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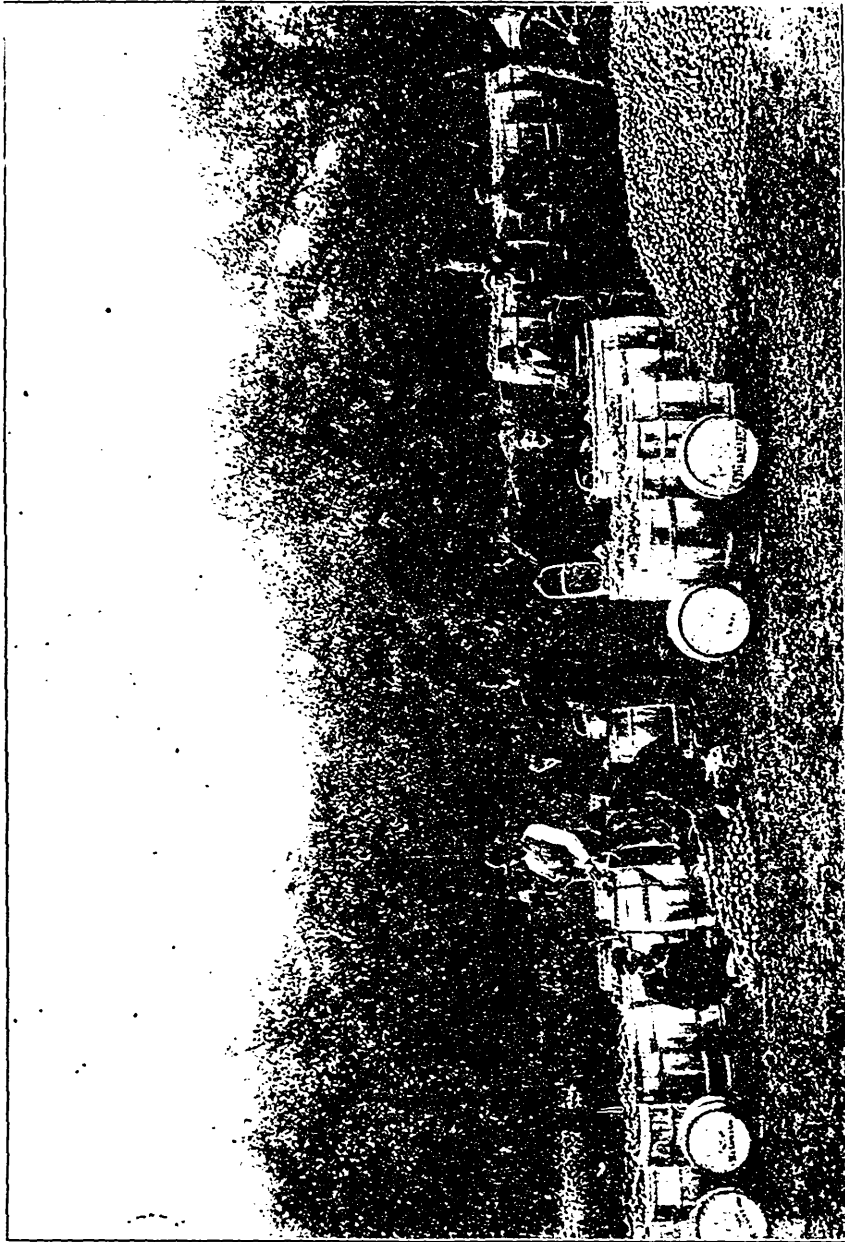
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PACKING APPLES FOR EXPORT, IN THE ORCHARD OF MR. PAY, ST. CATHARINES, ONT.

THE CANADIAN HORTICULTURIST.

VOL. XXII.

TORONTO,

1899.

MARCH.

No. 3



PACKING APPLES FOR EXPORT.

EVERY year it becomes more evident, that for the best success in fruit growing for profit, the aim must be to adapt our work to the foreign demands, rather than to our own markets; at least in the case of such fruits as can be exported. Canada can no longer find use for the apples, pears or grapes she produces; and some seasons is even overstocked with plums and peaches. And now that it has been proved that the first two can be exported, we hope for success with the others also.

In apples, the Baldwin and the Northern Spy have always been the leading varieties for export from Ontario and truly it is difficult to choose two others among all the hundreds of new apples, which can displace them.

Uniformity of packing is the great want of the present day, and were it possible to secure this end by means of legislation, we would urge such legislation. What is there for example, to prevent the present inspection Act to be

so changed as to require that Grade 1 for apples, should mean apples about $2\frac{1}{2}$ inches in diameter, in addition to the present requirements of that grade, such as freedom from worm holes, bruises, and other blemishes; and that Grade A 1 should mean apples about 3 inches in diameter, of good color and form, in addition to above points. Here then would be the grades exactly defined, and they would form the basis of agreement in selling to a distant buyer. As it now is we have no uniformity in size, and one man's No. 1 may be no larger than another man's No. 2, and the grading marks are meaningless.

We would go further than simply to establish grades and sizes: we would have it made a misdemeanor to put the stamp Grade A 1 upon a grade 1 or a grade 2 package of fruit, and make the shipper or seller of such false package liable to a fine, or confiscation of goods.

We would go further still, and have an inspector appointed, whose duty it

THE CANADIAN HORTICULTURIST.

would be to examine such packages as seemed proper, and impose fines upon any one offering for sale or shipping to market falsely packed goods.

The frontispiece to this article represents the packing of apples for export in the orchard of Mr. Albert Pay, an enthusiastic apple grower, at St. Catharines. In a letter recently received from him, he gives some interesting details which we here insert in full :

sults. Six applications were used on the one row and none on the row next and the difference was very marked ; in fact you could not find last year a perfect apple on the unsprayed, while on the sprayed row ninety per cent. were good clean fruit and not a wormy apple. I picked eleven barrels off two Baldwin trees and only one barrel off the two unsprayed Baldwins, next to them. There are Russets, Greenings, Baldwins

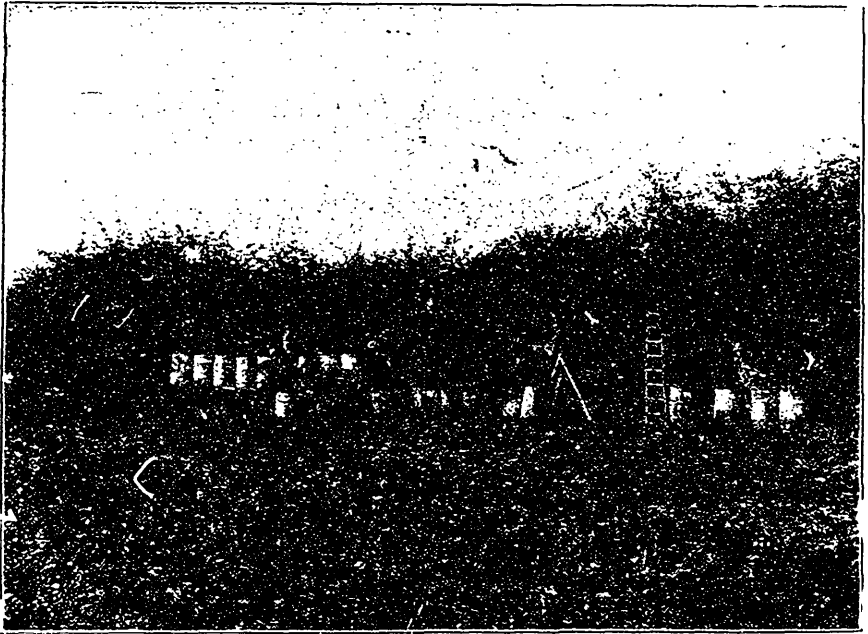


FIG. 1541.--HARVESTING APPLES IN MR. PAY'S ORCHARD

"The photos sent you are from the orchard which was picked out by the Fruit Growers of this section, at a meeting called by Mr. A. H. Pettit, three years ago, to select an orchard for experimenting on with spraying. These experiments have now been carried on for three years, the last two years under the superintendence of Mr. Wm. Orr. The same row of trees have been sprayed each year, and with very beneficial re-

and Spys in the sprayed row, and I have had three good crops in succession off them all, except the Baldwins which have had two crops in the three years. There are 400 trees in the orchard nearly all Baldwins, Greenings and Spys ; I have sprayed all the orchard three times each year, but I find it did not stop all the scab, and now believe it would have paid me well to have put on three more applications. I had as fine a lot of fruit

PACKING APPLES FOR EXPORT.

last year as there was any where in this section. It took 55 barrels of mixture to go over it all. In sorting and packing I make three grades, No. 1, No. 2, and peelers which I sold to the factory. I brand them with a circle brand, having a Maple leaf in the centre and the words Canadian apples, packed by Albert Pay, St. Catharines, Ontario. This is used on the No. 1. The No. 2 are all marked seconds. Last year I used on

rels. I usually get my barrels early in summer and store them till wanted and then they are thoroughly dry and I endeavour to keep them that way until shipped as I think a good dry barrel will help to absorb the sweat from the fruit. For packing I use a screw press, and the baskets are round, with a board bottom, with a hinge on one side and a string or cord on the other, which is hooked to the top rim; the basket cord



FIG. 1542.—“THE GABLES,” Home of Mr. Jno. Stewart Carstairs, Iroquois.

the face of each barrel a heavy white pulp paper, with an edge turned up about $1\frac{1}{2}$ inches, which just fitted the head of the barrel, and on opening the barrel the apples were covered, on removing the paper the face of the barrel showed a bright clean appearance on the No. 1. I cut all stems off the face row and face with a double row. I have never used any other package than bar-

loosened and the basket gently lifted up, when the fruit goes out of the bottom. This, I think, saves a great deal of bruising. I believe thorough shaking on a good solid floor or plank, after each basket or two is put in, is better than pressing so much on the top. I have shipped every year, for a number of years, to some private customers in England and Scotland and all the re-

ports were, that they arrived in perfect condition. I have also shipped to some commission houses in Glasgow, London and Liverpool, but these shipments, after slacks, wet, very wet, samples, and other various charges, have been paid, I am sorry to say have not done so well. I pick my apples and put them in barrels and they are all brought in under cover every night and the packing is all done inside. This leaves all cull stock in one place not scattered all over the orchard."

Mr. Pay certainly follows an excellent system in gathering and packing his apples. But in cases of very heavy

crops it is a great undertaking to carry all the apples to a packing house; and we have taken out our packing table into the orchard where the trees are heaviest laden, and had the pickers empty their baskets upon it. One man with one or two assistants will in this way pack forty or fifty baskets a day, keeping four or five pickers busy. We give a cut of our packing table, which holds about two barrels of apples, and is so inclined toward the opening that the fruit rolls toward the packer, and this much facilitates his work.

