a standard of (1) sizes, (2) of form, and (3) of variety; the name of both packer and grower should be placed on every package in order that the grower might be informed in case a packer or shipper put up his fruit fraudulently. Of course the packer alone would bear the blame and suffer loss in such a case, but it would serve a good purpose to have all this information on the package. The punishment for use of false brands might be confiscation of goods so put up, or at least removal of the grade marks and an exposure of the offender.

The San Jose Scale question was up for discussion, being introduced by Mr. M. Pettit, of Winona, and the vigorous action that has been taken by the Provincial Department of Agriculture in endeavoring to stamp out the pest, high eulogised. A resolution was passed favoring permission to treat moderately infested trees with whale oil soap, crude petroleum or fumigation, under the direction of an inspector.

Dr. Saunders, director of the Dominion Experimental Farms, addressed the meeting on New Hardy Hybrid Apples in Manitoba, showing some wonderful results obtained by crossing *Pyrus baccata* with *Duchess* and with *Tetofsky*. The Doctor has long been foremost of horticultural experts in Canada in this important field of producing new varieties of fruits by hybridization, and results of his work may be expected which will be of inestimable value to our North West. The Doctor also spoke on our Ontario fruits in Manitoba, showing what an excellent market was opening up for us,

especially for our Concord grape. He also described the excellent work in progress of preparing a display of Canadian fruits for the Paris Exposition.

Dr. Hare, of Whitby Ladies' College, and Mr. J. E. Farewell and Mayor Rutledge, of Whitby, gave excellent addresses; Mr. A. W. Campbell, Provincial Road Instructor, and R. Dawson Harling, agent of the Manchester liners spoke on their special spheres of work. The latter speaker gave fine stereopticon views of the new Manchester Ship Canal, a route of interest to Ontario fruit growers, since it opens up the whole interior of England to our goods.

It was cheering to have with us three delegates from the Quebec Society, viz.:

the president, Mr. C. P. Newman, of Lachine Forks; the secretary, Mr. W. W. Dunlop, of Outremont, and one of the directors, Mr. R. W. Shepherd, of Como. This latter gentleman has had considerable experience in exporting a special grade of fancy apples for private orders in the Cochran case, reaching a class of people in this way who do not hesitate on account of price, providing they get the article wanted.

This reciprocity of visits and interchange of thought is mutually helpful, and we hope it may long be continued. We are pleased to show our readers the face of Mr. Dunlop, the secretary, and hope by and by to have the same privilege with Messrs. Shepherd and Newman.

## TOP GRAFTING A PARTICULAR ART.

**I**NDISCRIMINATE top-grafting won't do. As well as seeing that we have a robust tree and a good live scion, there should certainly, in my experience, be some approximation as to vigor between the tree grafted and the graft, and also a similarity of wood. For example, if we stick a scion of the Ben. Davis (a very vigorous grower here) on a Scott's winter (a spindling slow-growing tree here), what have we the first autumn even? An unsightly joint, looking about as well as a man's hat on a child's head; and in the second year the vigorous scion is so top heavy, has so outgrown the limb of the tree to which it has been united that it cannot stand the force of any wind and breaks off at the joint, thus rendering your time, labor and outlay worse than useless. There is much to be understood before we have this grafting business down to perfection, even if it is an art which the world has known for thousands of years. Not only must we employ it with a view to secure good fruit from poor trees; not only must we strive to better the coloring and texture and flavor of already fairly good fruit by a nice adaptation of suitable scions, but we must see in all this that the wood

consideration is attended to and vigorous scions put on vigorous trees and *vice versa*. The graftsmen who go about now, while they do a good enough job if making scions grow at all, do not understand this important matter as it should be understood—as the breeder understands for instance the coupling of his animals in proper lines to develop all the perfections of the breed—and hence it is that many orchardists who thought to have dead sea fruit turned into a delight to the palate and a good seller are disappointed to the very point of disgust. "Oh, anybody can graft!" is the cry of the amateur once he has seen it done, and certainly about anybody can stick on scions which may grow but which are likely to render the last state of his orchard worse than the first. To graft intelligently and with success as the result sought after, we want without doubt the best trained, most intelligent and most skillful scientists possible, and they must be as honest as they are expert also, or the transformation of unfruitful orchards into fruitful, paying ones is still a desideratum for the distant future to satisfy. Mean-time every grower of fruit should consider this matter seriously. A. E. BURKE, Alberton, P. E. I.

## ORIGIN OF THE MCINTOSH RED.

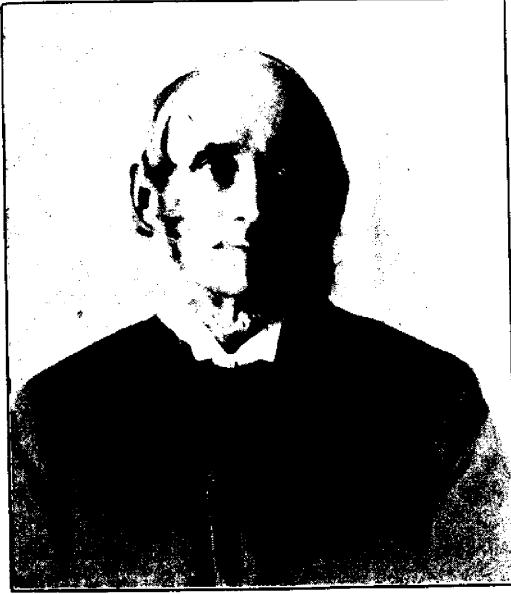


FIG. 1728. ALLAN MCINTOSH,  
Originator of the McIntosh Red Apple.

SIR,—At the annual meeting at Whitby of the Ontario Fruit Growers' Association, the McIntosh apple came in for a good deal of praise by all who spoke of the best and hardiest apples. This has reminded me of a long delayed purpose of sending you two photos of the originator of the original tree, with a short sketch of his life.

From a manuscript autobiography now before me. I find that Allan McIntosh was born on the 24th of August, 1815, and some one of the family has written in the magazine, "Died Feb. 3rd, 1899." His grandfather was a farmer on the Mohawk river, in New York. His father came to Canada at the age of 18, and in the year 1811 settled on the lot in Matilda Township, ever since occupied by the family.

In clearing away the second growth for a building place, he came across some young

apple trees, which he spared. One of these was the original McIntosh Red apple tree.

His son Allan, about thirty years ago, began to propagate it, and the nursery is still being carried on by his son Harvey. It will be seen in the cut that the tree, and the man standing by, are both decrepid in appearance. The homestead was burned a few years ago, and the tree barely escaped with a little life on one side. I believe the old tree has now ceased to stand.

Let us pay a deserving tribute to the man who has done so much for our fruit interests, by preserving his memory in the pages of the Horticulturist.

Iroquois.

W. A. WHITNEY.



FIG. 1729. THE ORIGINAL MCINTOSH RED  
APPLE TREE.

## ONTARIO ROGERS GRAPES IN MANCHESTER.

**F**AILURE having attended the previous efforts made to introduce our Canadian grapes into the British markets, owing to the varieties selected for the experiment, the Board of Control of Fruit Experiment Stations of Ontario, acting under instructions received from the Minister of Agriculture for the Province, instructed the secretary, Mr. L. Woolverton, to make an experimental shipment of black and red Rogers to B. W. Potter & Co., Manchester, England.

The Concord and Niagara grapes were not only distasteful to the British palate when compared with Hamburg, Chasselas, Tokay, or even Almeria grapes; but they were also unsatisfactory shippers, being easily crushed, easily loosened from the stems and subject to mould. The several carloads of these former kinds which were placed upon the British market created a strong prejudice against Canadian grapes and led dealers to strongly discourage any further attempts to introduce them.

The writer was perfectly confident that certain varieties of Rogers' Hybrids, such as Lindley, Agawam, Wilder and Salem had both the keeping qualities and the excellent flavor which would ensure an ever increasing demand if once introduced. He therefore made up 515 cases, chiefly Lindley, labelling them all Rogers' Red or Rogers' Black as the case might be, for simplicity's sake. The cases were the same size as the pear cases, about 5 inches deep, 2 feet long and 1 foot broad. Four veneer baskets with wire handles, holding about  $4\frac{1}{2}$  lbs. of grapes each, were placed in each of these cases, and into these the grapes were carefully packed about October 1st. Each case therefore contained from 18 to 20 lbs. of grapes, and having been allowed to stand about a

week before packing, the stems were well dried and in condition to resist mould. The steamer Manchester Port, on which cold storage space had been engaged for the consignment, was taken for service to Africa and consequently the fruit did not leave Montreal until November 5th.

