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LOW 8

The
CANADIAN + HORTICULTURIST.

PUBLISHED BY
**THE FRUIT GROWERS' ASSOCIATION,
OF ONTARIO.**

D. W. BEADLE, Editor.
ST. CATHARINES. - - ONTARIO.

No. 5.

1884

Vol. VII.



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The Canadian Horticulturist

PREMIUM LIST.

ARRANGEMENTS have now been made whereby special inducements can be offered to the Friends who will help to increase the number of Subscribers.

To any one sending to the Editor, D. W. Beadle, St. Catharines, *Fifteen Dollars* and the names and post-office address of fifteen new subscribers for this year, 1884, he will send by mail, post-paid, a copy of *Saunders' Insects Injurious to Fruits*. This is a handsome work, illustrated with 440 engravings, containing 436 pages, bound in extra cloth. Price, \$3.

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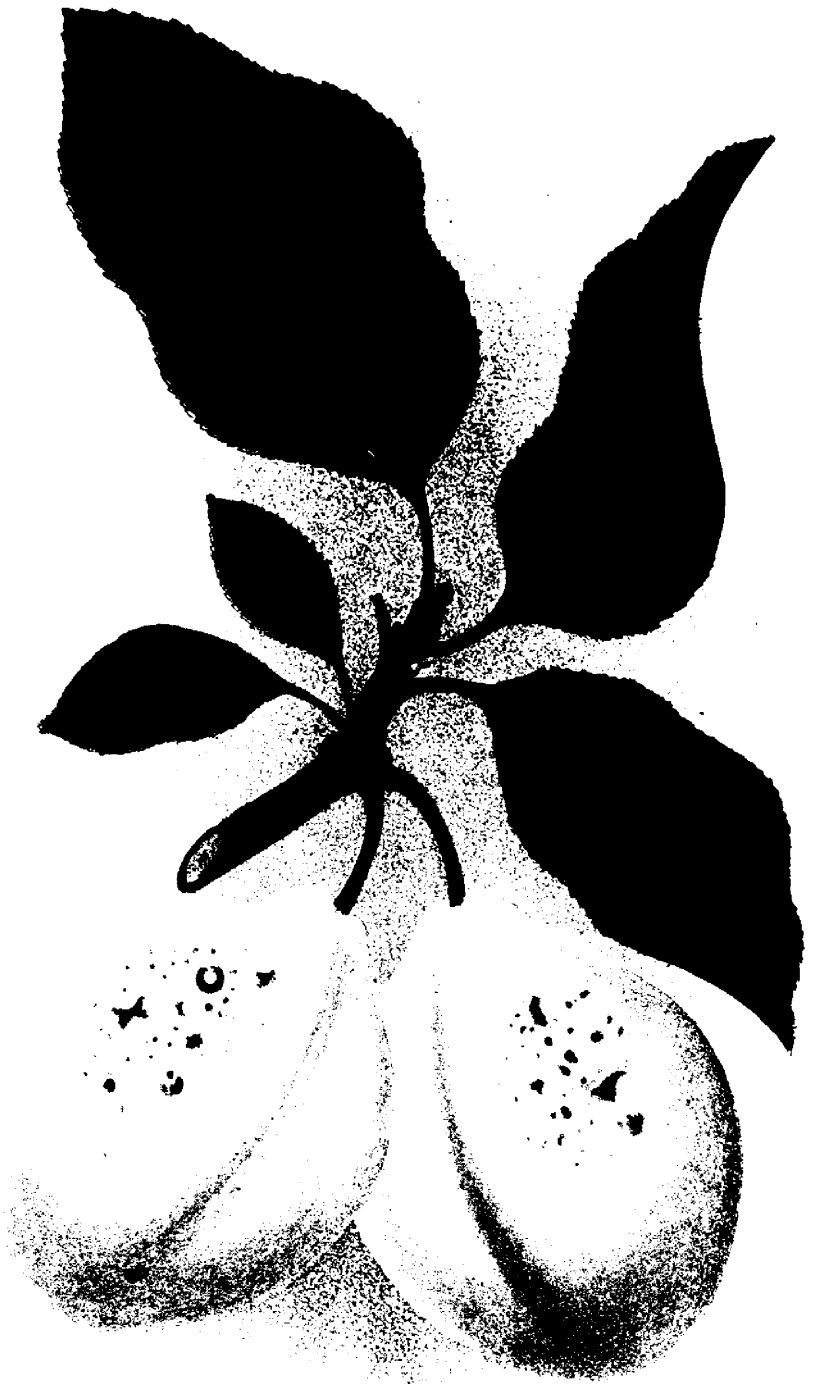
For *Five Dollars* and five new subscribers he will send, post-paid, *Every Woman her own Flower Gardener*, written by a lady, containing 148 pages, neatly bound in cloth, price, \$1.

For *Four Dollars* and four new subscribers he will send by mail, post-paid, carefully packed, in the autumn, three yearling trees of new Russian Apples, and for *Two Dollars* and two new subscribers he will send one yearling tree of a new Russian Apple.

Every subscriber whose name is thus sent to the Editor, will receive the *Canadian Horticulturist* from the first of January, 1884, the Report of the Fruit Growers' Association for 1883, and the subscriber's premium. The premium will be sent to subscribers in the fall, as soon as the plants can be safely removed. The list of subscriber's premiums will be found in the January number of this year.

WM. SAUNDERS.

PRESIDENT.



YELLOW EGG PLUM.
PAINTED FOR THE CANADIAN HORTICULTURIST

THE
Canadian Horticulturist.

VOL. VII.]

MAY, 1884.

[No. 5.]