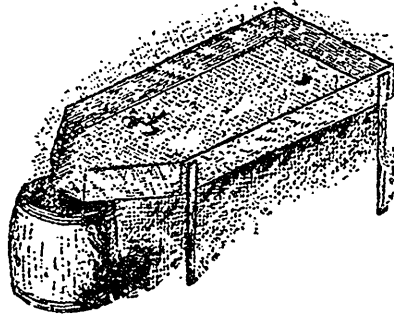


FIG. 1543.—PACKING TABLE.

AN EXPERIMENT WITH RASPBERRIES.

A YEAR ago last spring I turned under a heavy sod and planted corn, keeping it thoroughly cultivated and not allowing a weed or any grass to grow. Last spring I cross-plowed the field, taking pains to turn every furrow over, not cutting and covering, as is so common among some people. Then I pulverized the ground with pulverizing harrow until it became suitable for gardening. Then with a marker made of hardwood, 4 x 4, sufficiently long to make two rows at a time, by bolting standards two feet long and four feet apart, I marked the field out

one way. Then I began taking up my plants and setting them out in rows the other way, seven feet apart, using a line, and taking pains to have the rows straight both ways.

In setting out I used a spade, digging a hole sufficiently large so as to spread the roots out in their natural position, then filling in around the plant with fresh, mellow earth, packing it around the plant with the foot.

In taking up the plants, I selected good thrifty ones of the previous year's growth, and only took up a small quantity at a time, cutting them back to

WRAPPING FRUIT AND VEGETABLES.

within 4 to 6 inches from the ground, keeping the roots covered so that the sun and wind could not dry them out. I began stirring the ground with a fine tooth cultivator, cultivating them out both ways, and by so doing was able to keep them in such a condition that it was only necessary to hoe them twice during the season, while the plants made a growth of four feet in height, and although the season was unusually dry, there were only about five plants out of each thousand that died, and these I shall reset this spring.

In trimming raspberries, as well as blackberries, I always remove the old canes as soon as the crop is harvested, burning them as soon as they are removed, thereby leaving no brooding

places for insects, and have always had the best success in cutting off the tops of the canes that are left to bear, during the month of March or the latter part of February, if the weather permits. I have also found it far more profitable to set a new patch each spring, thereby having a fine new patch coming into bearing each year. I plow up the ground and seed to clover, then turn the clover under as soon as it becomes suitable. By so doing I have always been able to keep the land in good condition, and have had the pleasure of harvesting all first-class fruit, which has generally found ready sale at the highest market prices.—D. W. Piercell, in *North Am. Horticulturist*.

WRAPPING FRUIT AND VEGETABLES.



California Peaches
\$2.50 a Box. 60 Peaches.
Wrapped

New York The Market has
Slumped.

FIG. 1544.

AT the recent meeting of the Michigan fruit growers, H. E. VanDeman said —“There is nothing very mysterious about the success of the California fruit growers. In the first place, they take pains to produce high-grade fruit; then they fix it up in the nicest packages they can devise, and wrap every pear, every peach, every fruit, except cherries, in tissue-paper, some even having their brand printed on the tissue-paper. And this fruit they send here, and with it capture the fancy market.

The way to beat California is to beat her at her own game. If it pays them to buy tissue-paper and wrap their fruits it will pay you. Fruit which is wrapped is of better quality. The wrapping retains the flavor. Why do the Florida people wrap their oranges? They wrap oranges with skins as thick as sole-leather because it retains the aroma. With a pear the longer that fragrance escapes the poorer it is. The peach, pear or plum that is wrapped is better than if not wrapped.

THE STIRLING HORTICULTURAL SOCIETY.



FIG. 1545.—MRS. JAS. BOLDRICK, *President*.

THE Secretary, Mr. David Sager, sends us a very good review of the work of this Society during the year 1898, which was read before the Society by the Vice-President, Mr. J. S. Carstairs. He also encloses us a photograph of the President, Mrs. Jas. Boldrick, of her home "The Cedars," and of the home of Mr. Carstairs, "The Gables."

1. The financial condition of the Society furnishes excellent ground for congratulating the Board of Management. Of the total receipts amounting to \$128, more than one-third has been returned to the members in premiums and prizes; another third was expended on our periodical, *THE CANADIAN HORTICULTURIST*, and the remaining small third includes our running expenses of less than \$15, and our handsome little surplus of \$26.41, which is reposing snugly in the bank. As a fact, we have col-

lected one dollar a piece from our fifty-three members; we have given them each what has been received, and we have still on hand one-half of what we collected, still at your command!

2. Practically there have been three distributions of premiums. First, the premium of the *HORTICULTURIST*; the shrubs and trees received have been generally successful, in some cases shrubs have flowered in the first year.

In the Spring distribution of the Society itself, \$28.89 was expended, each member thus receiving seeds and vines costing about 45 cents, which owing to our discounts were worth from 75 cents to 90 cents. Altho' in some cases the seeds, or the man with the seeds, or the weather failed; still we are led, both from our own experience and from the testimony of others to regard this distribution as a success, considering the spring and summer; a success, it is true, that we may make greater in the year 1899. Our third distribution, \$13.80 worth of bulbs, that is about 15 bulbs for each member is still to be heard from, and still to be seen in the brightening glory of tulips, hyacinths and narcissi, that will gleam in a half a hundred homes of Stirling.

3. The monthly meetings of the Society have all been regularly held with the exception of the December meeting. Whether it is owing to the moon or the members, the attendance has been only fair. However, there are many of the members, chiefly ladies, it must be said, whom neither darkness, nor storm kept away. Perhaps in the new year, both the attractions of the programme and a little self-correction in the members may give us larger meetings, a wider enthusiasm, and thus wider usefulness as a Society.

THE STERLING HORTICULTURAL SOCIETY.

The public meeting at which Mr. McNeill, Director of the Ontario Fruit Growers' Association, delivered a lecture, was extremely profitable, and well attended.

4. The horticultural exhibit of flowers at the North Hastings Agricultural Society attracted much notice both by its beauty and its variety. This was

enthusiasm of our President, Mrs. Jas. Boldrick. Not darkness, nor rain, nor storm, nor even illness has prevented her attendance at our meetings or her performance of the duties of the chief office of the Society. Notwithstanding the depressing effects of badly attended meetings, and of criticism sometimes unfriendly, Mrs Boldrick has given the



FIG. 1546.—"THE CEDARS," Home of Mrs. Jas. Boldrick.

our initial attempt, and perhaps we do not overstep the duties assigned to us if we look forward and suggest that next year premium cards should be offered for flowers in classes; and it may be limited to flowers grown from our Society seeds, bulbs, etc.

5. In conclusion, this report would be incomplete, if it did not place on record the untiring energy and boundless

business of the Society her unwavering care and constant supervision. In fact, it is to the ladies that the Society owes its heaviest debt. It was three ladies that founded it, and if we now can present the report of a very successful year's work, it is owing to the efforts of Mrs Boldrick, and of the other ladies that have had an active faith and an active interest in the organization.

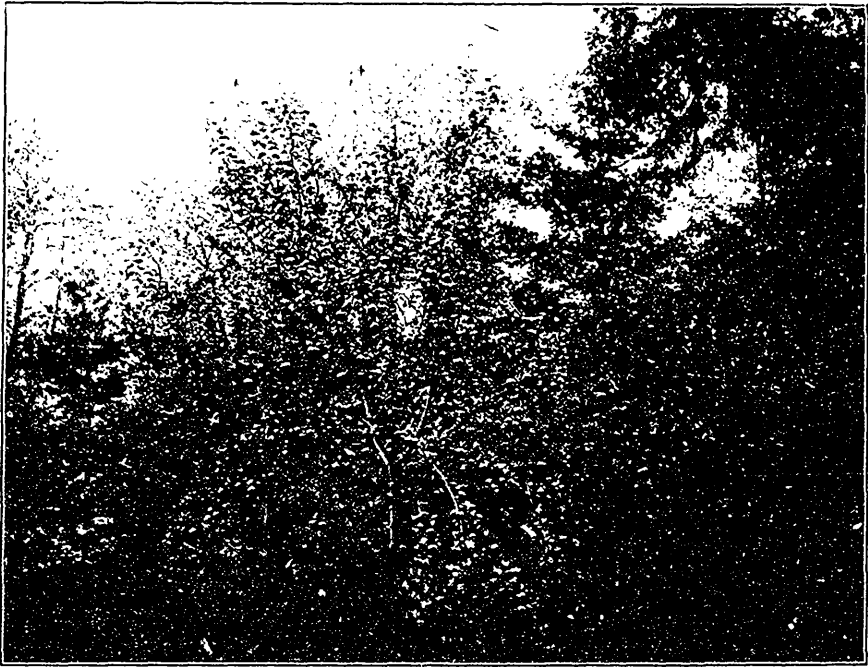


FIG. 1547.—BALDWIN SPRAYED.

GOOD RESULTS FROM SPRAYING IN EASTERN ONTARIO.

SO varied have been the results attained by fruit growers, from their work in spraying, that as varied opinions obtain regarding its benefit. The real explanation no doubt is to be found in the various methods of application, for it is only now and then that the work is done as it should be done.

A good example of the success attained by Mr. Wm. Orr in 1898, is seen in the orchard of Mr. Claude McLachlin, Arnprior, a gentleman who previously had little or no faith in the work. We publish a letter written by him to Mr. Orr, on the 29th Dec., 1898.

"In reply to your written reference to the spraying of my apple trees, I would say that in the fall of 1897, I was

completely discouraged with the result of my apple crop, so I made up my mind to cut out all my trees (I have about 500) in fact I had cut some of them down when I was advised by a friend to give them one more trial, and to try spraying. The following spring I was making inquiries about a spraying machine when I received a notice from Mr. Orr, calling a meeting of those interested in fruit raising in this section, and stating that it was the intention of the Government to conduct spraying experiments in different parts in the Ottawa Valley. I attended the meeting and was so much pleased with Mr. Orr's explanation that I immediately offered my orchard for the experiment, part of the trees were sprayed and part left

GOOD RESULTS FROM SPRAYING IN EASTERN ONTARIO.

unsprayed. With the result of the spraying I am more than delighted, the apples of the sprayed trees were round and large, the foliage a good rich color, and the trees made more growth than ever before in one season. In the fall of 1897 I had no apples fit for use, all were small and scabby. In the fall of 1898, on all trees sprayed I had perfect large and round fruit, and although the past season was an off year, I had some of my trees propped, they were so loaded. On the unsprayed trees the fruit was poorer, even than in 1897, and perfectly useless. I have bought the machine with which the spraying experiment was conducted, and I intend using it next season, when I expect even better results, as my trees were in very bad shape from the many insects that affect-

ed them. This fall they look clean and healthy. I am fully convinced that with good systematical spraying and ordinary care of the trees, we can raise as good apples in this section of Canada, and better than in most sections.