Now, while the returns from this venture have not been a financial gain, owing to the strong prejudice against their introduction, the accompanying reports from the consignees, from Peter Byrne, Ontario Government agent at Liverpool, and from the British press, combine to show that we have scored a real success, which, if persistently followed up will be a great financial gain to Canadian grape growers.

COPY OF LETTER FROM MESSRS. B. W. POTTER & CO.,  
MANCHESTER, ENGLAND, REGARDING CONSIGNMENT OF GRAPES.

Manchester, Dec. 2nd, 1899.

Sir:

We confirm our letter of the 27th ult., and now beg to report fully re grapes ex "Trader." The fruit sold in lots at an average price, taking the bad crates with the good ones, and as all the marks had faulty baskets, it was impossible to discriminate. If we had to choose the varieties we should say that Rogers' 15 and 44 carried the best. In some cases the baskets had been filled too full and the top bunches being crushed spoiled the look of all. The black variety would as a rule take the best, if in good condition. The cases should be marked plainly "Black, or Red, etc." We do not consider the paper over the top of the basket an improvement.

The fruit did not appear to deteriorate in our cold air stores (kept at 3 degrees above freezing point) and in the open air market two or three days did not hurt any of those in good condition to start with. Some shopkeepers say they do not keep in the shop, but we feel sure that if the grapes are emptied out of the baskets and any bruised ones cut off they will keep for some days and improve.

As we said in our last letter, the flavor suits some people, but others do not like it at all. The former, however, are quite numerous enough to make the sale, now they are known, quite easy at a price that would certainly rise as sellers gained confidence, and we think that even when other grapes are at their cheapest you could realise a paying price. Hawkers and shopkeepers who would only pay from a sovereign to thirty shillings a score crates last week had paid up to sixty

shillings this week. We sold quite a number of baskets to interested parties who called at our office at 1s. to 2s.

If we had reported to you during the first three days after arrival, we should have said the trial was an utter failure. We could not get a bid from shopkeepers or hawkers, and it really seemed as though we should have to give them away literally, especially as some of the crates were running. This state of affairs naturally made us anxious to get them off our hands, so when the barrowmen started bidding 20s. a score crates, we let them go and gradually worked up to 40s. At these prices they were thoroughly distributed all over the district. We kept back some fifty crates until this week just to test their keeping qualities and to see how the public took to those sold. They kept well and we made from 2s. 3d to 3s. per crate as mentioned above.

It is most unfortunate that the shipment was all crowded into one steamer and was so much delayed, as it now really looks as though a second lot would have paid the loss on the first. We enclose cuttings from various papers.

COPY OF PRESS NOTICES.

*Grocers' Review, Nov. 28th, 1899.*—"Success has attended the experimental shipment of grapes to Manchester. We have received a sample basket of the grapes, which the Ontario Government is introducing into this country, from Messrs. B. W. Potter & Co., produce brokers, 7 Corn Exchange Buildings, Manchester, and can testify to the excellence of the fruit."

*Manchester Guardian, Nov. 14th, 1899.*—"Messrs. B. W. Potter & Co., produce brokers of 7 Corn Exchange Building, Manchester, inform us that the Government is making use of the refrigerating chambers which are fitted on the steamers on Manchester-Canadian line to introduce fresh fruit, grown in Ontario, into this country. An experimental consignment of grapes has been shipped by the Manchester Trader, due in the canal next Saturday. Great care has been exercised in the choice of the suitable variety, and the grape chosen is a hybrid between the best European and American species. It is grown in two colors—red and black—and is said to be of a large size and rich flavour. The packing has received particular attention, and the fruit has been put up in small 'veneer' baskets with handles, each basket containing about 4 lbs. The result of the experiment will be watched with interest."

*Daily Mail, London, Nov. 28th, 1899.*—"There is every prospect of a cheap supply of grapes being put upon the English markets in future years during the autumn and winter months. Already the test shipments of these fruits, carried in refrigerated chambers, are on show at Manchester, and the trade expresses much satisfaction at the salable nature of the fruit. There can be no doubt that this great development of the Canadian fruit trade in the United Kingdom will do much to extend the demand for cheap late grapes, for hitherto the middle and working classes have had to depend upon the hard Spanish Almerias, which are sent into our ports packed in cork-dust in barrels

weighing from 50 lb. to 60 lb. gross. These are the well known green grapes, so popular with grocers and tried fruit traders. The Canadian supply will ensure ample quantities of luscious, aromatic grapes of far superior quality to the Almerias and at a reasonable price. These new grapes have already produced a bit of a sensation in fruit trade circles, for when arrangements have been completed the English markets will be kept well stocked with regular shipments of fresh grapes put in dainty little baskets, and thus render the storage of Almeria grapes by market men, to ensure supplies after Christmas unnecessary. The quality of the fruit is excellent, and it is highly satisfactory to know that Canada can send to this country all late cheap grapes we need. Although, as previously announced in the '*Daily Mail*,' the Canadian fruit exports will introduce the finest pears that are grown, yet the addition of late grapes by no means exhausts the list. Various other fruits are to be sent in time, and the French, Spanish and Dutch shippers will find many of their fruits displaced by the superior products despatched from Canada."

COPY OF LETTER FROM MR. PETER BYRNE, AGENT FOR ONTARIO AT LIVERPOOL, ENGLAND.

Liverpool, Dec. 1st, 1899.

Sir:

I visited Manchester a few days ago to make inquiry about your consignment of fruit. I learned from Mr. Potter that though the grapes had been seriously delayed in transit they arrived in very good order, with the exception of a small percentage which were somewhat damaged. Some of these I saw in Mr. Potter's office, which had been taken out of store that day. They were wet and to some extent affected with mould. Mr. Potter gave me some particulars of what he had done to effect a satisfactory sale and referred to the trade prejudices and other drawbacks he had met with. I learned that notices had appeared in the local papers drawing attention to the shipment, and a very good one appeared in the London "*Mail*" from its Manchester correspondent. I sent you a copy of this paper by last post. At the time of my visit all the grapes had been disposed of except fifty crates. The apples I understand turned out very well, except the "Snows," which had suffered some damage. Regarding the grapes, it appears to me that if steps were taken to give the public better opportunities of seeing and tasting them, they could not fail to sell promptly and well on their merits. I looked into all the fruit stores in several leading streets in Manchester expecting to see samples of your grapes, but in vain. I saw nothing in the shop windows half so tempting as your neat little baskets of grapes would be at the comparatively reasonable prices at which they could be sold. It has occurred to me in thinking over the matter that in future shipments a special arrangement should be made with one or more leading retail shops in the large cities to expose the grapes for sale in their shop windows, at the same time guaranteeing the owners against loss for a season or two until the fruit had won its way into public favor. In this way I am convinced that the prejudices of the fruit dealers would be

effectually overcome and a successful and permanent trade be eventually established on regular lines.

The shops selected should be of the best class with good show windows and situated in leading thoroughfares. This class of stores have at present hanging in their windows bunches of English hot-house grapes and foreign varieties at prices varying from 16 cents to 80 cents per pound. Your baskets would look cheap at say one shilling and six-pence, and I believe would go like hot cakes if they only got a fair chance to be seen and tasted by the public.

EXTRACT FROM H. M. GIBSON'S LETTER OF DECEMBER 2ND, AGENT MANCHESTER LINER AT MANCHESTER.

You will be glad to hear that Mr. Potter has been successful in disposing of all the grapes and apples sent to him per Manchester Trader. He had some trouble in getting the grapes off, but was energetic enough to see that they were placed amongst the coster carts and various small shops. With regular shipments I am convinced this trade will be most successful, and that the grapes will take well here.

## STORAGE OF APPLES IN WINTER.

**I**T IS a very stale but oft repeated advice, to spread out winter apples and pears on shelves in the cellar, and the decayed ones to be removed from time to time. We must wholly disagree with such a course, for when exposed, the apple rapidly loses its moisture and becomes shrivelled, which also causes deterioration of quality.