THE YELLOW EGG PLUM.

The colored plate which accompanies this number is an excellent representation of a very popular plum. It has been very generally disseminated throughout our Province and has been found to be specially adapted to strong soils that are well drained. In soils that are damp and cold it does not thrive well. Nor does it seem to fruit in sandy, light soils as well as do many other varieties, the plums frequently dropping from the tree in such soils before they are ripe, although not injured by insects.

When well grown the fruit is very large, oval in form, narrowing considerably at both ends; and of a clear yellow color, overspread with a delicate white bloom. The flesh is yellow, adheres firmly to the stone, and when ripe is sweet with a mingling of acid sufficient to make it an excellent cooking plum. It is much in demand for canning purposes, making a desirable, and at the same time an attractive fruit when thus preserved for winter use. It is hardly good enough in quality or fine enough in texture to rank as a dessert plum,

but for cooking purposes it has on the whole but few equals.

There is no doubt but that plums can be profitably grown for market, if the cultivator will only give them the requisite attention. The ground in the orchard must be kept well fertilized and free from grass and weeds; and in those parts of the country where the curculio abounds, the process of jarring the trees and catching and killing the insects must be resorted to, in order to secure a crop of fruit. Unless the ground is well cultivated and enriched the leaves will often drop prematurely from the trees, in which case the fruit will not ripen perfectly. It will also be necessary to keep up a sharp look-out for the black-knot, and to become acquainted with its appearance in its incipient stages, so that it may be promptly cut out as soon as discovered and before it has burst the bark of the tree and begun to turn black. By prompt excision and removing the affected parts from the orchard and burning them so as to destroy all germs that could spread the trouble, this enemy to plum culture can be successfully kept in check.

REPORT FOR 1883.

I am very sorry to be compelled to say that the Ontario Government has decided not to bind the report of the Fruit Growers' Association, having been seized with a fit of *economy*. Your President remonstrated with all the earnestness and arguments at his command, but to no avail. We had been advised that Government had decided that all reports of such great practical value should be bound, but we are now shown that governments are not always of the same mind. It is a great disappointment to us all, but your officers were unable to change the decree. The report is now being mailed to members in paper covers.

D. W. BEADLE,
Secretary.

THE CANADIAN HORTICULTURIST.

OUR PREMIUMS.

Please examine the premium list for subscriptions which you will find on the cover. By a little effort you can secure for yourself a copy of the best book yet written on *Insects Injurious to Fruits*. It will be a handsome ornament to your library and invaluable as a helper in fighting the insect pests that spoil your fruit.

As an expression of appreciation of the services of those ladies who may take a little time to help to increase the number of subscribers, we offer two books especially designed for ladies, filled with just the information often wanted, one of them written by a lady.

The other articles offered are well worth the little effort needed to obtain them.

QUESTION DRAWER.

CURRANT CUTTINGS.

I have a few small bushes of Fay's Prolific red currants. Wishing to get into stock as soon as possible, I cut off the new wood last fall, and buried it in the garden, intending to cut it into single buds and plant out next spring. I fancy they would start as easily as grape-vines often so treated. Would it be best to plant in the hot bed or a sheltered border, and how deep; or would it be safe to plant as cuttings in the usual way? Will you or some of your readers please answer?

Aultsville.

JOHN CROIL.

ANSWER.—We have not had any experience in growing currants from single eye cuttings. We should prefer to plant the cuttings in the usual way, believing they would make much stronger plants than from single eyes.—EDITOR.

PEAR RUST.

I have two Flemish beauties which rust every year so bad that they are of no use at all. They turn black, and the leaves turn bronze colour, but don't kill the wood at all. Please answer through *Horticulturist* if any remedy at hand.

Yours,

Kingston.

W. A. CHESTNUT.

Will some of our readers who have had experience please reply.

QUESTION DRAWER.

1.—How soon may I usually safely uncover my grapes in a cold grapy?

2.—I observe that it is generally recommended that outdoor grapes should be covered with earth. Is earth better than manure, and if so, why? R.

ANS. 1.—As soon as the weather is warm enough to cause the vines to grow.

2.—Manure is apt to harbor mice.

GLORY OF THE SNOW.

The *Chionodoxa Lwiliæ*, which is the botanical name of this charming spring flower, is a native of Asia Minor, and is nearly allied to the genus *Scilla*. Its azure blue flowers with pure white centre are produced with the earliest opening of spring while snow lingers yet in many sheltered spots.

For outdoor culture the bulbs should be planted from one to two inches deep,



GLORY OF THE SNOW.

In October, in rather light soil where there is no danger from stagnant water. The bulbs, although hardy, will flower much better if lightly mulched during winter. To produce best effects they should be planted rather close together and left in the ground undisturbed for several years.

They are also well adapted for pot culture in the house, requiring about the same treatment as *Crocus*.

FLORIDA IN WINTER.

(Continued from page 80.)

The interesting feature of St. Augustine is its antiquity. It was founded by the Spaniards under Menender in 1565, more than half a century before the landing of the pilgrims on Plymouth Rock. Menender! what memories are stirred at the mention of that name. How the blood curdles with horror, even after the lapse of more than three hundred years, at the atrocity which could coldly massacre a shipwrecked enemy that had placed themselves by surrender helplessly at his mercy. Time will never wipe from that name the stain of infamy with which it has been imbued by his cruelty.