"The spraying experiment of the Government was of very great value to this section, and was much appreciated by the people."

Our photogravures show (Fig. 1548) Baldwins unsprayed, almost bare of fruit and with sickly foliage, and (Fig. 1547) Baldwins sprayed, with healthy foliage and a heavy crop of apples.

Let us have thorough work all along the line in this work during the summer of 1899, and let no country excel Canada in apple production.

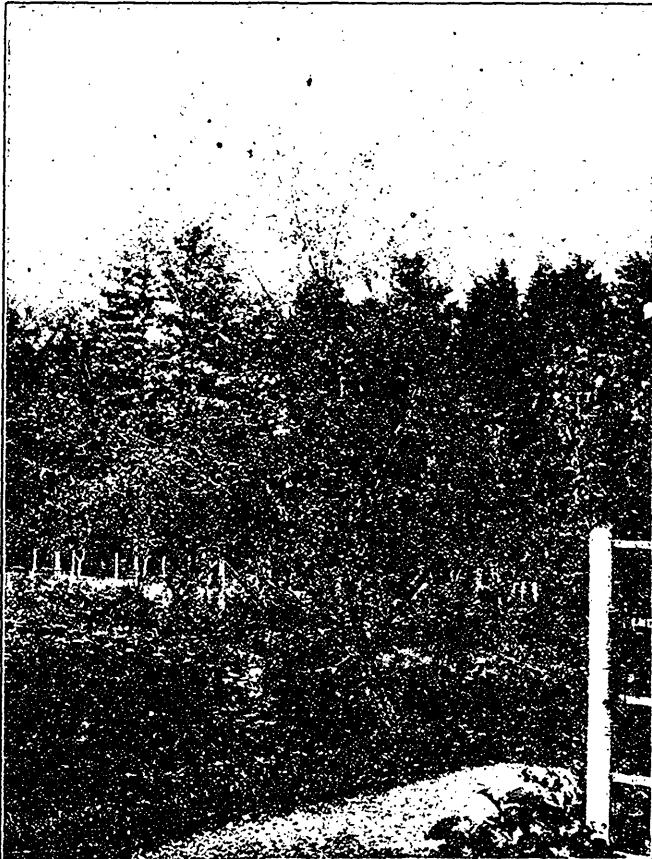


FIG. 1548.—BALDWIN NOT SPRAYED.

A NOVA SCOTIA GOOSEBERRY.

THAT our sister province by the sea is not behind in fruit culture is well evidenced by her magnificent Gravenstein apples, which command so ready a sale in the best markets. Gooseberries, we would suppose, should do well so near the sea; and this is farther evidenced by the accompanying engraving from a photograph, sent us by Mr. D. H. McFarlane, of Pictou, N.S., accompanied by the following note:—

“I am sending you a photo of a seedling gooseberry grown in Pictou County. I have been growing it for the last twenty years, and I find it a very good one with good cultivation, it grows very large, colour when ripe red; with me comparatively free from mildew, name Webster’s Seedling.”

STARTING PLANTS IN MOSS.

A very neat way to hurry our cuttings and bulbs is to use moss instead of earth. Take a large tomato can with holes punctured in the bottom, or an old leaky pail half filled with clean moss, well pressed down, and place a geranium on it with well spread roots, and then fill the tin up with moss, and you will be surprised at the result. The geranium has blossomed more satisfactorily with me in this way than in earth, the blossoms being richer, larger and more vigorous. It needs only pure water, rain water preferred. For verandah basket culture, give plenty of



FIG. 1549.—NOVA SCOTIA SEEDLING GOOSEBERRY.

water. Will the ladies please try and report?

M. A. HOSKINS.

Newport, Vt.



APPLES FOR EXPORT:



FIG. 1550.—MR. ALEX. McD. ALLAN, GODERICH.

IN this district, consisting of the Counties of Huron, Bruce and Grey, almost all the varieties in the apple have been tested, and we still cling to the older tried kinds, as containing those qualities not only adapted to the climate and soils, but also most valuable in the home and foreign markets. It is hard to get beyond the Baldwin, Greening, Spy, Ribston, Blenheim, King and American Golden Russet (properly the Golden Russet of Western New York). The Ontario is the only newer variety that seems to have staying qualities generally. Ben Davis succeeds well but flavor is against its permanence for market, and the same may be said of Canada Red,

Phoenix and a host of others. Of course the cry is often heard that many of even the old sorts are dying out, or rather deteriorating in size, form and flavor. Why?

A great many causes can be fairly given. First of all the fault lies at the grower's door, for neglecting the well known rules for production of crop of any kind, namely, cultivation and manuring. Upon a majority of farms the orchard is the neglected spot. But look at many newer kinds and what do we find? Some flourish for a while after introduction and then rapidly run back in outward marketing and flavor. When the stock is fresh from the propagator's hands we naturally look for

best results, because the trees have all the vigor of a newly found seedling or the benefit of a successful cross. I believe something beyond growers' neglects after planting can be discovered, if we look into the early history of varieties closely. Nurserymen have something to answer for in not selecting wood from perfect trees to use for budding. To me it seems reasonable that wood taken from a tree that is not strongly and well cared for is not fit for use in producing young stock as it does not contain the elements of permanency any more than we find in similar cases among animals.

In selecting seed we know it pays to select only from trees that are perfect in form and free from disease of any kind. Why not apply the same rule in selecting budding and grafting wood?

But, as I said already, the greatest fault is with the growers, and only persistent educative influences, such as the Fruit Growers' Association and Farmers' Institutes exercise, can ever accomplish the end so much to be desired. Returning to varieties, there is one I would like to see more largely introduced, the Stotts Russet, and improvement can still be made in this very desirable sort if some enthusiastic would take the trouble to get a cross of the Golden Russet into it for the purpose of toning down Stotts acidity slightly. I wish the Ontario had more firmness also.

Pewaukee was very promising but does not stand abuse as well as the old kinds named. Years of neglect have served to give us the Greening in many forms, but seldom do we find one with the well-known markings of this fine apple of years gone by.

If we, in Ontario, paid as close atten-

tion to the production of perfect apples as growers in Florida do in respect of oranges, the demand in all markets for our apples would increase enormously and we would not hear so many crying out about over-production. The over-production is only in poorly grown fruit, and by persisting in this course we are destroying markets and cutting off consumers instead of increasing. There is money in Fameuse if we give markets what they want in quality. If everyone concerned from the propagator to the grower could only be educated to a full sense of responsibility in attending closely to rules that common sense dictates and science teaches, we would have larger orchards, with proper room for trees to flourish and produce perfect fruits, and markets that would consume all we could grow and look for more.

But we have all departed from the orders delivered to our first parents when placed in Eden, and hence, our Edens are becoming worse and worse, just because we do not repent of folly and obey the rules laid down. Of the the varieties mentioned the Stotts brought the highest prices in Britain and Germany the past season, Kings came next, then Blenheim and Ribston, followed closely by Baldwin and Ontario and Greening and Spy very little lower. In all these there was demand constantly, while many other sorts brought occasionally good prices. Fameuse and Wealthy did well, where selected and delivered in small packages, Pewaukee is not a good packer being so uneven in form and varied in size.

ALEX. MCD. ALLAN.

Goderich, Ont.

RAMBLING NOTES.

FROM ST. THOMAS, ONT.

THE past season, taken all in all, was a fairly good one for fruit growers in this section of the country. The quality of the strawberries grown here was poor after the first picking. More than half the crop being what I call nubbins, caused I think by the extremely dry weather just when the fruit was setting. I like the Williams, the Woolverton and Bubach. Crescent and Wilson are too small for this market.

Early raspberries were scarce and high in price. Late berries were a good crop and prices dropped to \$1.00 per crate of 24 boxes. I fruited Conrath and Loudon this year for the first time and I like them both, they have come to stay. The first is a black cap, hardier, larger, as good a cropper and a better table berry than Gregg. The latter, a hardy stocky red berry, larger than Cuthbert and of fine color and flavor.

Pears were a good crop, choice Bartletts and Clapps brought \$1.00 per bushel on the local market, but late pears appeared to be a drug at 50 cents and 75 cents. Apples were only a fair crop, but prices were good, and many farmers received as much from an acre

of orchard as from the rent of fifty acres.

Plums were a good crop and brought good prices. This section produces now nearly all the plums that the city requires, where only a few years ago there were scarcely any grown; the plum belt and peach belt is becoming broader every year. Every Abundance plum tree in this section was loaded all they would carry, and every one is delighted with the fruit, both as to appearance and quality. It is a great acquisition to the list of plums. I sprayed thoroughly this year for the first time, and had fifty bushels of clear fruit from young plum trees. I am pleased with my experience, and shall spray again.

In my experience Japan plum trees will not stand the same strength of Bordeaux mixture as other plums. Neither will peach trees. Why don't those Government sprayers tell us these things so we would not have to learn by dear experience? I wish some one would tell me the best way to get borers out of plum trees and keep them out.

A. W. GRAHAM.

St. Thomas

PROTECTING STREET TREES.

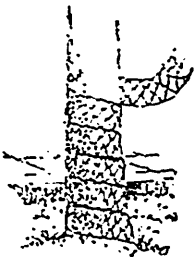


FIG.—1551.

Shade trees along a village or city street are liable to damage from the gnawing of horses that are stopped near them, and sometimes even hitched to them. A high protection of stakes and wooden slats is not attractive. The

illustration shows how shade trees can be wound with the narrow lengths of wire netting, and thus protected at little expense of money or labor, while the result is not distressing to the eye. Very narrow wire netting is now to be had, and this is capable of such stretching as to make it lie very flat and close to the bark of a tree. The upper end of the strip should be beveled when in place, so as to leave the top of the wire even all the way around.

THE NEW FRUIT CULTURE.

IT has been so fashionable of late years to talk about "The New Onion Culture," "The New Strawberry Culture," etc., that it seems quite in place to make a few remarks about the "New Fruit Culture." Certainly, if we may judge by the experience of the past three years, the old fruit culture is no longer profitable, and some new methods must be adopted or else the business will be declared a failure. One-half the varieties of apples are worthless for scab, one-third the whole crop of tree fruits for worms and curculios; grapes, raspberries and currants have glutted our markets, and what are we to do?

Right here comes in the value of improved methods such as the O. A. C. can point out, the faithful observance of which will make fruit culture as good a line of agricultural life as it ever was.

Let us very briefly refer to some of the apparent difficulties and see if we can find a solution.