On this account apples and pears in cool storage should be kept tightly closed, and they will open up plump and fresh.

The great secret for keeping apples and pears is a cool temperature, and 35° to 40° F. will be found most satisfactory. Usually

apples are left to hang too long on the trees and become too much ripened; then they lie in piles or are stored in barrels in hot places, perhaps right out in the sunshine for weeks until the hot weather is over; then they are shut up in a warm, close, house cellar, with a temperature about 50°, and then the farmer wonders why his apples do not keep.

Let him try gathering them as soon as mature, pack them away at once in a cool place where the temperature does not rise above 40° and see whether the results are not much more satisfactory.

THE CANADIAN HORTICULTURAL ASSOCIATION met in Ottawa, Sept. 18-21. This is a trade organization, composed chiefly of professional florists, and therefore quite distinct from our own, which is composed chiefly of professional fruit growers and amateur florists, with a few professional florists and nurserymen.

Mr. James McKenna, of Montreal, is the new President elect, and A. H. Ewing, of Berlin, Secretary. It was decided to institute, if possible, a trade paper, to be called "The Canadian Gardeners' and Florists'

Exchange," and to be issued bi-weekly; size 10 x 12, and four pages.

Mr. McKenna is an ex-Alderman of Cote des Neiges, P. Q., and a partner of the firm of P. McKenna & Son.

THE TENTH ANNUAL CHRYSANTHEMUM show of the Toronto Gardeners' and Florists' Association was a grand success. It was held on the 15th to 18th. The quantity and quality of the exhibits were unprecedented, and the arrangements reflected great credit on the committee in charge.

## GRADING AND INSPECTION OF APPLES, ETC.



At the recent meeting of the Ontario Fruit Growers' Association held at Whitby, great indignation was stirred up among the fruit growers at the reports of fraudulent fruit-packing on the part of speculators who buy whole orchards and try by facing or by false grade marks or by using fictitious names, to secure for the poor fruit the prices of good fruit. An example of bad packing was placed on the table by Mr. T. H. P. Carpenter, of Winona, being samples of fruit from a barrel purchased by him, which was topped with large apples and filled in with ciders.

After considerable discussion, a general resolution was passed looking for inspection in order to prevent this crying evil for which the fruit growers are not responsible, but speculators who buy immense quantities and send out gangs of packers who are paid for their work at a contract price by the barrel.

A strong committee was appointed to deal with the whole question, and prepare details for a grading and inspection act for the consideration of the Dominion Minister of Agriculture. The following members of this committee met at the Lincoln House, Grimsby, on Friday, December 15th, 1899, viz., A. H. Pettit, E. D. Smith, Geo. E. Fisher, T. H. P. Carpenter, and the executive committee, viz., W. M. Orr, G. C. Caston and L. Woolverton. After careful consideration and much discussion, the following resolution was arrived at, which we believe will commend itself to our fruit growers generally:

*Resolved,* That both the Dominion and the Provincial Legislatures be asked to consider the advisability of legislation to carry out the following regulations for the sale of apples and pears,—

1. That all apples and pears packed for sale in closed packages shall have the minimum diameter of the fruit inside marked in plain figures on the top or face of the package, thus—2 inches,  $2\frac{1}{4}$  inches,  $2\frac{1}{2}$  inches, etc., as the case may be, and if more than ten per cent. run below the size specified, the package shall be considered fraudulently packed.

2. That all such packages shall also be stamped with certain grade marks which shall be defined as follows:

(a) X A No. 1. Sound apples or pears of uniformly large size and high color for the variety named, of normal form, at least 90 per cent. free from worm holes, scabs or other defects.

(b) A No. 1. Sound apples or pears of nearly uniform size and good color for the variety named, of normal form, at least 90 per cent. free from worm holes, scabs or other defects.

(c) No. 1. Sound apples or pears of fairly uniform size, at least 80 per cent. free from worm holes, scabs or other defects.

(d) No. 2. Apples or pears that are disqualified from being classed under any of the afore mentioned grades, but which are useful for culinary purposes, and not less than two inches in diameter.

3. That all apples or pears packed in closed packages be subject to inspection by the Government Inspector, and, in case of ten per cent. of the packages of any one grade being found fraudulently packed, the shipper be liable to a fine not exceeding 50 cents a barrel for all packages of that grade.

4. That provision be made for inspection not only at the ocean ports, but also at the request of the shippers, at local points of shipment in case of car lots.

5. That for local inspection a reasonable scale of charges be made of the shipper re-

questing it, gauged according to the number of carloads to be inspected.

6. That in such latter case, the inspector shall apply some distinctive inspection brand to show that the packages had been inspected and found honestly packed; but, if found

fraudulent, the inspector shall have power to forbid the shipment until properly packed and graded.

7. That in all cases the name of the packer and of the shipper shall be plainly stamped on the top of each package.

### THE MOYER GRAPE.

I HAVE recently seen some rather flattering reference regarding the good quality of Moyer grape which prompts me to give my experience with it. When it was first introduced I invested, and soon found that it was a slow grower with short, brown, hard wooded joints, which indicated the desired hardness. I watched for three or four years for those great red bunches of grapes, as good as Delaware, but instead I found the blossoms weak and defective, and although surrounded by strong, vigorous neighbors blooming about the same time, the fruit clusters were never more than *nubbins*. I have thrown them out, and will fill their place with Worden and Geneva next spring.

The Brighton improves with age and good company. It produces regularly fair clusters of the very best quality. Early in the season be-

fore fully ripe they are quite pleasant to the taste, but when fully ripe they are easily the best grape on the list for this section.

The Winchel is also a good amateur's white grape, it is sure to give a fair crop of fine fruit very early in the season.

I had the Mills from the Association some years ago. Although a little late in ripening for this district I had this year some grand bunches of beautiful grapes which were much admired at our local fall show; the vine was trained against the south side of a building, and the clusters bagged so that the vine had some protection from the early frost Moore's Diamond grows along side of Mills, and is so far a lamentable failure.

J. P. COCKBURN.

Gravenhurst, Muskoka.

REPORTS coming in recently of sales of our pears and peaches in Covent Garden Market are most encouraging. Duchess and Anjou pears are selling for \$2.00 per half bushel case, and even Kieffers have been bringing \$1.50. The Elberta peach is proving a grand export peach, as we anticipated it would be, bringing \$2.00 per half bushel case.

The following clipping from the Daily Mail, London, England, will be read with special interest:

"One of the latest wonders of the fruit trade is the departure that has been made by our colonial fruit producers.

"A few days ago a goodly parcel of Canadian peaches and pears was sold in Covent Garden Market by auction, with the most satisfactory results. The peaches were late Crawfords and Elbertas, and they were particularly good. But

the pears were exceptionally fine, and they made as high as 6s. 6d. per small case.

"As the result of this sale it is clear that the Californian fruit-growers will have to look to their laurels. Canadian pears, such as the prime Anjou (the variety which made the price quoted) are of finer quality than those sent from California. The fruit reaches us in better condition, is more aromatic and juicy, and is perfectly adapted for the English fruit trade.

"The shipment was sent out under the auspices of Professor Robertson, of Ottawa, who is specially responsible for the trial shipments which have lately been sent over in small fancy packages, and there is no doubt that in future seasons Canadian pears will secure the patronage of the best buyers in the trade.

"The representative of Professor Robertson, who is now in this country, informed us that they have now obtained the right temperature to keep the fruit in perfect condition while on board the fruit boats, so that nothing stands in the way of large and regular shipments of Canadian peaches and pears during the autumn months. Millions of both kinds of fruits are promised the trade for next year.



## OUR HIGH GRADE FRUIT IN ENGLISH MARKETS.

Now that such earnest attempts are being made to place our very finest fruits in first-class condition on the English markets, it is encouraging to read such testimony as the subjoined, which was addressed to Prof. Robertson.

To Professor JAMES W. ROBERTSON, Commissioner of Agriculture, Ottawa, Canada:

SIR,—I duly received the sample cases of Canadian apples and pears, and a box of peaches which you sent me, and as your representative for the distribution of the fruit in this country informed me that you would be pleased to have my opinion on same, I herewith send you a report which is disinterested, and can therefore be depended upon with the utmost confidence. I am in a position to speak authoritatively upon this subject, as an expert from a market point of view, being the only fruit trade journalist who has, for just upon a quarter of a century, made choice fruit production, packing, and distribution a special study, that is, in the United Kingdom.