The town yet retains the appearance of some ancient Spanish settlement. Many of its streets are narrow, varying from ten to twenty feet in width, and the balconies, projecting from the upper stories, almost meet over the roadway. The style of architecture is very quaint, carrying one back towards the middle ages. The old cathedral, which fronts on the public square, with its quaint, moorish belfry and chime of bells, and sun dial instead of clock, is one of the relics of by-gone days, having been built in 1793. Over the chancel is a painting which represents the first celebration of mass in St. Augustine on the 8th of September, 1565. In the square there yet stands the market building, where in slavery days slaves were sold at auction to the highest bidder. What, if it could speak.

We were shown an old building on St. Francis street, by the side of which a date palm tree bent over the street, which was said to be the oldest building in the place. Date palm trees were quite numerous in the town, some of which gave evidence of having borne fruit recently, by the fruit stems yet visible at the top. The accompanying

cut represents a group of date palms, whose long, slender trunks, crowned

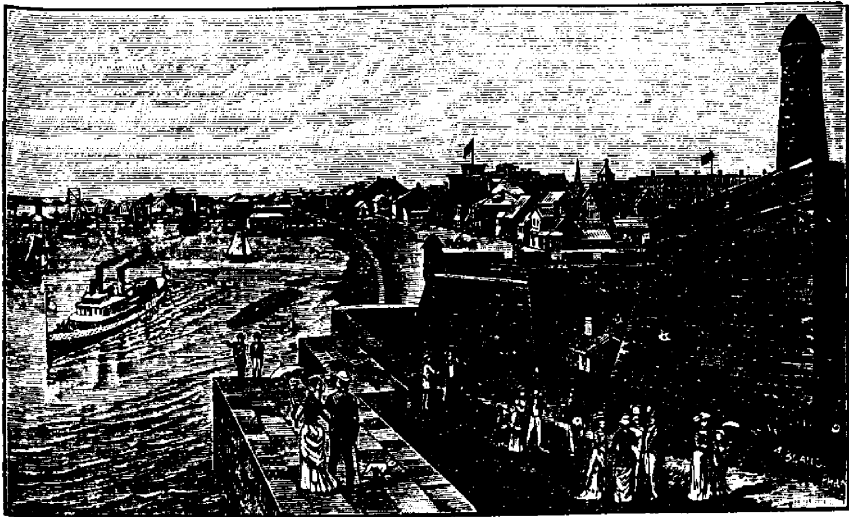


DATE PALMS.

with waving plumes of drooping, feathery foliage, form an interesting object to one quite unaccustomed to the sight of tropical vegetation. Near this old and now almost ruined building, we encountered a yoke of oxen hitched to a cart, which gave us our first and abiding impression of the cattle of Florida. We stood and looked at them with a sense of bewilderment. Where were we? Was yonder water the Nile? Had we been looking at the pyramids? Were these the kine that Pharaoh saw, that had eaten up the fat kine, and still were ill-favored and lean? Doubtless they were; for never, no never, had such a vision of life and death, of mov-

ing bones and horns and hoofs ever passed before mortal vision. But future observations dispelled the illusion. We saw many more cattle during our further explorations in Florida that were just the counterpart of these. They were frequently to be met with standing nearly leg deep in the river, feeding upon the weeds that grew at the bottom. Poor brutes. There was no grass upon this sandy soil, hence the river bottom was their only pasture ground.

St. Augustine stands upon a narrow peninsula, with the Matanzas river on the east and the St. Sebastian on the west. Across this peninsula a wall was built by the Spaniards as a defence, through which a gateway gave access to the city. The wall has disappeared, but this city gate yet stands in some measure of preservation, and forms an interesting relic of the past. Of all these relics of an older time the old Fort is the most attractive. It is said to have been more than a hundred and sixty years in building, having been commenced in 1592, only one hundred years after the discovery of America. Its stone walls were laid in the sweat and groans of slaves and prisoners of war. It had its moat and drawbridge, its sentry towers and bastions, and its dungeons too. I crossed the moat and passed within its massive arched entrance; looked into the rooms once occupied by mail-clad tenants, stepped into its donjon keep, and groped my way around its dark, dismal inner prison, where, it is said, were found within the present century human skeletons in cages. I climbed up the stone stairway, that has echoed to the tread of armed men that have been sleeping for centuries, and, walking along by the parapet, climbed the tower at the north-eastern angle, and looked out of the window towards the sea. The old fort is slowly crumbling to decay; it has no place in modern warfare. It



is of the past—the strange, weird, sombre past. One cannot go through its now untenanted rooms, so dark and dismal, and listen to the echoes of his own footfall as they die away among those vaulted arches, without thinking of the time when these rooms rang with the shouts of soldiers in their coarse revels, and these cells echoed back the groans of the suffering and the dying.

The sea wall runs from the fort southward along the front of the city. It is built of stone from the island opposite, known as Anastasia Island, and is covered with a granite coping four feet in width. It is the favourite promenade of visitors, and on moonlit evenings at this season of the year is thronged. At the southern end of this wall are the U. S. barracks, once, in part at least, a Franciscan monastery.

Our cut shows the eastern side of the old fort, San Marco, with the tower at its north-eastern angle, and its irregular, broad sea wall, from which runs the city sea wall for nearly a mile to the southward.

Having taken a survey of this curious old city, your explorers drove out to one of the commercial gardens. We entered by an avenue of palmetto, interspersed with date palms and bordered with junipers. Here we found our ever-blooming roses, such as Solfaterre, Niphetos, Marechal Niel, &c., which we are compelled to house so carefully at the approach of winter, growing in the open ground all the year through. They were well filled with flowers, but lacked the luxuriance of foliage and growth we are accustomed to see. But at this we did not wonder; the wonder was that they should grow at all in this pure sand. We found growing here large numbers of amaryllis, and concluded that the market for this plant must be remarkably good. Here, too, was the finest avenue of oleanders that one can imagine. We did not learn their age, but they rose to the height of ten or twelve feet on either hand. In a few more days the flowers just coming into bloom will be open, and then this avenue of oleanders will be a sight to see. Our inspection of the vegetable department was but passing; the plants had

a poor, starved look, at which, as we looked at the soil, we did not wonder.