(1) *The Glutted Markets.*—This is only an imaginary difficulty, a mote that obscures the visions of larger things. Our little Ontario has filled its own markets with home-grown fruits, and fancies it has filled the whole world, and individual growers are giving up in discouragement. How foolish, when the big markets have hungry mouths wide open for our luscious fruit products; when Covent Garden, England, will take all the apples we can send, and when Antwerp in Belgium and Hamburg in Germany are both clamoring for a share of our dessert apples.

I have just received returns from Hamburg for some prime apples sent to that market in cases; they were fancy apples of course. What do you think were the net returns? Fifty cents for

a one third bushel, or \$1.50 per bushel. Similar prices prevailed in other European markets. Is that a failure or a success?

Does that look as if there was no market for Ontario apples?

Then our magnificent Canadian pears. We have shipped several car loads to Bristol this year, and the net returns have varied at from 50 cents to \$1.25 per 3rd bushel case. Is there then no encouragement for growing pears in Ontario? I might go on and enumerate other fruits in the same manner, but time forbids.

I have shown, I think, that there is plenty of market for tip-top stock that is worth conveying to a distant market.

The next difficulty is "*How to sell the fruit which won't pay to export?*"

Why, you must stop growing such stock entirely. It will pay to export Duchess, Alexander, Gravenstein and Wealthy apples; it won't pay to export Fall Pippins, Rambos, or any soft, poor looking apple that is given to spot. It will pay to export Bartlett, Bosc, Anjou, Clairgeau, Boussock, and such pears, but not Buffum, Tyson, Rostiezer, Vicar, or other such inferior varieties. It will pay to export a firm peach like Elberta and Smock, but not a tender variety like Early Crawford. What must be done? Why you must plant, with a purpose, the varieties that will export and then you can capture the best markets in the world.

But *the worms, the scab*, etc., what about them? Why, kill them. You must, or they will kill your trade. Fight them with the spray pump. Not with a little shower from nozzles held by men riding lazily about in the wagon, but by wide-awake chaps who will get under and into the tree and cover every inch

RINGING GRAPES.

of wood and foliage with the deadly mixture.

You must fertilize, cultivate, spray, prune, and thin in a new and improved fashion, until you learn how to produce the largest and finest fruit in the world,

and then you will find fruit culture not only inviting, but quite as remunerative as any other line of agriculture.

L. WOOLVERTON,
in O. A. C. Review.

RINGING GRAPES.

THE question of allowing ringed grapes to be entered in competition for prizes has long been debated, and in many cases judges have ruled adversely. We believe the advisability of the practise is not yet sufficiently settled to justify such action. Indeed it has been claimed by some growers that ringing is a benefit even in the commercial vineyard, not only ripening the fruit from ten days to two weeks earlier than when not ringed, but also considerably improving its sweetness.

Experiments have been in progress at the Massachusetts Agricultural College since 1877, and have gone to show that the practise is advisable and does not injure the vine. An analysis by Dr. Goesmann showed the increase of sugar in juice as follows :

In 1877.	Ringed.	Not Ringed.
Concord	19 per cent. . . .	13 per cent.
Hartford	12 "	8 "
In 1889.		
Concord	8 "	6 "

Dr. Jabez Fisher also made some private experiments. In July, 1888, he ringed some Concord grapes when the berries were about a quarter of an inch in diameter and the ringed fruit showed color August 24th and the unringed Sept. 2. On July 2, 1889, he ringed two bearing arms on sixty vines, taking out a ring of bark from one half three-quarters of an inch wide, near the trunk. The result was increase of size about 30 or 40 per cent., and about ten days' gain in ripening.

In 1890 he ringed nearly an acre of Concord grapes, which showed color Aug. 17 and those not ringed August 25. The former were marketed Sept. 22, the latter Oct. 3. Twenty-two specimens of each sent to Dr. Goesmann showed 9 per cent. of sugar in ringed and 7 per cent in those not ringed.

Mr. Fisher observed, however, a weakening of the vines so treated, which made him question the ultimate benefit of the procedure. Perhaps if he had confined his work to branches which would need removing at the next pruning, instead of operating on the two main arms, he would not have weakened his vines so much.

Prof. Bailey quotes a writer in the valley of the Hudson, where a good many growers have been practising this custom, who says :

"That girdling destroys the flavor of some varieties has been well shown; that others, when girdled, never seem to ripen, or in other words remain sour, is also true. A girdled Catawba rivals a cucumber pickle for acidity, and a Delaware so treated never gets sweet. Empire State loses all its character when girdled, while Martha and Wyoming Red suffer no less in quality. Concord and Champion are girdled freely without bad effects. Worden and Lady sometimes crack badly when girdled; both are very thin skinned varieties. As a general rule the more delicate flavored grapes, especially if they contain foreign blood, deteriorate most by girdling.

NOTES BY THE REPRESENTATIVE OF THE O. F. G.
ASSOCIATION TO THE W. N. Y. H. SOCIETY.



FIG. 1552.—W. M. ORR.

THE 44th annual meeting of the Western New York Horticultural Society was held in the City Hall, Rochester, on the 25th and 26th of January. Morning, afternoon and evening sessions were held. The hall, which holds about seven hundred, was filled at most of the sessions, so that standing room was not available.

The president, W. C. Barry, was not able to attend, being sick. Mr. S. D. Willard, Vice-President, who is well known to Ontario fruit growers, ably presided. This Society is particularly favored by having such a large number of professors from Geneva and Cornell Experiment Stations, to attend their meetings. They appear to be able, willing and anxious to solve all the pro-

blems that arise, and to give the fruit growers all possible information.

This Society has done good work, not only for the fruit growers of New York State; its influence has overleaped state and international boundaries.

Dr. G. C. Caldwell gave an address on

DECAY AND PRESERVATION OF FRUITS.

Several species of fungi are the causes of the rotting of fruit. It attacks both ripening and ripe fruit, and is sometimes found in the blossom. The fungus germs are carried by flies and wasps. Spraying is the only remedy, and to secure the best results must be continued much later than we have been doing in the past. Thorough tests have been made of late sprayed fruit, but no poison was found, so it is not considered dangerous.

The fruit exhibit was very fine. Messrs. Elwanger & Barry showed fifty varieties of pears, all in excellent condition, some specimens of Anjou being remarkably fine. Geneva Experiment Station showed fifty-six varieties of apples. There were many other fine exhibits of apples, and about sixty plates of grapes shown. A new pear shown by E. Moody & Sons, of Lockport, is a handsome russet winter pear, but said to be rather poor in quality.

Peach orchards in South-Western Michigan are being attacked by a new disease, said to be more serious than the yellows. It was first noticed three or four years ago, and is particularly bad in Sangatuck Township, where thousands of trees have been ruined by it. The effect is that the fruit is stunted when it is about the size of a plum, and

NOTES FROM THE W. N. Y. HORTICULTURAL SOCIETY.

ceases to grow, and the tree loses vitality. This disease was also reported at Cayuga Lake, and in peach orchards on the Niagara river opposite Queenston. Mr. R. Morrill, of Benton Harbor, Michigan, President of Michigan State Horticultural Society and a large peach grower, says that this disease is quite as contagious as the yellows, that there is no known remedy but to dig out and burn roots as found.

Mr. S. S. Crissey, of Fredonia, N.Y., read a paper on the

CHAUTAUQUA AND ERIE GRAPE COMPANY.

The Chautauqua-Erie Grape Belt includes eleven townships; nine of them border on Lake Erie and join each other. There are twenty-seven thousand acres planted with grapes. Ninety-five per cent. of all the vines planted are Concord. Two thousand five hundred growers, representing twenty-five thousand acres, are members of the Company. The objects of the Company are to supply a uniform grade of fruit, prevent the overloading of the markets, secure a wider and more equal distribution of the fruit at the least possible cost to the producer. There was shipped from this district in 1897, 6,000 car loads of grapes. The crop was lighter in 1898, being estimated at 4,000 cars. The Company handled in a single day, Oct. 16, 218 cars of 2,800 baskets each, or 600,000 baskets. They handled in a single week over 1,000 cars. Each day's shipment was pooled separately and every basket accounted and paid for. The Company paid all expenses, all losses, and every grower in full, at a cost of less than three mills per basket. The business of one year amounted to nearly one million dollars. Seven and three-quarter cents each was the average

price received by growers for nine-pound baskets of grapes.

Mr. J. J. Borden, Inspector for San Jose Scale, reported a very bad infestation on Long Island, he found seventeen Nurseries infested. Flushing Cemetery is also badly infested, both trees and bushes, including two rows of elms from forty to fifty feet high. Beach, maple, linden, in fact almost all kinds of trees are infested.

Central Park, New York, he says, is badly infested. He reports thousands of trees killed by the scale, and hundreds of thousands dying, including many full grown apple trees.

Professor Beach says that stock solutions for Bordeaux Mixture is all right, but they must not be mixed until wanted for use, and then they should not be put in the spraying barrel until the barrel is partly filled with water, as when put together at stock-strength a chemical action takes place which injures the mixture. He says that he would not use Bordeaux Mixture that had been prepared for over two days.

D. K. Bell, of Brighton, gave an instructive address on "Pear Culture." Clay loam the best soil for pears. Clapp's Favorite, Bartlett, Seckel, Sheldon and Duchess, were among the varieties recommended; he advises planting about two feet deep, and making a large hole to give ample room for the roots. Training should be done while trees are dormant, say from Nov. 1st to March 1st; he prefers the pyramid system of pruning. Pear trees should be pruned annually, and well cultivated and fertilized, using manure every other year. Let the trees have plenty of sunshine and air, don't grow any other crops on the ground after the trees are eight years old. Thin the fruit early in the season.



FIG. 1553.—PROF. S. A. BEACH

A discussion as to whether it is better to give an orchard clean cultivation, or keep stock of any kind in it, brought out the fact that clean cultivation is growing in favor. Numbers who op-

posed it a few years ago acknowledged that they had changed their minds.

Sutton's Beauty was spoken of as a first class apple.

A discussion on Japan plums brought out the following: Red June said to be fairly good, and profitable on account of being two or three weeks earlier than any other variety. Abundance and Burbank said to be abundant bearers of fruit, of quality from poor to medium. Wickson a large beautiful plum of good quality, and quite hardy, but doubts were expressed as to its productiveness.

Thinning of all kinds of fruit was recommended to secure better specimens, and preserve the vitality of the tree.

An interesting paper, on "Apple Canker," was read by W. Paddock, of Geneva, which will appear in another issue.

Your representative was kindly received and courteously entertained by the Society.

W. M. ORR.

Fruitland.

MAKE YOUR OWN PLANT CUTTINGS.

CUTTINGS of many of the plants to be used in the flower garden should be rooted during the months of February or March. Geraniums made during these months should be covered with blooms during the summer months if they are given proper care.