## APPLES.

The apples were Snows, and when opened, the fruits were found to be in prime condition. Not one was unsound. They were wrapped separately in paper, and had been packed in layers and in rows. A better style for good fruit could not possibly be conceived. The fruits were medium in size. Possibly we want a larger sample on our markets, though the quality was excellent, and I was very much struck with them altogether. The package was rather small for apples. When the parcel came to hand, there was a large supply of ordinarily grown English apples on the market, and this would tend to affect prices. Still, for a large circle of buyers, the small package should form a good attraction. Large quantities of such fine eating apples, packed in these handy boxes, would secure a free sale directly their quality became known to the general public. I mean in the original package. I do not feel inclined to say absolutely that a bushel box would be better, but perhaps both sizes would prove advantageous to the trade generally.

## PEARS.

Then as to the pears. They had been put up in the same size of box as the apples, and each fruit had been wrapped in a small square of paper. They were absolutely sound and in grand condition. I kept some of these pears for two weeks, and when fully ripe the flavor was delicious. They were Beurre d'Anjou. From these samples it is clear that Canadian exporters can easily put

high quality pears upon the English markets, and at the right time, too. I am satisfied that for quality, size, clearness of skin, and condition, that they will readily compare with the best Californian and French fruit. A better pear than these Anjou never entered the English markets, and I am confident that a big future lies before the Canadian pear trade in the United Kingdom. I was immensely pleased with these fruits and the prices realized, justifies the commendation I give them. With care in grading they would prove a very serious competitor to the French fruits, as the sample cases under notice were put up in better style, and the fruits were certainly cleaner skinned, and much more dainty as eaters, than the foreign ones referred to.

## PEACHES.

Then as to the peaches. These were Elberta. The fruits had been partly covered with paper in which a strip of wadding had been included, so as to protect the fruits from bruising. Under this method, when the lid of the box was taken off, and the layer of wadding removed, the tops of the fruits would be exposed to the view of the buyers. Here the specimens were in fairly good condition, but not what could be termed perfect, the flesh of some being a little discoloured. All in the box I had were, however, eatable, of excellent size, and like the apples and pears, had been well and evenly graded, an important feature in the fruit trade here. The color was good, but the flesh was too fit, if I may expressively put it thus, that is, they needed to be sold in a day or two at least, not being in keeping condition. They were not so juicy as our forced peaches, but the flesh was firmer, and as an advocate of fruit-eating, I claim that these Canadian Elberta peaches are magnificent, and I should like to be able to live on them without anything else for a month. They are very delicious, possess a nutritious flesh, and should prove a great boon to the consumers in all of our cities and towns.

## COMMENTS.

My report will be found most encouraging to those on your side who have taken a great interest in the development of the Canadian fruit industry, though the praise given to the packages and their contents is due to merit, and well-deserved. The Canadian fruit growers are to be congratulated upon having the fruit export trade, including packing, shipment and distribution, dealt with in such an admirable manner by the officials of the Department of Agriculture at Ottawa. It is my decided opinion that at present the Canadian fruit exports are better put up and more efficiently handled than those from any other colony shipping to the United Kingdom, including Tasmania.

SAMPSON MORGAN.



### INDIVIDUAL FLOWER VASE.

**T**HIS handy trifle has proved very useful to us in decorative work. We have it made in two sizes; the larger, shown in the illustration, is one-half inch in diameter and four inches in length, the smaller being three-eighths of an inch in width and three or four inches long. The rubber cap fits tightly and seals the vase effectively, no matter in what position it is placed when in use. In the centre of the cap is a small hole that will scarcely admit an ordinary pin without expanding, yet by a slight pressure any flower with a woody or stiff stem can be introduced, the rubber holding it in place. The vases are filled and the rubber caps fitted under the surface of the water, where they slip on very easily. The flower is then very readily pushed in, after which they are as one piece.

By the use of this vase the flowers were kept fresh from six to eight hours in a warm room. The vases do not show to any extent, the foliage of the roses covering them.

For dinner table arrangements, where the blossoms are sprayed on the cloth, the narrow, clear glass vases are easily hidden by the foliage of the flowers or accompany-

ing greens, and the fresh beauty of the decorations lasts throughout the entertainment.

For garnishing a bank of green or for use over doorways or arches in lofty rooms,

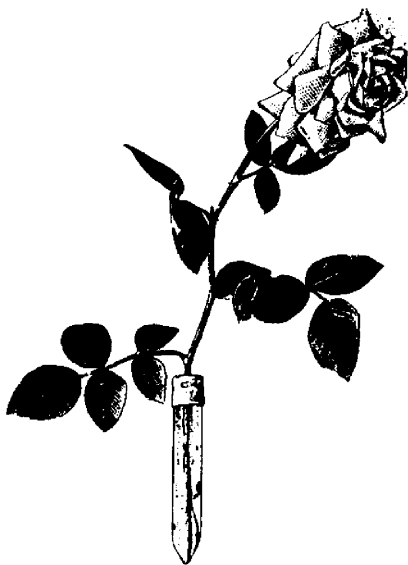


FIG. 1730. INDIVIDUAL FLOWER VASE.

where the heat causes flowers to wilt rapidly, the vases will be found to be invaluable, also in certain decorations of light greens, anywhere in fact where flowers are

used separately they add hours to their life and beauty.

The device will be found useful, as well, in mantel and basket work, as they are readily placed in soft soil and the moss of baskets. We find that a vase without a cap, holding four or five sprays of lily of the valley or other flowers adds considerably to a plant basket when it is inconvenient to disturb it to crowd in something with roots.

The spray of flowers on the handle also lasts much longer when the vases are used. A rubber cap with a larger opening readily admits and holds orchids, such as cattleyas, and other soft and thick-stemmed flowers. For a window display with curtains of asparagus or on tree stumps and branches, they hold and keep the flower better than it can be kept in any other way.—*American Florist.*

### JAPANESE ZEBRA GRASS.



FIG. 1731. ZEBRA GRASS.

**I**N our garden the hardy ornamental grasses have always been favorites. But among our collection of these, comprising many sorts, there is no other one kind which gives better—we were about to say gives equal—satisfaction, to the Japanese Zebra Grass, *Eulalia japonica zebrina*.

The accompanying engraving affords a very good representation of the plant we are speaking of. Unlike all other variegated grasses, this one has its striping or marking across the leaf,

instead of longitudinally. It grows five or more feet in height, forming a most striking and graceful plant, resembling nothing else that we know of in cultivation. The expanded flower spikes resemble the ostrich plumes, and when dried, last for years.

This variegated Grass we find useful in many ways. In the mixed border amongst herbaceous plants it is a pleasing and striking object, and in a cut state for the decoration of large vases it is most valuable, as its graceful arching leaves gives a degree of brightness to floral arrangements not otherwise obtainable. The variegation, too, is clear and well defined, a circumstance which adds to its beauty. It is a great gain to be able to cut spikes of it four feet high for indoor decoration.

When first introduced from Japan it was believed that this plant would not prove hardy. Years of cultivation with it as far north as Buffalo proves it to be entirely so, and we are able to cut from it in the open borders up to the end of November.

Any soil not too rich suits it; in rather dry poor material we find that the variegation is more clear and defined. We have grown it in pots the year around, and find that it makes a capital plant for mixing with Ferns and other fine foliaged plants in the conservatory.

This very desirable plant may now be had of all dealers in hardy plants. It can also be raised from seed, packets of which can be bought for about twenty cents each.—*Popular Gardening*

TUBEROSES EASILY GROWN.

IF to be grown in the open, start the bulbs in pots in March. Use small pots, one bulb in each, planting so the crown will be a little above the surface of the soil. Set in a warm place; keep the earth moist but not wet. When the bulbs show growth, give a cooler location, as rapid growth tends to weaken the plants.