Of the business done here there is but little to be said. We were told there was no business in summer; in winter the business was to entertain strangers. To-morrow we return to Toccoi, and take the steamboat for a further trip up the St. John's River.

KEEPING APPLES.

MR. EDITOR.—I send you to-day four specimens of Greenings, two of which were kept in the ordinary way in closed barrels. You will notice how badly they are discoloured. One might almost imagine they had been designedly bruised all over. The other two bright fresh-looking ones were kept in what are known as the "Cochrane Cases." Had our cellar been sufficiently cool they would have been firmer than they now are.

These cases are made of slats of wood nailed together in box form, being about 21 inches square on the top and 12 inches high. They are made of slats placed about half an inch apart, so as to allow the free admission of air to the inside. Their interior is filled with pasteboard compartments arranged in a manner similar to an ordinary egg case, with the exception that each section has a small notch cut out of each side, thus enabling the air to have free access to every part of the case. These small compartments are made of various sizes to suit any sized fruit that it may be required to pack in them, and as each specimen of fruit occupies a separate paper compartment they do not touch each other.

Consequently, should any one of the specimens packed chance by any means to decay, it will not spread the contagion to any other portion of the case. Should any of your readers desire to prolong the keeping season of any par-

ticular variety of fruit, I know of no way so calculated to assist him as the use of these "Cochrane Cases." I this year experimented with them in endeavouring to keep the Large Red Wethersfield Onion, but, owing to our cellar being a little too warm, it was not a complete success; yet still it was by no means a failure. I purpose, however, making a more careful test next season, which I trust will meet with gratifying results. I shall report in due course as to my success or failure. It is perhaps pertinent to add that the principal drawback to the employment of these cases to a very large extent is their cost, seventy-five cents being the price asked for each in Montreal. It must, however, be remembered that with careful management they will last for several years, so that in the end they will not prove so expensive as one might at first imagine.

A. A. WRIGHT.

Renfrew, April 3rd, 1884.

EARLY-RISING SAP.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST:

SIR,—In the March number your Muskoka correspondent, T. A. H., says that a friend of his is of the opinion "that it is not altogether the hard winter's frost that damages the fruit trees here in the north so much, as that the ground here seldom freezes hard on account of the heavy snows, causing the sap to start too early and thereby get a severe check."

To his friend's opinion I can add a friend's observation. On a village lot, undrained, and of heavy clay, this friend has had very fair success in growing apple trees. He mulches heavily, and to this, in talking to him last summer, I attributed his success. "Yes," said he, "and I believe that the mulching has an effect which I have never

seen mentioned in the journals. I think it prevents the ground thawing out too rapidly in the spring, and consequently the sap does not rise too early."

This not only corroborates T. A. H.'s idea, but suggests a remedy.

Renfrew, March 24, 1884. W. E. S.

MANN AND ONTARIO APPLES, &c.

MR. EDITOR,—Our facetious friend Croil, with his rusty pen, pretends to take umbrage at the article you endorsed in February number of *Horticulturist*. I wish I could write with a new pen as well. As fruit is our hobby I will try to say a little on this subject as it is your wish that the members should add their mite. Three years ago this spring I grafted a few scions of the Mann apple on a bearing tree. I have had a good crop of them for two years. It seems to be a very early bearer. The fruit is of fine flavor; of large size, and a good keeper of the most perfect shape. I think this variety to be a very valuable fruit. It is an apple of which we see very little, comparatively new in this section at least. Now for my report of plants received. Since I last wrote the Ontario apple has fruited. The year before last the fruit was of good size, but it seemed to have a fault of falling from the tree with the wind before ripe, although not in an exposed situation, so that I had not a single good specimen. Last year it did not fruit, but the tree is a good grower and a fine tree. The Saunders raspberry, No. 50, I think, a purple berry, I find to be a great cropper, but as for the quality I cannot say much in its favor; it is tart and soft, but the quantity makes up for quality. Moore's early grape has done pretty well. I can't say much at present of the Worden, as I only got it last fall.

Yours truly,

WALTER HICK.

APPLE TREES—McINTOSH RED.

MR. EDITOR,—I now pen you a few things respecting fruit growing. I have had a small nursery for fifty years or more, and gave much thought on fruit growing, and the cause why so many trees failed, &c. One year ago I sent you a few reasons why so many fruit trees failed, which I will not speak of now. It is asked, what is the disease, or cause, why on so many fruit trees, the bark dries to the wood on the trunk, and in some cases the bark dries around the tree in one summer.

THE CAUSE.

In some way the tree has got a clip, and the sap and soft wood under the bark is bruised, is killed if the bruised sap does not dry out in one day or so; the bruised sap with the heat of the sun will sour or ferment, then it acts like a leaven, it will sour the live sap next to it. If the sour sap is not dried up with the heat of the air it will continue to sour the live sap next to it, until it encircles the whole tree.

NOW THE REMEDY.

When you see on the trunk of your tree a dark or dried spot in the bark, take your knife and cut between the dead bark and the green, one-eighth of an inch wide, which will prevent the sour or dead sap coming in contact with the live sap or wood, that will stop its travel. Again, there is a limb blight, in some cases, a limb by the changeable winter, nearly all the sap freezes out of it, the wood turns black or dark, the sap nearly killed, it grows through May, the heat of the June sun sours the almost frozen to death sap, and the result is, the limb withers and dies; it acts on the limb the same as it does on the trunk of the tree with the bruised or dead sap.