Other plants that add greatly to the beauty of the garden, and which may be propagated by cuttings, are the Coleus, Iresine, Althermanthera, and Centaurea. These plants all root readily from cuttings; they can be started in a cutting box in the window, which should be as

long and wide as desired for the limited space, and about four or five inches deep. It should be filled with clean river sand. When the cuttings are first made they should be shaded during the heat of the day and sprinkled several times a day until the cuttings become thoroughly established. The sand should always be kept moist but never wet.

Cuttings are often rooted in a deep plate filled with moist sand. There are various contrivances used for rooting cuttings, but in each case the rooting medium is clean moist sand. Soil is apt to become soggy.—*Kansas Bulletin.*

NIAGARA DISTRICT FRUIT MEN.

AN important meeting of fruit growers was held at St. Catharines on Friday the 17th February, at which commission merchants and railway men from Toronto, Ottawa and Montreal were present, and also Messrs. Bain and Gibson, members for Wentworth and Lincoln.

The commission men were blamed for selling fruit by auction, for selling all grades of fruit at the same price, for wholesaling to themselves, and then retailing at a much higher price for which the grower got no account; for using the fruit, which is the property of the growers, for competing with other commission merchants, etc.

To these points the commission men replied, pointing out that in some cases the auction system was a good means of getting the fairest price for each man's goods, for thereby all packages were sold wholly on their merits; that the best commission men were these who confined themselves to the wholesale work, which some did not do; that usually packages of fruit were classified according to grades, at once on arrival, and sold accordingly, but that on a slumpy market all fruit would be sold in bulk without distinction of grades.

The subject of transportation of fruit was taken up in the afternoon, and it was shown that we need (1) better ventilation for cars which carry fruit, by means of a rapid circulation of air; (2) lower rates to Manitoba, which would result in a largely increased volume of trade; (3) greater speed or dispatch, especially for small lots.

Mr. Clemes of Toronto said he could find little fault with the ventilation of cars coming into Toronto, from any

points in Ontario; but the methods of packing a car were bad. The Florida shippers take pride in loading a car, and it is done with such system that it is worth anyone's time to see; Canadians too often ship in a higgledy-piggledy manner.

Mr. Callahan of Montreal thought the service very good to Montreal, the new refrigerator cars, fitted with Clark's patent, and numbering from 50,000 and upwards, are well ventilated. The rates could not be better than last year, 33c. a hundred from Toronto to Montreal.

Mr. Hunt of Ottawa thought that with well ventilated cars it was not necessary to use ice on short distances. Mr. Albert Pay said the kind of cars furnished by the Grand Trunk in 1898 were a disgrace—dirty with coal dust, patched up floors, and generally shabby.

Mr. Robinson, representing the G. T. R., said that in 1898 fifty of the Clark's patent ventilated cars ran between St. Catharines and Montreal, and in 1899 there would be about 500 of them in use for fruit growers, but he would not advise their use without ice.

Mr. E. D. Smith said even these cars were not sufficiently ventilated. The opening is only about four inches in diameter, entirely too small; it should be three feet wide, a foot high, and placed in front of the car, with a wire screen to protect from dust.

Mr. Grant of the C. P. R. said their ventilated cars had an opening at the ends three feet high and two feet wide, with a sheet of wire cloth to protect from dust.

Regarding rates to Manitoba, he said these had now been lowered 33 per cent., and were now as low as anywhere else on the continent. The rate for apples from Ontario to Winnipeg was

now only 50 cents a hundredweight, and for grapes 81½ cents a hundred (as third-class freight).

The re-icing of cars en route to Winnipeg had, in some instances, not been done frequently enough, but arrangements have now been made to have this carefully remedied, and such cars will be re iced as often as is necessary.

The agent of the Niagara Central said that if shippers had any farther grievances they should appeal to the Freight Agents' Association, which meets at Toronto every month, representing all the railways of Canada, and the secretary is Mr. John Earls, Union Station, Toronto.

The Packers' Association had recently met with this body and received some important concessions, and the Fruit Growers might do the same.

The agent of the Intercolonial said that his road was now in a position to forward fruit in the best condition to the maritime provinces.

Excellent addresses were delivered by the Hon. Wm. Gibson, and the Hon. Thos. Bain, in which they congratulated the growers on the grand progress which had been made in their business during the past few years, and referred to the need of better service for distribution of fruit from such centres as Montreal and Toronto. Public opinion was turning rapidly in the direction of the appointment of an independent Railway Com-

mission, to which could be referred all matters of dispute between the Railway Companies and the shippers—a committee which would be entirely outside of political influences, and the sooner this is appointed the better in the interests of the public.

The Secretary of the Ontario Fruit Growers' Association said a committee had been appointed by that body which would take up the matter of Railway Transportation in earnest, as soon as it was possible to put down in black and white exactly what the growers want. For this purpose he was present at this meeting, and was prepared to receive complaints from all parts of Ontario. These would be looked into by the committee and put in shape to be laid before the Railway Commission should such a body be appointed.

The following resolution was moved by Mr. D. J. McKinnon, seconded by E. J. Woolverton, and unanimously carried :—

“That in the opinion of this Association the service rendered the public of this country by the railway and express companies in the matter of transportation of fruit, is not wholly satisfactory in respect to ventilation of cars, to despatch, and to rates; that the fruit growers have long striven to secure better service, but with little result; that to remedy the evils complained of this Association deems it absolutely necessary that a Government commissioner be appointed with the fullest discretionary powers to investigate the whole question of service rendered by public carriers both as to its efficiency and reasonableness of charge, and to remedy all evils that may have arisen under the monopolistic system heretofore in force.”

FROZEN PLANTS.

Many people are at loss what to do when plants have been frozen. While on a visit to Lansing, Mich., Prof. Craig visited the greenhouse of Prof. Taft. It so happened that the previous day had been Thanksgiving, and the man in charge had remained away all night, the result being that every plant was found to be badly frozen. Prof. Taft at once procured a quantity of tobacco and filled

the whole place full of smoke in order to lessen the strength of the sun's rays. He then turned on the water in different parts of the greenhouse in the form of fine sprays. He heard later from the professor that the plan had succeeded admirably, very few plants being killed. It is rapid thawing that hurts the plants.

PROF. CRAIG.

THE TOMATO FOR EXPORT.

SIR, — I have read in "American Gardening" a condensed report of the proceedings of the late meeting of your Fruit Growers' Association. I observe that the export of tomatoes to Great Britain by your people in 1898 was not yet quite satisfactory, chiefly owing to the size of the fruit. Allow me to make a suggestion that may be helpful to you, and through you to your friends at Grimsby, Winona and Burlington, who are taking the lead in the export of fruits. It is, that at least two or three of your friends at each of these points make a small trial planting of Livingston's "Honor Bright" tomato. It is one of Livingston's latest introductions in the tomato line, and is a quite distinct variety. The description of it, to be found in Livingston's catalogue, is a fair and accurate one as it grows here. The habit of growth of the plant is almost precisely what Mitchell, of St. Mary's, recommends as the best for Northern latitudes, a flat, spreading growth. It is medium early. The fruit is of good quality, not superior to Ignatum, perhaps scarcely up to it, but good, better than many others. The features of the fruit that lead me to think that it will give satisfaction in

the export business are, medium size, smoothness, freedom from crack or rot, toughness of skin (skin is of a thin, silky texture), and an apparent capacity for ripening after being gathered from the vine at the proper stage, and without deteriorating in quality, while it is ripening in the dark, or wrapped in paper. The fruit changes in color as it grows and approaches maturity just as the description narrates. Last season I gathered some fruits at the "waxy-white" stage, wrapped them in paper, and placed them on a shelf in a rather warm, probably 50°, compartment of my cellar. In ten days the fruits were a deep red and in fine condition. My gardening operations are for the present confined to the back yard of a city lot, and my experience with "Honor Bright" is confined to that, with three plants. My very little experience was so satisfactory, and my enquiries about the variety gave me such good reports, that I have confidence in recommending your friends to make small *trial* plantings of it, with a view to adopting it in the near future as a standard variety for export.

J. CAVERS.

95 West Second Ave., Columbus, O.

HOW TO KILL THE LEAF HOPPER.

Leaf Hopper, Thrip and Erythroneura Vitis are all different names for one small insect, which is often very numerous on grape vines during the summer.

It is about an eighth of an inch long, of a light color, and marked by three dark red bands. They fly from their position on the under side of the leaves when the vines are shaken and soon light again.

To combat them in the summer when their destructive work is noticeable is difficult. Now is the time. They may be found under the leaves near the vines. If the vineyard is cleaned of all litter and this promptly burned, many will be destroyed. The insects remaining on the ground can be killed by a spray of coal oil emulsion.—Kansas Bulletin.



Flower Garden and Lawn. ❀

YUCCA FILAMENTOSA.

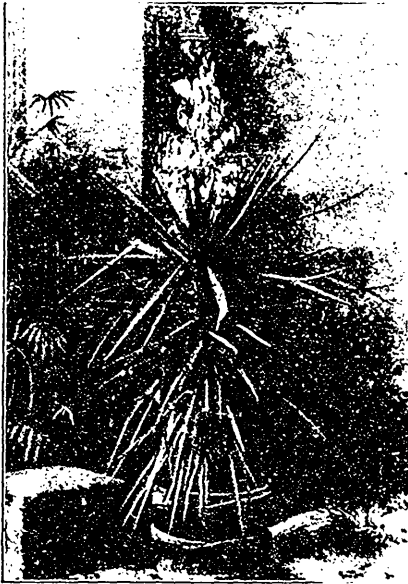


FIG. 1554—YUCCA.

OUR northern gardens contain no other hardy plant which in appearance is so distinctly tropical as the Yucca. It makes a fine specimen plant standing singly on the lawn, and when in bloom is a grand and beautiful object with its hundreds of drooping white lily-like flowers. Planted in good soil, and with a little space about it kept free from grass and weeds, it will take care of itself. The stem is killed down by the frost, but an annual growth is made, becoming stronger with age. It is well to place a layer of litter about the plant late in autumn, and in spring to dig in some good old manure. Besides the position mentioned for it, it is also suitable for the shrubbery border, or it may form one of a small group of shrubs, or occupy the centre of a large flower bed.—Vick's Magazine.

THE NARCISSUS NOT BLOOMING.

When Narcissi fail to bloom it is usually because the bulbs have become too deep and too much crowded in the soil by long remaining in one place, or because the bed is composed of tenacious clay soil to which the sun does not have free access. In such a position the

bulbs do not ripen well because the ground is constantly moist, and in consequence they split up into numerous smaller bulbs, none of which are of sufficient size or vitality to bloom. Knowing the cause the remedy will suggest itself.