Give fresh air freely, but do not allow any chills, as the tuberose is very delicate and tender. Set the pots out of doors for a time on mild, sunny days. Never give more water than is necessary to keep the soil moist. If kept too wet there will be few if any blossoms. About the first of June transplant to a sunny spot in the garden, where there is a good soil which has been freely fertilized with well decayed cow manure. To secure fine blossoms the soil must be rich and mellow. When the flower stalks appear tie to a strong support with a narrow strip of soft cloth, for wind, rain and sometimes their own weight will cause them to break. Should the nights grow cool before they flower, cover with newspapers, which are light and a perfect protection.

If for house growth, set the bulbs in May, for succession of bloom, from April to June, at intervals of from two to three weeks. Fill six-inch pots with one part each of sand, leaf mould, old

cow manure and good garden soil. Treat as directed above, sheltering from the intense rays of the sun and keeping in mind the caution regarding watering too freely. The pots may be kept on a sheltered piazza if preferred. Water about once a week with liquid manure. Should the green aphid appear spray with soapsuds or a very weak solution of carbolic acid. The tuberose is a charming plant, with flowers of waxen white and subtle, delicate, though heavy perfume.—*American Agriculturist*.

THE AURATUM, or the Gold Banded Lily of Japan, is one of the most magnificent lilies that is grown in the garden. It is hardy in dry soils but rots much more easily than other sorts in damp soils. The leaves are long and pointed, and the stems are very slender but strong and wiry. The flowers are very large, the petals being of the purest snowy whiteness, thickly spotted with chocolate crimson spots. It sheds a most delightful fragrance, which is a blending of vanilla, nutmeg and it would seem of all the sweet perfumes known. These bulbs are seldom ever sent out before November. From several bulbs I have had flowers for about one month, each stalk blooming at a different time.—*American Florist*.

ABUTILONS.

**P**ENDANT flowers are always admired, as there is a charm about them; and the Abutilon is one of the most serviceable for window gardening. The erect, stately form of some kind, and the graceful flexibility of others, linked with clean and clear cut foliage renders them always charming.

Among the old sorts, for years my favorites, were the Thomsonii, with its orange flowers; Boule de Neige, white, and Lantana, crimson. A. Megapotamicum variegatum is so slender

and flexible, I always grew it with Boule de Neige in preference to any other support, and the result is charming, this being such a profuse bloomer.

The new sorts are so handsome and varied one scarcely is able to say which to choose. The Lavitzii is of dwarf habit; and of great value in the garden and house. Souvenir de Bonn, with its variegated leaves and orange flowers, should be in every collection.

Eclipse, a semi-drooping spotted leaf; and Erecta, a bright pink of outstanding flowers;

May Miller, a deep rose; Thomsoni plena, with golden spotted leaves; Lanata, deep red flowers; with Darwinii in bright orange, veined with red, make a fine collection and not expensive.

They have few superiors as balcony and garden plants; are continuously in bloom; and with the exception of the geranium there is no class of plants that has been more improved by cross fertilization. It requires much sunlight to grow to perfection the variegated sorts, and if this is not abundant, choose, by all means, the plain leaf. The running or trailing Megapotamicum variety, of bright red, yellow and brown centre, makes a nice border next a row of Darwinii, and then a line of Lantana, and, is possible, a centre of the golden spotted Thomsonii plena.

A bed of two or three dozen of these flowers, arranged tastily, is one of the handsomest found in a large and expensive garden; and from one plant each we can grow as many as we wish.

Some are slower in growth than others, therefore the Darwinii should come next the border. Cutting back is a blessing to them truly, so do not fail to trim well.

They harmonize finely with Crotons, Dracenas, Ferns, Palms and kindred plants, and well grown are a joy forever. A cool rather than warm location suits them best, yet not too cool.

Too much heat is inducive of red spider, and gives them a straggling appearance. Shower them upper and under frequently, and if done with regularity, the spider will not trouble them.

If pots are plunged in the ground, take the greatest care the roots do not come through the bottom of the pot. To avoid this set the pot on a flat stone, or cork them. Set in pots they are quite as thrifty and require less labor, and the growth is more compact.

In the country, never more than one or two of these modest and attractive flowers are usually seen in the house, but an assortment will give as much pleasure as a fine bed of pansies do in summer, and both prefer a somewhat sheltered place. At the closing day of my life, I find the love of flowers increasing instead of diminishing, and the need of a small conservatory more pressing since I have lost every treasure I possessed in this line by the blasts of winter.

M. AGATHA HOSKINS.

Newport, Vermont.

CAULIFLOWERS THAT WERE PROFITABLE.—A noticeable exhibit at the Hamilton Society's Flower Show on the 8th and 9th of November, was some immense heads of cauliflower sent in by Mr. H. H. Hurd, of Burlington. From 2¼ acres Mr. Hurd gathered 14 tons of cauliflowers, and the cash proceeds were \$600!

## Our Book Table.

CATALOGUES.—Herb and Wulle, seed and bulb growers, Naples, Italy. General catalogue of seeds.

STRAWBERRY CATALOGUE and price list: Charles H. Snow, Cummings Bridge, Ont., for spring 1900. In addition to the standard varieties, Mr. Snow advertises a new berry called Snow's Perfection.

ORNAMENTAL SHRUBS for garden, lawn and park planting, with an account of the origin, capabilities and adaptation of the numerous species and varieties, native and foreign, and especially of the new and rare sorts suited to cultivation in the United States, by Lucius D. Davis; fully illustrated, published by G. P. Putnam's Sons, New York and London, 1899.

This book of 338 pages embellished with over 100 illustrations in one of the most comprehensive and valuable yet published on the subject of

shrubs. It is addressed to both scientific men and those who while lovers of plants have no knowledge of plants. It is handsomely bound and printed in large type on good paper. We are sure all garden lovers will be interested in it.

HOW TO PLAN THE HOME GROUNDS by S. Parsons, Jr., ex-superintendent of parks, New York city, with illustrations by W. E. Spader, published by Doubleday & McClure, New York, 1899.

The author of that charming work "Landscape Gardening" has again given the public another valuable work on horticulture, less expensive, and if anything more practical than its predecessor. It sets forth the simple basic principles whereby the home grounds may be made beautiful. In the short space of 250 pages all the elements of landscape art seem to be treated of and dealt with by the hand of a master.



## The Canadian Horticulturist

**SUBSCRIPTION PRICE**, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees.

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**LOCAL NEWS**.—Correspondents will greatly oblige by sending to the Editor early intelligence of local events or doings of Horticultural Societies likely to be of interest to our readers, or of any matters which it is desirable to bring under the notice of Horticulturists.

**ILLUSTRATIONS**.—The Editor will thankfully receive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, etc.; but he cannot be responsible for loss or injury.

**NEWSPAPERS**.—Correspondents sending newspapers should be careful to mark the paragraphs they wish the Editor to see.

**DISCONTINUANCES**.—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrearages must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post-Office address is given. Societies should send in their revised lists in January, if possible, otherwise we take it for granted that all will continue members.

### NOTES AND COMMENTS.

**COLD STORAGE**.—A magazine devoted to Cold Storage, published monthly in New York, contains Prof. Robertson's details for construction of cold storage house in December number.

**LIQUID AIR** promises soon to be commercial product, purchasable by the gallon or by the barrel! A splendid plant for its manufacture has been built in New York City, with a capacity of about 800 gallons a day.

**FLORISTS AND AGRICULTURAL SHOWS**—We find the professional florist slow to exhibit at our amateur shows. If there is a long list of money prizes he will come to carry them away, but as for showing with a view of educating the public in the culture and growth of flowers for itself he is not in favor of it. Now we think he is making a serious mistake, for the more interest the ordinary housekeeper takes in window plants the greater the demand for the products

of the professional. Sanders, addressing the Chicago Florist's Club, said :

If my assertion is correct, that shows are an educator of the masses to love flowers, they should be encouraged in every way by those making a living from the sale of all agricultural products, which you see takes in all kinds, from state and county fairs, exhibits at horticultural and florists' societies' monthly meetings, up to the grand yearly fall show of flowers. Suppose for a moment, in your estimation, a good many of the exhibits are rather tame affairs. Do your share to improve them. Surely none will dispute, if a flower show, in whatever form encourages a taste for flowers, and causes more to be used, the grower can have no kick coming. Has it not been a fact at every one of our fall shows, prices for all good stock rise during that week, however dull the trade has been before. This being so we opine the wholesale man is equally benefited, as he gets bigger commission by the booming of his trade.