Cut off the limb up to the live bark and then the dead sap can do no more harm.

How is it, I see in your Magazine, where some name over the trees they call "hardy," few there are that bring in the list, the McIntosh Red; are they not known in western Ontario. If they are not they should. I am the owner of the original McIntosh Red tree, and farm, given me by my father 48 years ago. The tree is now over 80 years old. I have lived 70 years by it within 40 feet of it. It is still doing well. I have grafted from it more than 50 years ago into other fruit trees, they show themselves vigorous growers yet, and bear equally as good fruit as the old mother tree. I have an orchard of 1300 trees, budded from the old tree. I here state fearless of successful contradiction, that the McIntosh Red, in eastern Ontario, eclipse all other fruit trees for hardiness and longevity, they are a winter apple, and none to equal them in the market. Thereby they cannot be known in western Ontario. They should be known for the benefit of fruit growers. Every fruit grower should go largely into them.

Yours fraternally,

Dundela. ALLAN MCINTOSH.

NOTE BY THE EDITOR.—McIntosh Red is known in western Ontario, but the fruit is so very subject to the black scab, that it can not be profitably grown at present. Perhaps our committee of investigation will find a remedy.

VALUABLE SEEDLING APPLES.

MR. EDITOR.—I am pleased to see that the *Canadian Horticulturist* bids fair to become a success and a boon to the fruit growers of British North America. The fact of the introduction of the Russian fruits into Manitoba and other northern sections will surely add a stimulus to those who locate in such places, to become subscribers to the *Canadian Horticulturist* at once, for in

its pages will be found the best possible information for all new comers and for those particularly who are enthusiasts in growing fruits and flowers. The emigrant should be posted in what variety of the different fruits, both large and small, will be best adapted to his immediate locality, with the name of each variety; this the *Horticulturist* will give him from time to time. Many correspondents who contribute to its pages are practical men, who have spent nearly a life time in fruit growing and now possess a capacity to give valuable facts on these subjects. The look out is now very favorable, the art of Hybridization is being taken up in good earnest, and is so nicely manipulated as to insure hardiness, productiveness, and improved quality in the offspring—the benefits will be very great indeed—and such a thing is now quite feasible.

There is another source from which we may obtain valuable apples for the north—I mean the old orchards of Ontario, many of which were planted nearly a century ago, raised from seed planted in the garden and after growing two or three years, taken up to form orchards. There were no nurseries here then, where grafted trees could be procured, consequently, the old orchards are all seedlings, and in their numbers some first class apples may be found, unlike any now grown in our nurseries, and should any worthy of cultivation be discovered, their cultivation could be commenced at once, as their adaptability to climate cannot be questioned. In conclusion, I will give my opinion on the apples of the Pioneer orchards of Ontario, many trees of which are now to be found of robust size, healthy, strong and exceedingly productive and on an average three or four trees in an orchard may be of great value to some part of our wide spread country. My reason for thinking so is this—apple trees which have passed through so

many summers' heat and winters' cold and still continue vigorous and bear annually large crops of good fruit should be looked after. Mr. Editor I suggest that a place be given in our prize lists for the best seedling apples of our old orchards both for autumn and winter varieties—this may have tendency to bring out something really good.

Most respectfully yours,

WM. H. READ.

"Elm Wood," Port Dalhousie, Ont.

TRAP TO CATCH THE COBLIN MOTH.

SIR,—In the year 1879 I procured an oil barrel for house use, and to cure it from taste and smell of the oil the idea struck me that the best method to carry that idea out would be to keep it filled every day with whey until the following morning, then to feed to the pigs, then refill and leave until the following morning, &c. I filled to about two inches of the brim for the whole six months, commencing about 1st May, and caught every kind of moths on the balmy and calm nights, not taking thought that I was destroying the apple moths, but thought I was seasoning my barrel, which I did all right, and destroyed the moths as well, and freed the apples from worms at the same time, which had grown very bad, there being hardly an apple but had a worm in it. In the year 1881 I had no whey; result in 1882 some worms. Then I understood that the whey was the trap that caught the moths and freed my orchard from worms. I have set the whey trap ever since, and have never seen a worm in an apple. Set your traps in the orchard about two feet or so high. The odour of the whey must be seen to, and the trap or dish filled to within two inches of the brim.

Now, sir, I do not claim any merit; it happened purely accidental so far as catching the apple moth is concerned.

Any person acquainted with the apple orchard knows what a peculiar perfume or odour there arises from the blossoms, and how the moths flutter among the trees and branches at that time on balmy evenings; so I think the odour of the whey attracts them, and they light on the whey in the dish and are caught. In closing, I would ask all persons using whey for pigs' feed to try it, and report results to the *Horticulturist*. If they will persist in using it right along they will catch their neighbours' moths as well, if close to them. Please publish this in your May number for the use of all those who use whey for pigs or calves, and who wish apples clear of worms.

Yours truly,

JOHN MCINTYRE,

Reeve, Tp. Ekford.

Appin, Ont., March 31, 1884.

THE BARK-LOUSE.