A CHEAP GREENHOUSE FOR PLEASURE AND PROFIT.

I HAVE seen from time to time in your columns, instructions on building various styles of greenhouses. Now I think I have one that some others would like. It is one which I made myself during my leisure moments, both night and morning. I present the drawings that others may do as I did. The plan (Fig. 1555) is $\frac{1}{8}$ -inch to the foot. The rafters and uprights I had made, but the rest of the work I did myself.

There are 600 panes of glass in the

The boiler room is 2 feet deep. The bottom or sides are cemented or stones laid in cement. The top and sides are lined with sheet iron and painted to keep from rusting. The chimney is of brick about 7 feet high, and four lengths or 6 feet of 6-inch Acron pipe on top of brick. The ventilator over the boiler is of galvanized iron, 8 inches in diameter, 6 feet high, with a damper in it. This takes away gas that may escape, and is regulated at night to keep the house ventilated.

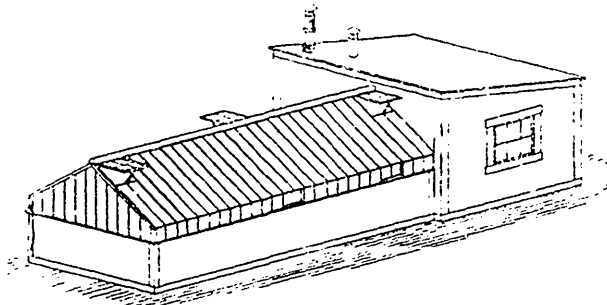


FIG. 1555.—A LOW COST GREENHOUSE AND BOILER ROOM.

roof and end; the size is $8\frac{1}{2} \times 6\frac{1}{2}$ inches. These were plates of pictures or photographic negatives—larger glass would be better. The glass in the belt or the upright is 9×12 inches. The rafters are $\frac{3}{4}$ -inch between the glass and the uprights are $\frac{1}{4}$ -inch between the glass. This makes everything come all right.

There are two skylights on the east, and one on the west side, two slide windows in the belt on each side of the house. From the bottom of the belt to the ground is $3\frac{1}{2}$ feet. This can be made from old boxes, with a cleat or strip over the crack of the edges.

The boiler is a No. 12, made by Howes, of Boston, for hot water, and is the best thing of its kind I have ever seen for a portable boiler. This is the second winter I have used it, and I do not have any trouble to keep the house at 60 degrees, when it is zero outside. It takes two tons of egg coal, and one-half ton of screenings for the year round, by putting on a little coal four times a day. The coal bin will hold one-half ton of coal and one-half ton of screenings.

There is about 112 feet of 2-inch piping in the form of the letter L running under the west side and end of bench. The east side is portable, so I can take

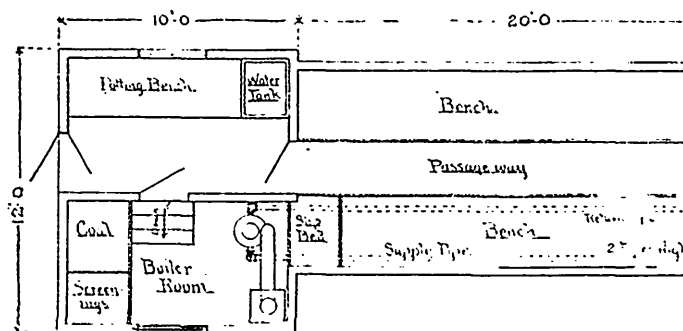


FIG. 1556.—PLAN FOR LOW COST GREENHOUSE.

the bench down when I want to stand Chrysanthemums on the ground. After they are gone I put the bench up again, and everything is all right.

The water tank is supplied with water from the roof of the shed. The house and shed are double boarded on 2 x 4

joist, making it 4 inches thick, and filled with sawdust. There are two doors at the entrance. The outside door is a good thing, as it keeps the other door from freezing or sweating.—American Gardening.

ARUNDO DONAX



FIG. 1557.— ARUNDO DONAX.

THE name Arundo is of doubtful derivation, but supposed to be from the Latin word *Arundo*, a reed. The species, *Donax*, is a very strong growing bamboo-like reed, having long stout leaves, that remind some people rather too much of Indian Corn. Farther south, it is much used in beds of ornamental grasses and for centres of sub-tropical beds. The roots are of

doubtful hardiness here if unprotected: we lift the roots every fall and store them in a cool cellar over winter. Plants so treated do not attain nearly their full height however. Those shown in the engraving, were planted in May and photographed in October. A single specimen at our nurseries was kept in good condition through the winter of 1897, by turning an old apple barrel over the root after shortening back the stems and banking the barrel up part way with earth; this plant made growth last summer of 12 feet. Should we succeed in keeping the root through another winter, it is expected that a greater growth can be obtained by further enriching the soil. *Arundo Variegata* is a smaller growing species, variegated after the same style as the common Ribbon Grass; it is not quite as hardy as the green variety.

Hamilton.

WEBSTER BROS.

ASPARAGUS SPRENGERI.

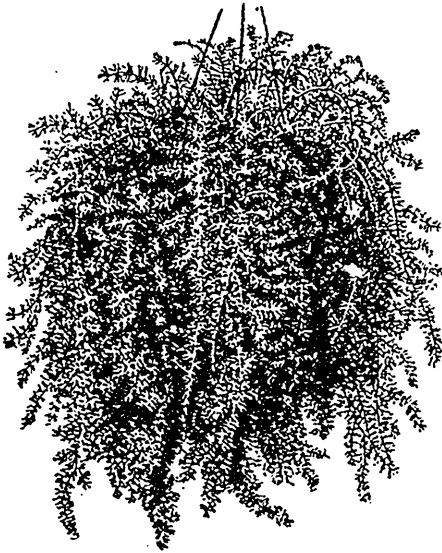


FIG. 1558 ASPARAGUS SPRENGERI.

PERHAPS no other new plant introduced within the last twenty years has been so satisfactory and so welcome as *Asparagus Sprengeri*—now called “Emerald Feather” by some and “Abyssinian Parlor Fern” by others. It has not only proved the most profitable plant for florists, who now grow it by the thousands, for its long feathery sprays which are used to the exclusion of almost all other decorative greens, but it is also grown extensively in baskets and in jardineres from which the long green sprays droop for the length of 3 to 8 feet, according to the age of the plant. The engraving shows a plant in a hanging basket. It is almost unbelievable to most persons, that grand specimens measuring 12 to 15 feet in circumference, and with sprays

8 feet long, can be produced in the short space of two years from quite small plants, and yet such specimens are frequently shown, and one of them was awarded a special premium by the Pennsylvania Horticultural Society, as a reward for its remarkable beauty.

Not only is the plant extremely valuable, but it is admirable at all times, and naturally, especially so when smothered with its delicate, pure white and deliciously fragrant flowers, which perfume a whole conservatory. These delightful flowers are followed later on by bright red seed berries which remain perfect for a long while, and from which the plant can be easily and quickly propagated.

I do not know of another ornamental plant that I would prefer to this gem—and this for many reasons: First, it can be grown with less trouble than any other, whether indoors or out—sun or shade; next, it keeps green the whole year round, and its graceful foliage can be used for many decorative purposes, and also with any cut flowers. Again, it is a plant that increases in value from year to year, and does not have to be replaced like so many others. Again, it can be put to many uses, such as suspended from a porch or balcony, elevated on a pedestal, or grown in flower boxes outside of a window. It likes sun, but also grows elegantly in shade. It prefers a rich soil and lots of water at all times, but at the same time stands neglect, owing to its large fleshy roots. Owing to its rapid growth it should be repotted frequently. — Park's Floral Guide.

PLANTS FOR THE DINING TABLE.

TO one having the attention called to the matter for the first time it is surprising to note how surely fashion rules even among flowers. The use of palms and decorative plants of that order upon every occasion of social importance has opened a new field for the florist. If he be what Mr. Peter Barr refers to as a "bread and cheese" grower, rather than one cultivating plants for love of their rareness and charm, he fills his house with such specimens as my lady loves to see adorning her dwelling. She usually forgets to water, or neglects to give proper sun or shade, and in a season or two is back at the florist's door seeking fresh subjects for her jardinières; all to the advantage of the grower and the attractiveness of the parlors, if not to that deep and abiding love of flowers that holds sway in some hearts.

A floral fad making for trade in the same direction is the growing custom of employing a jardiniere of low plants as a centre piece for the dining table. Whereas madame used to purchase cut flowers and feel her table not fitly adorned for the social function or expected guest unless some sort of floral piece, however simple, held the centre of attraction amid her silver and china, she now realizes the aggregating extravagance of such outlay, and feels herself sagacious and economical when she buys something more durable than the perishable blossoms. Best of all, just now, she likes a low jardiniere having an outside holder of silver and stocked with dainty ferns. Such a centre piece can be kept, with a minimum of care, in fair condition for three or four months. At the end of its presentableness it comes back to the florist for fresh filling. Madame wants something equally pretty

with the first, but would like it as different as may be. It is in meeting this demand for suitable table plants that the florist's best wits will be likely to bring him promptest compensation. The plants would preferably not be tall, unless of delicate texture; anything being an annoyance, particularly to men, and always a menace to conversation, that obtrudes itself to intercept the eye glances of those about the table. Particularly the head of the house and Madame, being seated opposite each other, dislike a barrier to those eye messages frequently so useful to the administration of domestic affairs. Who knows what nice decisions of matters of church, state or kitchen, even a *Cocos-Weddelliana* might be guilty of turning away.

(Of ferns, *Adiantum* and *Pteris* at once suggest themselves as well adapted to table use, either in collections or as single specimens. The woman who has a flourishing *Adiantum*, and a stand of *Lycopodium* and low ferns, may give each its days of retirement in the window, and with occasional substitution of flowers or some blossoming plant, keep up a continual variety. For no matter how lovely a thing is, an American is wearied by sameness. This is the greatest fault to be urged against the palms, dracænas and various stiff leaved tropical plants.

For grace and beauty of effect nothing can surpass a simple basket as a receptacle for plants. There must be provision for removal, for watering, and for complete protection of the table cover. The covers of the plant holder should always be subdued in tone. Soft olives and yellows can never offend the eye, but reds and blues are usually an abomination. Ferns and small decora-

BULBS FOR THE GARDEN.

tive plants, set to keep on growing in an attractive receptacle, no matter how simple and inexpensive it be (in fact the

more so the better), would sell on sight in any shop window.—American Gardening.

BULBS FOR THE GARDEN.



NE of the most eminent authorities on floriculture, Mr. Peter Barr, has recently been visiting Canada and the United States. He is an enthusiast in bulb culture, especially Narcissi, and he has travelled far and wide, in search of novelties.