**THE SAN JOSE SCALE** was the chief subject up for discussion at a meeting of the Niagara Peninsula Fruit Growers at St. Catharines on the 15th of December. A previous meeting had met and adjourned without reaching any

agreement regarding the methods of routing the pest. A large number of prominent growers were present on the occasion, some of whom were bitterly opposed to the act recently passed for the destruction of the insect. After considerable discussion of a report by a committee, a resolution, modeled after that passed at our Whitby meeting, was considered and passed after a warm debate. The resolution approves of the efforts of the department to stamp out the pest; asks for a continuance of inspection; the destruction of all badly infested trees; and in case of trees being slightly infested that the owner have a choice between their destruction or having them treated under the direction of

an inspector on condition of bearing a share of the expense of such treatment; that all nursery stock be fumigated previous to sale, under the eye of an inspector. One clause was added that was not included in the Whitby resolution, viz., that the owner have a voice in estimating the value of his trees destroyed. This latter provision would surely cause endless disputes and litigation. We think it far wiser that a reasonable basis be established, and then let the application to each individual case be settled by the inspector. Badly infested trees are of no real value anyway, and the privilege of treating trees slightly infested is surely a provision that should satisfy everyone.

## THE TEMPERATURE FOR HOUSE PLANTS.

ON cold nights when there is a liability that the temperature will fall below the danger point, it is well to spread newspapers in the window and draw shades so as to prevent as much as possible the loss of heat. The plants themselves should be covered with papers, or if possible should be removed from close proximity to the windows. If placed in the centre of the room, preferably upon tables, or at least well above the floor, they will often escape injury, while similar plants remaining in the window would be frosted and perhaps killed by cold.

As a rule, plants do best at a temperature 10 or 15 degrees colder than they need during the day, and most of the species commonly used as house plants do no need over 50 or 60 degrees at night and will not suffer if the temper-

ature falls as low as 40 degrees, although if such a low temperature be continued for several days it will check the growing of most plants. In case plants have been frozen they should be slowly thawed out. While it will perhaps be impossible to save the foliage of tender tropical plants, the plants themselves, as well as the foliage of the hardier ones, can often be saved. They should be removed from the direct rays of the sun and kept at a temperature of 35 to 40 degrees until they have thawed, when it may be gradually raised. Cold water can also be used to advantage in thawing them out, but the temperature should be kept as low as 35 degrees as long as frost remains in the plant. Water used at 50 to 60 degrees will generally do more harm than to allow the plants to thaw out themselves.

—*American Agriculturist.*



THE MEALY BUG.—What is known as the Mealy bug is a flat, tender, yellowish insect, of the form shown in the engraving, and is covered with a white mealy substance, from which the common name is derived. It is especially

troublesome to Coleus, and many soft-wooded plants. With a little care it is not difficult to eradicate. Remove and destroy all that may be found, then syringe the plant two or three times a week with soapsuds to which has been added a little kerosene, say two tablespoonfuls to a gallon of suds.

## Our Affiliated Societies.

HAMILTON.—The Hamilton Horticultural Society held its fall exhibition on Wednesday and Thursday, November 8th and 9th, in the new hall, over Oak Hall clothing store. The display made by amateurs was much better than in 1898, and will probably result in a still greater increase in this class of exhibitors at future shows as the members are learning what they have to compete against and many who have hesitated about bringing out really good specimens will not be deterred by the fear of being totally eclipsed.

Mr. Goodall, gardener, Asylum for Insane, and Mr. W. Hunt, gardener for Mrs. John Stuart, Inglewood, made very fine displays of auracarias, palms and other decorative plants "not for competition." The Asylum exhibit of chrysanthemum bloom was especially prominent in the cut flower department. Commercial florists were less numerous than in the preceding autumn, E. G. Brown and Walter Holt being the only exhibitors. Mr. Holt erected a large and beautiful bank of flowering and decorative plants in the centre of the hall. In addition to cut blooms the Messrs. Brown exhibited several flowering specimens of the lately advertised chenille plant, *Acalypha Sanderii*.

Mr. Ogilvie's display of cosmos, sweet peas, gaillardias and other open air annuals would have surprised some of the horticultural journalists across the border who write at long range about the coldness of the Canadian climate.

Mr. Hurd's cauliflowers, averaging about 12 pounds each, were part of a crop of 14 $\frac{1}{2}$  tons taken off two acres of land.

Mr. W. Hunt, who filled the somewhat trying position of judge, made the following awards:

## AMATEURS—HOUSE PLANTS.

- Three plants in flower—R. Grice.
- Specimen plant, any kind—1st, Miss Steele; 2nd, H. Bradt; 3rd, Mrs. W. T. Elliott.
- Two Begonias—1st, Mrs. Caffery; 2nd, H. A. Eager.

## AMATEUR—GREENHOUSE PLANTS.

- Four plants in flower—A. Alexander.
- Three palms—J. O. McCullough.
- Six Chrysanthemums, various and named—A. Alexander.
- Display of cut bloom—J. O. McCullough.

## PROFESSIONALS.

- Ten Chrysanthemums, various and named—1st, S. Aylett; 2nd, W. Holt.
- Ten Chrysanthemums, single stemmed—S. Aylett.
- Twelve Cut Chrysanthemums, six varieties—1st, E. G. Brown; 2nd, S. Aylett.

Carnation Bloom—1st, E. G. Brown; 2nd, W. Holt.

New or Rare Plants in Flower—E. G. Brown.

## FRUIT.

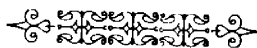
Collection of Grapes grown in open air—1st, J. Gardiner; 2nd, Rev. A. McLaren.

Collection of Apples—W. Wilson.

Collection of Pears—1st, Rev. A. McLaren; 2nd, W. Wilson.

Collection of Cauliflowers—W. Hurd.

LONDON.—The *Advertiser* gives the following notice of a new Horticultural Society that has just been formed in that city: It seems an anomaly that a city so distinguished as London is for the beauty of its tree-lined streets and the lawns and gardens of its residents should be destitute of any organization for the encouragement of flower cultivation. It is satisfactory to know that this condition of things is about to be remedied by the formation of an horticultural society in affiliation with the Fruit-Growers Association of Ontario, and in accordance with the act of the legislature of 1895, authorizing the formation of such societies, and prescribing the regulations by which they are to be governed. At a recent meeting of the Entomological Society the subject was brought forward by Mr. Beall, a delegate sent for the purpose, and a small committee was formed to canvas for members and to arrange for organization if successful. It consisted of Mr. J. A. Balkwill, Rev. Dr. Bethune, Mr. J. H. Bowman and Mr. W. E. Saunders. The act requires that their should be at least fifty members, subscribing \$1 each, and the names had to be obtained by Thursday, 21st, and sent in to the Department of Agriculture. With the assistance of Mr. J. Paine, the committee were entirely successful, and had procured no less than 73 names by that afternoon, and others have been obtained since. By the terms of the act the first meeting for the election of officers and the organization of the society must be held at 7.30 p. m. on Wednesday, Jan. 10. The lecture-room in the Y. M. C. A. building has been secured, and it is hoped that there will be a large attendance. Each member receives the illustrated monthly magazine, the Canadian Horticulturist, and a share in the semi-annual distributions of bulbs and plants. It is proposed to hold a series of flower shows during the summer, and occasional public meetings, at which addresses will be given on suitable subjects. Anyone wishing to join should apply to any of the above-named gentlemen, who will gladly give all necessary information.





## QUESTION DRAWER.

## Grafting Grape Vines.

SIR,—I have an old and very vigorous Isabella grape vine which, owing to the shortness of our seasons, rarely ripens its fruit.

Can another and earlier variety of grape be grafted into the vine? If so, kindly explain how this can best be done.

GEO. THOMSON.

Wolfville, N. S.

The Isabella is an old variety which ripens late, and even in the Niagara district is often caught with frost before it is ripe. If our correspondent would graft his vines with Worden for black, Lady for white and Lindley for red he would get better matured fruit. We quote from a previous number of our journal giving instructions on grafting the grape.