MR. EDITOR,—We take a great number of papers, and this year I did think of stopping some of them, but I could not help sending the dollar for the *Canadian Horticulturist*. We get a great deal more than the worth of our money, for I like the *Canadian Horticulturist* very much. You may send us the flower seeds. I would have liked the C. Baldwin, but my apple trees are getting so bad with the bark-louse that I am getting almost disheartened. I wash, then scrape, then put soft soap, lye, and everything I can think of on the trees, but they have got out to the ends of the limbs, where I can neither wash nor scrape them. They have killed all our black currant bushes, and have got on to some Mountain Ash trees I have got, and also some wild plum stocks I had for grafting on to. I have cut down some Early Harvest trees altogether; after the louse gets to the end of the limbs they commence to die. Plumbs

have done well with us till last year, when there came a blight on them about the middle of summer and killed some altogether. Still the light-coloured plumb was not so badly affected; but the frost came and killed them just as they were about ready to pull. The Lombard and Duane's Purple suffered most by the blight.

DAVID SAUNDERS.

Kemble, Ont.

BLISS' AMERICAN WONDER PEA.

I sowed $1\frac{1}{4}$ bush. of these peas last spring. The crop was not large, but under the circumstances encouraging. I planted with a hand sower. The machine, or perhaps rather its manager, didn't work well. In spots they came up too thick, in others too thin, and planted in drills two feet apart covered nearly an acre of ground. Probably off one half the quantity of ground at one foot apart I would have had better peas and more of them.

Owing to the unusually wet season they were badly damaged in harvesting; many of them sprouted, more of them so much blackened as to be unsealable. I sold 10 bushels for \$50, the seedsman pronouncing them to be a first-rate sample. This appears to be the best dwarf pea in the market, and is likely to take the lead for a long time. Arnold's \$1,000 a bushel pea may be better, but we have yet to know it.

ONIONS.

I had a strip on a piece of ground 30 x 150 feet, sowed thinly, in rows two feet apart. These, too, would have yielded the double if sowed at half the distance. I had 23 bushels, all large, upwards of 200 bush. per acre. Kind, large Red Wethersfield. The land was not rich, but manured with wash from the barn-yard.

JOHN CROIL.

Aultsville.

LADY WASHINGTON APPLE.

To all fruit men, and whoever it may be, I intend to make known in the way of an apology that the apple which is getting familiar, in the United States as well as in Canada, under the name of Hoover's Favorite, has no just claim to the name. Its original name is Lady Washington, which will be found recorded in the report of the Fruit Growers' Association of Ontario for 1879, page 58. I am now informed from an old fruitman from New York State that there is already two or three kinds of Hoover apples described; I suppose not only described, but perhaps offered for sale. Perhaps it would do some service against fraud by describing the habit of the tree, and also the fruit. My trees are all top-grafted. They don't grow a very neat head; rather crooked limbs, stubby when old, fairer-looking when young, bark soft and yellowish. The fruit generally is of a good size, varying much in colour—some nearly white, others turning to yellow, others again having a fine rosy blush on one side; juicy, white flesh; slightly acid, fine flavour; first-class winter fruit. This is a short sketch of my favorite apple. Note, I never really intended to name it after myself, but by my showing these lovely apples to friends and strangers, I did always say that this kind is my favorite apple, and then from other people from time to time the present name of Hoover's Favorite (or the Hoover's) was altogether applied, without any regard of its old name of Lady Washington, which I generally gave as its original name, and which has been known for years gone, and the word favorite will only be used by me and whoever chooses it as a fancy name. Will you kindly find space in your valuable monthly to in-

vert the foregoing apology and sketches, to stop confusion in wrong names.

D. B. HOOVER.

Almira, Ont., April 1st, 1884.

ON GRAPE CULTURE.

My plan is to have the rows nine feet apart, the vines five feet apart in the row. Take two stakes, or posts, bore $1\frac{1}{2}$ inch hole for a leg, a little slanting, so as to cause the post to lean when the leg is in the post, with three poles to be nailed on the posts for the vines to climb on, but the leg to be loose, so that it can be pulled out of the post easily. Lay the two posts with the foot end in line with the vines, or row; lay on the three poles at regular distances apart, and spike them to the posts. This do the whole length of the row. Then one take hold of the top pole in the centre and lift it head high, and another stick in the two legs and let it stand. This do the whole length of the row. The vines tied to the poles, they will soon tie themselves. In November cut all off above the top pole, and, if needed, thin or cut off the vines on the poles when they become thick. The hardy vines put in rows by themselves. When trimmed, do as directed. Two must be employed, as directed above; one take hold of the top pole and lift it, the other pull out the legs of the posts and let the posts and the vines to the ground. This do the whole length of the row. In this way two men can put up or take down one acre in a day. The hardy grapes need no more covering than the snow. The tender vines when put down as directed above need to be covered with pea-straw, or its substitute. From long experience I consider it pays to cover all kinds to ensure a good crop. The straw can in the spring be put by the vines to

manure them. In Eastern Ontario only the Concord and the hardy grapes pay the grower.

ALLAN McINTOSH.

Dundela.

FRUIT GROWING IN THE NORTH.

GRAPES.

MR. EDITOR,—My experience with grapes, like that with apples, only runs back a very few years; and yet in that short time I have formed some very decided opinions. I am satisfied that as grown in this part of the country the Clinton and the Champion are not fit to eat, and that any hybrid with a foreigner for one of its parents will not pay to plant. Sour grapes, such as those named, are not suitable for the north, because the less sun our vines get the less sugar the fruit will contain. This is unfortunate for us, as the Champion is the only grape that is quite sure of ripening.