Interviewed by American Gardening, he said :—

All spring flowering and bulbous plants should be placed facing the north and in a cool bottom ; Daffodils, Tulips, Hyacinths, Chionodoxae, and the whole tribe will be both lasting and beautiful and go on from year to year if these conditions are attended to, namely, a cool bottom and facing the north. Bulbous plants should be left where they are and not removed annually and not be manured under any circumstances. Every bulb that grows in Europe may be grown in the United States, and in many cases bulbs that cannot be grown in Europe can be grown in the United States. I believe myself that all the Cape bulbs could be grown well out of doors. *Lilium candidum* and *Lilium chalconicum* and many other Lilies do better when they are grown in tightly over-grown masses. According to experiments made by Dewar at Kew, it was found that *Lilium candidum* did best when the bulb was partially exposed. In a country where the frost penetrates so deeply and so suddenly, I do not see the advantage of deeply covering the bulbs. The rule for planting bulbs is three times their own depth, that is to say, if a bulb is one inch from

top to base, it should have its base three inches below the surface. *Crinum* has a bulb of about one foot and more in length and may safely be planted at a depth of eighteen inches. A Dutchman will usually plant his bulbs, measuring by the depth of his hand placed side-ways on the ground. The Japan Irises should be placed on a bank with underflow of water as from a spring. In such situations they do simply magnificently, but they want plenty of drink and should not be in stagnant water. And the same conditions will prove satisfactory for almost all alpine plants. All the Primulas will take the same conditions. Given that condition the English Primrose would flourish as well here as in its native place. It suffers in this country from being dried up in the summer. It does not matter how much sun plays upon it so long as it has water feeding it below.

AN OUTLET FOR GRAPES.

When at Cornell, I was asked what the chances were of sending grapes to England. I replied, "If you can deliver them in condition, the sale will be immense for the street trade. The only question is how to send them over." Since I left Cornell, the subject has occupied my thoughts considerably and I have come to the conclusion that grapes put up in wooden boxes that can be retailed at 12c., 18c. and 36c. would have a large sale if handled by agents who understand the mode of distribution for that class of trade. The markets would be London, Liverpool and

Glasgow. It is not a produce for Covent Garden. American grapes will not take the place of the Guernsey or English grown grapes, but they will compete in the market with the Spanish and Portuguese grapes at any season that the grapes can be delivered in these markets.

The class that would eat these grapes would be the mechanic class. The classes that eat the grapes of Guernsey and of English growth are the upper middle class and aristocracy. The lower middle and the mechanics are a large public, ready to buy in small lots.

Before the "Lazy Club" at Cornell he spoke quite positively, asserting that he believed there is a profitable market for American grapes in the old world. If we could place our grapes in English markets for six cents a pound, tons and tons could be sold in a week. Mr.

Spencer here called attention to the fact that a carload has been sent over from Chautauqua County for a number of years, but with discouraging returns. The difficulty seems to be not so much in the cost of transportation, for that hardly reaches two cents a pound, as in the market. It needs a man to push matters at the other end. For a number of years English and continental gardeners have been shipping their high priced hothouse grapes to America. At first it did not pay; the market was too cautious and prices too uncertain. Last year a hustling Englishman came over to represent English grape growers and push their interests. The result was an immediate advance in returns, so that shipments became profitable. Our American grape growers might apply this business stroke to their profit.

ELEAGNUS LONGIPES.

ELEAGNUS LONGIPES, or Japanese Oleaster, is a hardy, deciduous ornamental shrub of recent introduction, and upon trial it is found to be as valuable an addition to our list of fruits as to our ornamental shrubbery. In cultivation it forms a shrub of bushy habit, growing from four to six feet in height by as much in breadth, with oval foliage, dark green above and silvery underneath. The bark is also quite attractive in winter, being a reddish brown color. It blooms during the month of June, the bright yellow flowers being borne in the greatest profusion on long stems around the branches, and are succeeded by

small oval-shaped fruit about half an inch long, and of a deep orange red color, studded with small golden scales or spots, giving it a very attractive or ornamental appearance. Not only is the fruit edible, but to most persons it is very palatable, possessing a sharp but pleasant flavor, while by many it is preferred to currants or gooseberries. And it bids fair in time to have a market.

A shrub so interesting, and promising, well deserves special attention and a place on the lawn as well as in the fruit garden; but wherever grown it should be given an open situation and sufficient space in which to properly develop.—Vick's Magazine.

THE NIGHT BLOOMING CACTI.

THE only true night-blooming cactus, especially so-called, is the *Cereus Grandiflorus*. This long specific name implies its beauty and grandeur. It is one of the most delightfully scented of all the cactus family, blooming, as noted, at night. A large plant covered with blooms, is a sight of beauty once seen that is never to be forgotten. The round stems have numerous small angles on them and are covered with delicate spines. These stems are usually about as thick as one's finger. Of late years, another member of the cactus family has usurped the name of night-blooming. This is *Phyllocactus latifrons*. It is one of the broad, flat-leaved kinds, and is so readily propagated that it has now become common. It has a long tube to the flower, which curves downward like a siphon. It does bloom at night, and in one sense is night-blooming; but it bears no comparison in any respect with the original Night-blooming Cactus.—Meehans' Monthly.



FIG. 1559.—*CEREUS GRANDIFLORUS*.



FIG. 1560.—*PHYLLOCACTUS LATIFRONS*.

PRUNE roses in spring after the buds have begun to swell. Then you will be able to see where the strongest branches are going to be and can prune intelligently. Transplant in May.—Ladies' Home Journal.

A HEDGE OF RAMBLER ROSES.

THE Rambler roses, beautiful in any situation, are especially so when grown in hedge form.

In place of the stiff looking hedges of evergreen so common a few years ago, those of airy, graceful appearing plants seem more in favor, and no plant yields itself more readily to training than the Rambler rose. The frame for the hedge is the first consideration, and it can be almost any material and made in any form. Perhaps as good a screen as any for the purpose is one like an ordinary grape trellis, made of fence posts and wire. Set the posts eight feet apart. The end posts can be squared and made more ornamental if desired, but after the first year they do not show, so it matters little. The wires should be put on so that they can be stretched when necessary; often they seem quite slack after a season or two, and then we make them taut in this way: Fasten the wires securely to one end post and pass them through all the others; after they are through the last end post wind each wire around a piece of stick which can then be turned around until the wires are perfectly firm and straight. No other fastening is required. The sticks are made from stuff two inches square and are eight inches long. About three inches near the middle of the stick is rounded so

that the wires will wind round it easily, and each spring the sticks can be turned once or twice to keep the wires in good order. Ordinary chicken netting can be used with less trouble at the start, but it is inclined to stretch badly after a few years, and is not durable.

The plants can be set eight feet apart, or midway between each two posts. Fasten the new shoots in place as fast as they get of sufficient length; little pruning will be required, as it is long growth one wants until the hedge is established, but all old rough wood should be removed in the spring, and occasionally the ends of rank growing branches be pinched to cause branching.

The plants are so perfectly hardy that it makes them more valuable for hedges, as often not even the extreme tips of the branches will be killed by freezing. All the varieties are also remarkably free from mildew, which is an added advantage. The flowers have no fragrance, yet bees gather on them in great numbers, probably on account of the bountiful supply of pollen found on the roses. Rose bugs do not molest them, though other roses in the same garden are badly infested. The plants blossom later than the June roses, beginning just as they are almost gone, thus prolonging the rose season three or four weeks.—Vicks Magazine.

THE CALLA LILY.

When the Calla Lily begins to bloom, if the pots are placed into shallow pans of water and left there, the bloom will be found to last much longer, and re-

main more plump and fresh, than where water is simply applied to the surface of the soil.



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.

KIEFFER FOR TOP GRAFTING.—Quite contrary to our expectation, Kieffer is reported by an American writer as poor stock for top grafting. Every graft inserted, he says, died after one or two years' growth.

THE TERRIBLE STORM AND LOW TEMPERATURES which prevailed over the whole Continent in the early part of February has resulted most seriously in the Southern States; playing the mischief with orange and peach orchards, and all kinds of vegetables. Even at New Orleans the temperature fell to 6° above zero.

FEBRUARY NUMBER.—We beg the kind indulgence of our readers over the lateness of February number, which was due to several reasons beyond our control. (1) The lamented death of Mr.

Burns, of the firm of Dudley & Burns, Toronto, who are our printers; a gentleman who has always given a great deal of personal attention to our work. (2) The change of postal regulations which required posting the Journal at Grimsby instead of Toronto, as previously.

KIEFFER FOR EXPORT.—Contrary again to anticipation, this pear has not exported as well as we expected. One lot sent to Bristol in the fall of 1898, only made a net return of about 25 cents per half bushel case.

DEVICE FOR HANGING FLOWER POTS.—Mr. A. H. Myles, of Hamilton, sends us a sample of an excellent suspensor for flower pots, which is at the same time cheap, convenient and tasty. It is made of small sized, polished brass wire, and is ingeniously clawed in such a way

that it firmly grips the pot, which may thus be safely suspended in any part of the room. Mr. Myles writes:—I send you a neat little device to attach to standard pots for the purpose of hanging them up. I find it most convenient in my little Conservatory, where I am short of room.

NOVELTIES—We have an inquiry where in Canada to buy trees of Apples of Commerce, Champion, Delicious, Senator, etc. No, and we hope no Canadian nursery will attempt to sell such untested novelties in Canada, until they have been fruited in our country. These varieties are boomed in the catalogue of Stark Bros. of Louisiana, and of course there are always persons waiting to be caught with humbugs.

A STATE BOARD OF ENTOMOLOGY has been established in Georgia, consisting of the Commission, the President of the State Horticultural Society, and the President of the State Agricultural Society. A State Entomologist has been engaged and all Nursery goods are allowed to be delivered by any transportation company, without a certificate of inspection.

THE BEST SPRAY PUMP—We are constantly asked "which is the best Spray Pump." Each of the firms advertising with us are first class, and each is so continually improving his pump, that now one, now another, might score the highest number of points.

THE GIBSON STRAWBERRY.—A new berry originated on the farm of J. H. Gibson, Marlborough, N.Y. Claimed to be very uniform in size, firm, mild in flavor, bright crimson in color; vines very productive.