Grafting grape vines is quite essential in vineyards where old or worthless varieties have by accident been raised. In a very short time the worthless vines can be made to produce an abundance of superior grapes. Grafting yields many other results that must be considered by every owner of vines. In testing new varieties of grapes the easiest and quickest way to do it is to graft them on the old vines. The new scions can be made to fruit the first year, and by the second year a good crop can be obtained. Many varieties that cannot be produced very readily from cuttings, will grow rapidly and successfully when grafted on to old vines. When properly performed the grafter's art can be made to increase the fruitfulness of the vines. Finally, and not the least important of all the benefits derived from grafting, this has been found to be the only successful way of fighting the phylloxera in California.

The method of grafting grape vines should be about the same in all localities, but the time of year best suited for the work naturally differ. Usually the spring of the year, from the first of April to the first of May, is the most suitable period for this work. The sap of the vines

should be in rapid motion at the grafting so that the union will be made at once. The best wood of last season's growth should be selected for the scions. The cuttings should be selected early in the season, and then be buried in bundles until needed for grafting. Frost will injure them, and they should be perfectly free from all exposure to it. The scions should be about the size of a lead pencil, short-jointed, firm and of well-ripened wood.

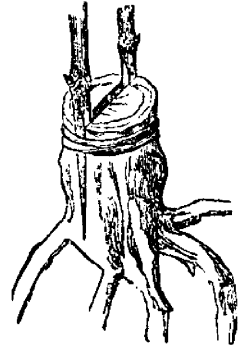


FIG. 1732  
GRAFTED VINE.

The grafting is usually done at or near the surface where the vigor of the old vines is the greatest. Cut the stock off square at about one inch and a half above the joint, or half way between two joints. If the stock is a large one make a slight split in it with the knife or chisel, press a wedge down to pry it open, and then insert a scion on each side. The scions must also be cut to a sloping point just below an eye. Push the scions down firmly, but be sure to make the bark of the scion and stock meet. When the wedge is withdrawn the bark of the two should meet firmly together, and if they do not the grafting is not a success.

If the grafting is properly done, and the union made perfect, no bandaging is necessary. This is only an excuse to cover up poor workmanship. Some light earth should be pressed firmly into the split, and all around where there is any opening. This dry earth will prevent the graft from drying out. If there is any doubt about the work, a bandage of cloth and dirt after the old style can be wound around the graft. To make graftings more successful, it is well to cultivate the stocks carefully before so that a vigorous growth will be had at the time of grafting. The scions should also be strong, well-selected

twigs, taken only from good stock that will produce a thrifty growth.

#### Pear Trees Not Bearing Fruit.

SIR,—I have two pear trees, a Sheldon and a Beurre Hardy, which are in a thriving condition only the fruit does not come to perfection. It comes to about quarter size and then stops growth. I have other trees beside them which do all right. I have been advised to take away the earth about the trunk and put in about two bushels of hard wood ashes.

JAS. WEIR, 243 Emerald St., Hamilton.

A definite answer cannot be given without seeing the trees. Generally speaking small sized and knotted fruit grows on trees that are somewhat stunted in growth, and any treatment that would tend to restore vigor should correct the evil. We would advise a severe cutting back, a thorough cultivation of the soil five or six feet every way from the trunks and digging in it good rotten stable manure. Fresh hard wood ashes applied in contact with the trunk would be injurious; if applied, it should be sown over the surface of the ground.

#### Latania (Palm) Failing.

SIR,—I have a palm that I prize very highly, and very much fear I am going to lose. The leaves seem to dry and wither. I found a few earth worms in the soil. It is a Latania Borbonica, about eight years old. Any directions for its restoration to health will be thankfully received.

G. PARKER, Stirling.

From the particulars given of the condition of the Palm, Latania Borbonica, referred to in the above question, I should suppose that imperfect drainage or sour soil is probably the cause of the trouble, as either coal gas or excessive dryness of the roots, unless of a very severe nature, would not cause the whole of the leaves to dry and wither as described. The fact of wire worms being found in the soil also indicates imperfect drainage, and consequently there is no root action to sustain growth.

I would advise repotting the plant at once into a pot one, or perhaps two sizes smaller than the plant is in at present, the size of the pot must depend on the amount of healthy roots the plant has; before repotting shake all the old soil

away from the roots, and cut away dead or any badly withered foliage, as well as all rotten or decayed roots, and repot into a compost made up of two parts of well rotted loamy sod, well mixed with one part of clean rinse sand, or better still, lake sand, and one part of well rotted leaf soil; use plenty of drainage at the bottom of the pot, pieces of broken flower pots being best for that purpose, over this put some pieces of coarse fibry around the roots; when potting press the soil firmly around the roots and give sufficient water to well moisten all the soil in the pot. Water must be given sparingly afterwards, until root action has well commenced, and only give water then when the soil appears dry on the top; when water is given, give sufficient water to well moisten all the soil, but don't keep the soil saturated all the time, as over watering is quite as injurious as insufficient watering, especially when there is very little root action to absorb the excess of moisture.

WM. HUNT, Hamilton.

#### Brugmansia Arborea.

SIR,—Will you kindly tell me how to grow Brugmansia arborea? I received a fine plant from Steele, Briggs Co. last spring, but since then it done no good. It puts out new leaves but they turn yellow and drop off, and the stock does not seem to grow. It is in good rich soil now.

P. S. HUSBAND, Oakville.

Brugmansia arborea belongs to the shrubby class of Brugmansias or Daturas; they are easily propagated from the young growth in spring or early summer. Cuttings of young growth with a small thin piece of the old wood attached to the base of the cutting (called a heel), are best if obtainable, these root readily if inserted about two inches deep in sand, three or four cuttings in a four inch pot, and kept in a window or hot bed, in a temperature of about 65°, keeping them shaded from hot sun for a few days. When rooted they can be potted singly into four inch pots in loamy soil with a good mixture of sand and leaf soil added; they will require liberal treatment during the summer, repotting them into pots fully two sizes larger each time, a good rich loamy soil, without sand or leaf soil, will suit them at this stage. When the plants

have attained a height necessary to form a plant of the height required, say two feet, the top can be pinched out which causes the plant to branch out and form a shapely plant. Plenty of water and a little liquid manure while growing in summer will help the plants considerably. Water can be gradually withheld in the autumn when the leaves show signs of decay, when the plants can be placed in a cool dry place, in a temperature of about 45°; very little, if any, water being required during the winter. In the spring the plants can be taken out, and some old earth taken from among the roots, repotted into the same, or perhaps a larger sized pot, as these plants require plenty of root room, a twelve inch pot or a small tub being none too large for a good healthy specimen; after repotting, water well once, introduce the plant into a higher temperature, and when established give plenty of water as before recommended. The plants will benefit if the young growth is pruned back in the fall, when the plants are dormant, to within a few buds of the older growth.

WM. HUNT, Hamilton.

#### Glen's Arborine.

SIR,—In the interests of fruit growers about here, I want to know whether Glen's Arborine is better than a mixture of soft soap and washing soda to prevent the round headed borer entering the trunk of trees? Also will it prevent sun scald, a trouble very common here? A great many agents are about selling this article.

W. J. WILSON, Castleton, Ont.

Glen's "Arborine" has never come under our notice. As I am not aware of its composition, it is impossible to give an opinion as to its relative efficacy compared with the mixture of soft soap and washing soda you refer to. If you can send me any particulars respecting this material, it might be possible to give you information on this subject. I might add that the substance sold under such and similar trade names can scarcely be more effective than the mixtures made from the authorized formulæ, and are frequently if not always to be found more expensive.

FRANK K. SHUTT.

Chemist, Experimental Farms, Ottawa.

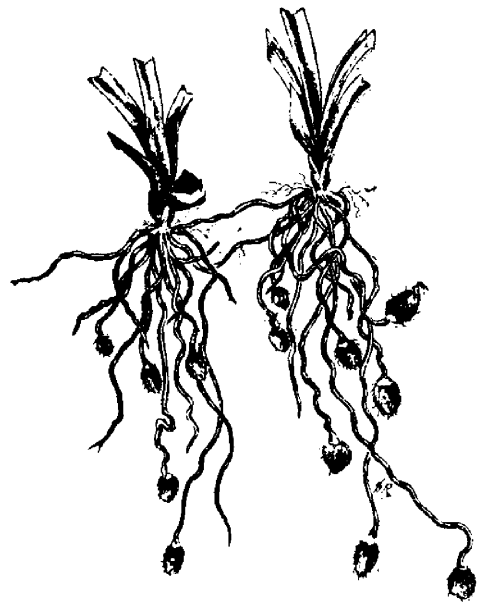
#### Nut Grass.