I have been agreeably surprised to find that vines flourish as well as they do on my grounds. I attribute this to the perfect natural drainage, and the existence of considerable limestone in the soil; in fact, my success with plums and grapes has been much more encouraging than has my experience with apples. A heavier soil would, I believe, grow more wood, but I find the sandy and gravelly loams conducive to fruitfulness; and the readiness with which my layered vines take root, and the disposition the young layers evince to bear fruit the first year—I actually had one layer that bore nine small bunches the year it was planted—shows that the elements necessary for a healthy growth are present in the soil. And here let me say that I wish your correspondents, when relating their successes or failures, would state the conditions as to soil, drainage, etc., under which such results are achieved, so that we might begin to learn what

surroundings are most desirable for particular kinds, as well as particular varieties, of fruits.

In grapes, I have the Delaware, Concord, Clinton, several of Rogers' Hybrids, Burnet, Brant, Martha, Rebecca, Prentiss, Vergennes and Worden. The three latter have only been one year planted, so can say nothing about them from personal knowledge. Martha and Rebecca have fruited, but the two last seasons were so unfavourable for ripening that no judgment can be formed. Burnet fruited for the first time, and set more fruit and better bunches than I have seen it do elsewhere, but did not ripen; I class it along with Rogers' Hybrids, as not being worth cultivating for profit; they set such poor loose bunches that the berries are not near enough together to keep each other warm, and so few of them that they will not pay for the ground they occupy; and if any leaf-blight, or disease of any kind, makes its appearance in my vineyard, it is sure to be these half-bred foreigners that are affected. I have seen the Burnet set one, two or three perfect berries on a bunch, and the rest nubbin; and this is the case every year on the grounds of a gentleman in this town; it arises, I believe, from imperfect fertilization, and where it has set more perfect bunches, as it did with me, it may have arisen from the proximity of other vines flowering at the same time that supplied the necessary pollen. The fruit of Rogers' 9 and 15 and Burnet is so good that I should be sorry to destroy the vines, but I must see better results than I have done before planting in quantity. The earliest vine I have is the Brant—I have none of the Champion—I was induced to plant them by the emphatic recommendation it received from a Mr. L. C. Whiting, of Michigan (see Report of Ontario F. G. A. for 1878, page 44),

comparing it with the Delaware. He says: "The Brant is a better grape; it is two weeks earlier, less subject to rot, will keep well three to four months, has more healthy foliage, stronger roots, and will succeed with half the care of the Delaware." If he had omitted what he said about its being a better grape, the rest might all be true; it is with me the most rampant grower I have ever seen. But to complete the picture he should have added: "It is not fit to eat till it has been frozen, and would not be eaten then by those who could get anything else, always providing that the "anything else" is neither the Champion or the Clinton. It might make good wine; I see nothing to prevent its being better than the Clinton for that purpose—though the Clinton is considered a wine grape—for with me it is more palatable for eating, more productive, has larger berries and larger bunches.

I have more Delaware and Concord vines than all the rest put together, and my experience is that for profit the Delaware is head and shoulders above them all. I had been led to expect that nothing would beat the Concord for productiveness, and that if it brought two or three cents per pound less in the market it would still pay the best; but this is not my experience. My vines have none of them been planted more than four years, but the Delaware shows more foliage, fill up their trellises better, and have produced double the amount of fruit, vine for vine, as compared with the Concord, planted at the same time, and the fruit brings a better price. They are nearly or quite equal in flavour to the best of Rogers', and though they do not colour any earlier than the Concord, they are certainly the first that are fit to eat; at the same time for hardiness and healthiness there is nothing to beat them: and for

bearing fruit, after a winter's exposure on the trellises, I doubt if they have an equal.

THE VERGENNES.

I have been led by claims of extraordinary merit to entertain great expectations for the Vergennes, though, had these claims not been endorsed by a disinterested party, I should have considered that they arose in a great measure with the gentleman who wrote out the advertisement, and it is quite certain that he who undertook that task for the Vergennes is well up to his business. He claims that it is hardly and wonderfully productive, a better grower than the Concord, as early as the Hartford Prolific, keeps all winter, and can be dried into a raisin, bunch and berries are large and hold firmly to the stem, the flavour delicious, colour light amber, free from mildew, and the seeds few and small. Now, can your readers think of any good quality that a grape vine might be expected to have, or that they could wish it to possess, that is not enumerated in the above; or can they find any man who has spent money in trying high-priced and highly-praised vines, who will believe that any one vine can truly claim much more than half of those merits? I would suggest to Mr. Perry, the author of the above description, that if he wishes to add another attraction to the above long list, that he should endeavor to produce a grape that is free from seeds; but what was my surprise some ten or twelve months ago to find the Editor of the *Rural New Yorker*, saying he believed the Vergennes to be all that was claimed for it; that gentleman is, I believe, a reliable authority, and his recommendation induced me to order at once a couple of vines; and notwithstanding my enthusiasm has been a little checked by his having in a late number of that journal, so far modified his opinion as

to express a doubt with respect to its claim for earliness, it has not prevented me sending an order a few weeks ago for half a dozen more, for it is clear that should it prove no earlier than the Concord, it must, if its other claims are well founded, establish its title to be called: "The grape for the million."

PRODUCTIVENESS.

I would like to know if any of your readers ever saw a fruit tree or vine of any kind advertised for sale that was not said to be productive; some are very productive, some wonderfully productive, some immensely productive, and some are inclined to overbear. I sometimes think this word productive is used in a double sense, and gives "the word of promise to our ear, and breaks it to our hope." I might say that my Black Currant bushes are productive; and so they are, whatever produces fruit is in one sense productive; and they produce Black Currants; but then there are so few of them that they don't pay for picking. I prefer the overbearing kind, it is so much more satisfactory to pull off a little of the superabundant crop than to be cultivating a splendid array of empty branches; besides, the best fruit can be retained in the thinning out, whereas if the crop is too thin, whatever presents itself must be allowed to grow; for this reason I am partial to the Duchess, Wealthy and Wagner apples, the Lombard plum and the Delaware, and I hope to be able to add the Prentiss and Vergennes grapes.