SAN JOSE SCALE.—We have received several inquiries from subscribers to know whether any orchards or nurseries in Ontario are affected with this insect. In reply, we may state that about three years ago a committee from our Association found an orchard near the border badly infested. Entomologists were called in and great pressure was brought to bear upon the Government to prohibit the importation of nursery stock from the United States, and to have the infested trees destroyed. In response, the Dominion passed an Act preventing the importation of Nursery Stock altogether, and the Province an Act providing for the destruction of all infested trees. On investigation it was found that a few lots of the Nursery stock imported during the last five years were infested with scale, and some of it had been handled by Canadian Nurserymen. Careful searching enabled the inspector, Mr. Geo. E. Fisher, of Burlington, to trace this stock to the orchards in which it was planted, and his work is being continued on into the year 1899, for the purpose of utterly destroying such trees. Our Nursery men are all wide awake to the danger, and have had their Nurseries carefully inspected; and so far as we know every Canadian Nursery at the present time is free from this scale.





✦ Our Affiliated Societies. ✦

WOODSTOCK, Feb. 1st, 1899. -- The following circular has been issued to our members: The President and Directors of the Woodstock Horticultural Society have much pleasure in submitting to the members for their selection one of the three lists of Plants, Trees, etc., as below. These lists have been carefully prepared to meet the varied requirements of our membership, but it is distinctly understood that no change can be made from the lists, each member selecting one or other in its present form. You will mark the one chosen and return this circular, together with one dollar membership fee for 1899, from those who have not already paid, not later than the 15th inst.

D. W. KARN,
President.

J. S. SCARFF,
Secretary.

LIST No. 1.

- 1 Improved Montmorency Cherry.
- 1 Burbank Plum.
- 1 Yellow Transparent Apple.
- 4 Hersee's new Strawberry.

LIST No. 2.

- 1 Extra fine Canna.
- 1 Spirea "Anthony Waterer."
- 1 French Canna.

- 2 Burbank's select Gladioli.
- 1 Packet each Sweet Peas, Asters and Nasturtiums.

LIST No. 3.

- 1 Kentia Palm.
- 1 Fern.
- 1 New Geranium.
- 1 Tea Rose.
- 1 Hydrangea.
- 1 Fuchsia.
- 1 Canna.
- 1 Tuberos Begonia.
- 1 Tuberos B lb.
- 1 Packet each Sweet Peas, Asters, Phlox Drum, Verbenas and Pansies.

KINCARDINE. -- The draft of by-laws provided by the Ontario Fruit Growers' Association was adopted, with one or two slight amendments. We should have at least one hundred members here. The *HORTICULTURIST* has certainly improved in appearance, and may be truly be said to be the best of its kind published in Canada, and must I am sure be well received by the members of the Horticultural Societies of Ontario. Our president is Mr. S. W. Perry.

JOSEPH BARKER, *Secretary.*

PEAR PICKLES.

WHILE most of the common varieties of pears lack the decided flavor that makes them a choice preserve when used alone, they will be found delicious used in combination with lemon peel and juice or green ginger root. Even hard pears or "wind-falls," pared, cored, filled with sugar and grated lemon rind and baked, closely covered, until juicy and tender, may be canned and kept indefinitely. Gingered pears make a rich sweetmeat.

Peel, core, and cut rather hard pears into thin slices. Allow to eight pounds of sliced fruit eight pounds sugar, a pint of water, the juice and rind of four lemons, and half a pound of ginger root sliced thin. Cut the lemon rind into long, thin stripes and put all together in the preserving kettle. Simmer gently

for an hour, then pack in jars or cans. If the pears used for pickling are Seckels, they do not need paring, but the larger varieties usually do. The stem should be left on but the blossom end removed. As fast as pared drop into a pan of cold water to prevent their turning black. Make a rich syrup, allowing to eight pounds of fruit four pounds of sugar, one quart of vinegar and one cup mixed spices, cassia buds, stick cinnamon, cloves and allspice. Tie the spices in a bag and boil with the sugar and vinegar. Skim thoroughly, then add the fruit—a portion at a time—and cook slowly until scalded and tender enough to be readily pierced with a straw. Skim out the fruit, put in a stone jar or glass cans, boil the syrup a little longer and pour over.—New England Farmer.

↗ Question Drawer. ↖

Apples for Export.

1044. SIR,—From present understanding of the varieties, can you say which would be a good paying variety of undoubted ability to hold its position to meet the market—shipping requirements, etc., etc. You named “Wealthy” once to me. Do you know I think it soft, easily mashed and so on. I can grow them to a fine size, shape and color. I would top graft Tallman Sweet for these, as they are weak in trunk and too low growing. How are Gideon, Longfield, Canada Baldwin? Can I grow the latter? Name any others.

Can you recommend me to plant 25 pear trees or more with the same view. Beurre Bosc seems to give us hope in that direction. I wish to recommend to my neighbors grafting and planting such varieties and numbers, so that we may be able to ship directly to England or sell orchard to exporters, etc.

WM. BACON *Manorfield, Orillia.*

The varieties suggested by our friend, Mr. Bacon, are scarcely to be recommended for export. Gideon is a pretty apple, which originated with Peter Gideon, of Minnesota. It is of the same parentage as the Wealthy, but softer apple and not so good a shipper. It is a fall apple, ripening September and October, of poor quality for dessert purposes, and only fair for dessert. It is of great value in the Algoma section on account of its hardness and productiveness. Canada Baldwin is a nice apple, but too unproductive and too small to be a profitable variety for export; though very desirable for one's own table. Longfield may or may not prove desirable. We have not yet fruited it: but in Algoma it yields heavy crops, and the apple is quite attractive in appearance and of excellent quality.

Peaches for Norfolk County.

1045. SIR,—Will you kindly give me a list of varieties of peaches you think profitable for an orchard, those adapted especially for canning and shipping. The locality is the extreme end of Turkey Point, Norfolk Co., Lake Erie; latitude 42° 38' north; land

15 feet above high water line and adjacent to bay shore, which surrounds it on east and south, and on west is open marsh 1 to 1½ miles, to high bank of main land; on north, thick growth of cedar, pine and red cedar, with maple, elm and walnuts and butternuts.

In this the question of tender fruit buds not important, for obvious reasons.

W. J. McINNES, *Vittoria.*

There has a considerable change come over the views of our peach growers regarding varieties, during late years. For a long time the rage was for early varieties, which were for a time very profitable; but now that Southern and California peaches come into our Province in such abundance in the early part of the season, our own early clingstones—such as Alexander, Hale's Early and others, have been less and less in demand. Fine late varieties, which come in when the imported varieties are about over, are therefore much more desirable for us to grow in Canada. Certainly we have little use for Alexander, Amsden's June, Louise, Hale, and such varieties which hardly ripen before they rot; and when they ripen, have so little quality. For home markets, the following are good:—Rivers, Barnard, Early Michigan, Elberta, Gold Drop, Kalamazoo, Old Mixon Smock Free, Stump the World, Stevens' Rarierpe.

Spraying.

1046. SIR,—Are there any new developments in the spraying world that I may take advantage of on your advice? Which is the best spraying machine? I would like to spray potatoes as well.

WM. BACON, *Orillia.*

The excellent article by Mr. W. M. Orr, in our January number, will in part reply to our correspondent's in-

OPEN LETTERS.

quiry. It seems conclusively proved that spraying and thinning pay. We must use every means to produce high grade fruit and to cease growing poor stock.

The best Spray Pump makers advertise with us and we cannot undertake to say which is the best. Each maker is constantly making improvements, and each have special advantages to offer.

* Open Letters. *

Appreciated in Africa.

SIR,—I am very well pleased with your publication and quite look forward to its arrival and enjoy the reading, which is at times very instructive, for although our climate is very different from yours, we have the same pests to contend with. I had a very good fruit garden where I lived last, but am now quite a statist regarding fruit, etc. Am grafting most of my apples on to pear stocks instead of quince, or apple, as I am of opinion they will be less liable to blight. I find dressing for destruction of apple bug, with Calvert's Carbolie Soft Soap, about as efficacious as any other wash. Wishing you the compliments of the season, I am, yours faithfully,

A. VINNICOMBE,
Kokstad, Cape Colony, Africa.

Apples for Glengarry.

SIR,—In the last HORTICULTURIST you

give, in reply to L. Wiegand, a partial list of hardy fruits. We have a cold climate here, but seldom down to 40°, but still it sometimes is, and we have it below 30° every winter, on some occasions; so we need hardy fruits. I do not know anything about plums or pears, but do about apples, as I have taken quite an interest in them and small fruits for thirty years. You can add the Peach apple to your list of early ones, as it is nearly if not quite as hardy as the Duchess and ripens about the same time, and for home use is a better apple. Then, for a fall apple, the St. Lawrence has no peer and is really a native seedling; for early winter, the Fameuse, McIntosh Red—also a seedling and a little better keeper than the Fameuse. These two are about the best apples you can get and are perfectly hardy. I have known the Pewaukee for about fifteen years and so far it seems perfectly hardy, is a good bearer of good apples that keep till June; and the Golden Russet does very well here, and so does the Winter St. Lawrence. I am not writing this for publication, but you can do as you please about adding any of the names to your list.

A. HARKNESS, *Lancaster.*

PLANNING HERBACEOUS GARDENS.—While most herbaceous plants can be safely transplanted at any season, the best immediate results are obtained from early spring planting. It is therefore quite appropriate to lay plans at once, that orders may be sent in good time, and the stock received for early planting.

There are constantly improvements in garden flowers, as instance the double rudbeckia, Allegheny Hollyhock,

Napoleon III pink, Japanese, Irish, e.c., and these properly claim every one's attention; yet there are also many old-fashioned, well-known flowers that must not be forgotten. What garden is complete without the fox-glove, anemone, columbine, aster, chrysanthemum, larkspur, bleeding-heart, day-lily, flag, lavender, lily, forget-me not, pæony, poppy, phlox, pyrethrum, golden-rod, spider-wort, veronica, periwinkle, and scores of others?—Meehans' Monthly.

The Crocus's Soliloquy.



DOWN in my solitude under the snow,
Where nothing cheering can reach me ;
Here, without light to see how to grow,
I'll trust to nature to teach me.

I will not despair, nor be idle, nor frown,
Locked in so gloomy a dwelling ;
My leaves shall run up, and my roots shall run down,
While the bud in my bosom is swelling.

Soon as the frost will get¹ out of my bed,
From this cold dungeon to free me,
I will peer up with my little bright head,
All will be joyful to see me.

Then from my heart young buds diverge,
As rays of the sun from their focus ;
I from the darkness of earth will emerge,
A happy and beautiful Crocus !

Gaily array'd in my yellow and green,
When to their view I have risen,
Will they not wonder how one so serene,
Came from so dismal a prison ?

Many perhaps, from so simple a flower,
This little lesson may borrow ;
Patient to-day, through its gloomiest hour,
We come out the brighter to-morrow.

"The Saturday Magazine," February, 1836.

* I came across these lines in an old volume of *The Saturday Magazine* of 1836. I was only three years old then, but since I have always had a few Crocuses growing in my lawn.

C. J. FOX, DELAWARE.