SIR,—Please inform me the best way to get rid of nut grass, and oblige

A. E. PARK, Cornwall.

#### Nut Grass (*Cyperus Esculentus*.)

In the common name of this plant we have a misnomer which is somewhat misleading and confusing. It would lead us to infer that this plant was a grass whereas, as can be seen from the botanical name, it really is a sedge. Its genuine name *Cyperus*, has some reference to Venus, the goddess of love. This form is not identical with the "Nut Grass" of the Southern



Nut-grass. showing the tubers.

FIG. 1733.

States, *Cyperus rotundus*, which is widely distributed throughout Europe and has been introduced to the various parts probably through ballast. Nut grass is usually found in low wet areas, and upon underdraining these lands, for the purpose of bringing them under cultivation, great difficulty is frequently experienced in eradicating it. Propagation is effected chiefly by means of underground stems, which bear numerous tubers about half-inch in length. These send up stems to the surface.

Any mode of eradication which will prove effective in the case of Canada thistle or twitch grass will prove valuable in getting rid of this pest. The underground tubers must be starved out. If so desired hoed crops might be grown, but in such cases the cultivation should be so thorough as not to allow any of the plants to show above the surface.



FIG. 1734. NUT GRASS.

The following treatment is recommended: Apply a heavy coating of manure and drill in rape. Cultivate the rape thoroughly. Rib the land up in the fall as the exposure to the frost will greatly assist in riddling a field of this pest. The rape makes excellent pasture and will assist in smothering the nut grass. Hogs are fond of the tubers. PROF. DOHERTY, O.A.C., Guelph.

#### Crab Claw Cactus.

Please give the botanical name of the Crab Cactus or Lobster Cactus, and also the name of the Cactus on which it should be grafted for best success.  
H. C. NORWICH.

The botanical name of Crab's Claw Cactus is *Epiphyllum*, and the principal variety is *Epiphyllum truncatum*. They are easily grafted on stems of *Cereus Columbrinus* about two feet high. *Periskia* stock is also used with great success. Either stock may be purchased at about 20 cents each.

#### Cuttings for Top Grafting.

SIR.—I have bought a few Wealthy apple trees to arrive in spring. I shall cut them back before planting and I want to know if I can use the cuttings to top graft other trees. I will also plant strawberries, raspberries, black and red currants and gooseberries, all for market. What would you advise me to plant?

Yes, the scions cut from the mature portions of last summer's growth will be excellent for top grafting other trees. As to varieties of strawberries, there are so many new ones every year it is difficult to advise. The writer thinks very highly of Clyde, Woolverton, Saunders and Haverland. Of raspberries, we plant at Maplehurst only Cuthbert and Marlboro for market; of black currants, Lee's Prolific, and Saunders; of red currants, Cherry and Fay. For a full description of these fruits see *Fruits of Ontario* for 1898.

#### Cherries.

SIR.—I would be obliged for a list of cherries for profit. I want to plant about 175 and have now 50 Richmond and Montmorency. My soil is clay loam, well drained, and situation favorable for early ripening.  
A. H. WANE, Beamsville.

In a section where the sweet cherries grow it is well to plant with a view to covering the season with a few choice varieties. A good list for this purpose would be Early Purple, Governor Wood, Cleveland, Elton, Black Tartarian, Knight's Early Black, Napoleon Bigarreau, Mezel, Elkhorn and Windsor. These are named in order of ripening. Of the sour cherries a good list is May Duke, Richmond, Olivet, Hortense, Montmorency and English Morello.

## Open Letters.

### A New and Valuable Forage Plant.

SIR,—There is another most marvellous forage, dry feed and fertilizing plant which is grown largely in the south, of which I have never seen mention in your valuable paper, and which I believe is well adapted to the central and northern parts as well as to the south. After the Florida velvet bean and the cow pea in the south, this is next in general value as an all-round green or dry feed and fertilizer. I refer to what is known as the "Beggar Weed," the botanical name of which is "Desmodium."

From its name you must not infer that it is a noxious weed, but on the contrary there is nothing grown in the nature of grass or forage of any kind that is eaten in its green or dry state by all stock on the farm with more relish and greediness than this.

The seed in appearance resembles that of clover, and is about the same in size, and it will require for seeding purposes ten to twelve pounds to the acre. To grow a crop successfully, first fit your ground nicely early in spring, harrowing down well before sowing, so that seed may be scattered evenly, thus getting a good even stand on the ground, after which sow your seed broadcast, then harrow again, covering well. If your seed takes nicely, your field will soon take on a beautiful green, as it is an exceedingly rapid grower. Or, another way, you can sow seed in with your oat crop and harrow, or may sow broadcast in corn and cover at last plowing. The latter plan will do as well if wanted for pasture, but if to be cut up for dry feed the other plan is better.

If you want to use your growing crop for pasture, I would not turn on until growth is nearly waist high and after heading process sets in, as at that stage the lateral stems are well developed with leaves and seed formation. If you wish to cut the crop to cure as a dry feed, I would cut it a little before it reaches the stage above described, as by so doing you can, in five or six weeks time, cut another crop from the same ground from new growth offshoots from the original plants, as usually after the second crop is cut a sufficient growth is made to afford you an excellent fall pasture.

To cut this crop you can use a scythe or mower as you like, as in its new and tender state it cuts as easily as timothy or other grass. To cure it, treat it the same as other hay. Should you wish to use the crop to enrich the land, you can turn the second growth under for fertilizer, which may be done in fall or spring as you like. If you want to secure a seed crop, cut growth first time when about thirty inches high, at which stage it makes an excellent dry feed, after which do not disturb it again until it has attained its full growth of from five to eight feet, and matured its seed. If your crop is a good one, it will stand so thick on the ground that you can scarcely walk through it and will reach away above your head.

After the ripened seed is secured in the fall, the dry leaves by this time having fallen off may be

turned under, together with dry stalks, all of which will make you a most valuable fertilizer.

In the south a fair crop may be secured the second and often the third year with re-seeding, but this plan I would not advise in the colder sections, for fear of winter kill.

While this plant is a grand success in Florida and the other Southern states, I do not regard it at all as tropical, and believe it will thrive and do well where other forage crops will grow. It being such a wonderful success in the South, and so valuable for all purposes, I think that farmers everywhere will make no mistake by giving it a trial.

If further information is wanted by your readers if they will enclose stamp I will cheerfully reply.

CAPT. E. A. WILSON.

### Fraudulent Packing.

In my letter, which you published last month, there is one expression the printer made which sounds quite unconnected, "of course a brand is a brand by law" was written "of course a barrel is a barrel by law." The letter was not intended for the press, but as you have used it perhaps you will give me not only space to correct the error but also to give the cause of its being written, viz:

I bought a barrel of apples: the barrel was labeled "Snows." When opened they showed poor sample of Ribston Pippins. After about two gallons were removed they turned into Holland Pippins, and a very bad sample at that. There was not a really sound apple in the barrel, and to add to the trouble they were re-packed apples sold by the Fruit Auction Company of this city. We have no trouble about coal oil, why should we have about fruit? G. H. FAWCETT.

### Fraudulent Packing.

SIR,—I enclose you some newspaper cuttings about apple packing. In addition to old boots and kindling wood we have found turnips and pumpkins. Now, how to put a stop to this is the thing to get at. We are of opinion that it can only be done by having every barrel so marked that it can be traced to the place and to the man who packed it, and make him liable for the damage. This could be done by securely tacking a card on the end of the barrel giving the full address of the grower, number of lot, township and county, also the name of the packer if packed by any other than the grower. This same rule could be applied to packages in baskets, such as plants, berries, etc., by tying the label to the package. We think fruit growers and dealers in fruit should urge on the government the desirability of passing a law to in some way meet these cases.

We should be pleased to see the rules of the Ontario Fruit Growers Association for grading fruit.

DR. A. BOWLBY. Waterford.