EARLINESS.

Well then as to earliness; how common it is to see "ripens with the Concord" or "about with the Concord," and so they may, and still be very late grapes; one writer says, "about with the Concord," means two weeks later; but look at the "double sense" again; the last of the Champions might be ripening with the first of the ConCORDS,

and the first of the latest grapes that can be named might be ripening—where they will ripen—with the last of the Concord; so I always look for something more decisive than “with” or “about with.”

EXPERIENCE AND PROSPECTS IN THE COUNTY OF SIMCOE.

The last two years have been a sad experience for grape growers in this locality; but our discouragement is lessened by knowing that we are not alone in misfortune; the last season was particularly unfortunate; the frost of the 9th of Sept. having been so destructive that a great many growers had not an uninjured bunch left; and still more of them did not taste a ripe grape of their own raising. I and a few others were not quite so unfortunate; my ground is not so subject to frost as most of the farms in this neighbourhood, in fact I believe that the County of Simcoe—this part of it at all events—enjoys a climate less severe than a large portion of the Midland Counties, occupying the height of land between Lake Ontario and the Georgian Bay, say for instance, the County of Dufferin and a large portion of North Wellington; in proof of which, it is a fact, that the crops in these counties were very considerably injured by frost last fall, while no injury whatever was suffered in this section.

The grapes that ripened best with me were Brant, Delaware, Rogers' 15, and Concord, and of these I actually sold a few dollars worth, though I cannot say that they were perfectly ripe, and am trying to make wine of about fifty pounds that were only half ripe, still I am not discouraged, I take some comfort from the fact as reported in the *Globe* that the mean temperature of the year 1883 was $2\frac{1}{2}$ deg. below the average, and those who have given any study to Meteorological subjects know what

that means, it means that the temperature of Toronto was one deg. below the average of Barrie, and that Barrie had to endure for that year the average climate of Parry Sound. I have lived here five years, and three out of the five, had not the slightest difficulty in ripening every bunch. I sold grapes in 1879 on 15th Sep., and in 1880 on the 14th; these were from vines on a rented place, and it was there I had my experience in leaving vines exposed all winter on trellises; but suppose the crop should be destroyed by frost occasionally, are we then to give up grape growing altogether? And how much worse are grapes in this respect than other fruits? The Borer and Bark Lice destroy our apple trees, and the Codlin Moth spoils the fruit; Blight attacks the pear trees, and the Curculio takes the plums. Might we not just as well lose our crop of grapes once in four or five years as have half our plums and apples spoiled every year?

Yours, etc.,

A. HOOD.

“CAN” YOUR RHUBARB IN JUNE OR JULY.

All fruit seems to be best appreciated when it can be obtained a little earlier than its usual season. At this time of the year, when apples have become scarce, all families having a garden (and that family who has not is to be pitied) look forward with much interest and speculation to the time when the rhubarb plant shall be ready for the table. All palates are delighted with its delicious acidity when properly tempered with sugar, and it is, therefore, much prized at a season when no other fruit or vegetable may be had. The season when it is so much appreciated is however comparatively short. A few weeks, and other things take its place, then the rhubarb is neglected and heaps of it is allowed to go to waste in most

gardens. It may not be desirable to lengthen its season, but there is no reason why we should not commence its use a month or two earlier. At the latter end of the season when it becomes so plentiful that it cannot be sold at any price is the right time when every family should put up a few dozen bottles for early spring use. No other fruit can be "canned" easier or with less expense in sugar, and no other fruit is better relished during the months of March and April, than the despised rhubarb of the preceding June or July.

T. B.

Lindsay, April, 1884.

ROCK-WORK AND FERNS.

(For the Canadian Horticulturist.)

I am glad that Mr. Allan has brought the subject of ferns before the readers of the *Horticulturist*. No more beautiful plants for a shady place in a garden or shrubbery can be cultivated with so little trouble than our native ferns, and none will give greater satisfaction and pleasure to the man of taste who has an eye to the graceful and beautiful.

I heartily indorse all that Mr. Allan has said in their praise. Some unsightly places in pleasure grounds might be utilized in the manner he speaks of, and become a thing of beauty. I like the idea of *throwing* the stones when building a rockery. Some carefully built rockeries look stiff and unpleasant to the eye, but, indeed, rock-work is one of the most difficult things to construct tastefully.

I send you a list of ferns suitable for either a high or low rockery, which ought to be built of limestone if got convenient, as a large portion of ferns are found growing on the *debris* of limestone rock; that seems to be their *habitat*. Of course, some varieties, such as, *Osmunda*, *Onoclea*, *Struthiopteris*, etc., luxuriate in moist land and swamps,

but botanists are in their glory when they get a field day at the base of limestone rocks where a large amount of *debris* has been detached from the rock and well shaded with trees. Soil is an important matter in constructing a rockery for ferns, it ought to be well rotted turf and vegetable mould from the woods.

ASPIDIUM—filix mas (very rare; male fern)

acrostichoides

goldianum

marginate

ASPLENIUM—filix femina

angustifolium

trichomanes

viride

Scolopendrium (Hart's tongue) lonchitis

Adiantum pedatum (maiden hair)

Polypodium vulgare

Camptosorus rhizophyllus (walking fern)

Pteris aquilina (common brake)

Osmunda regalis

Onoclea sensibilis

Struthiopteris (ostrich fern)

WILLIAM ROY.

CURCULIO AND PARIS GREEN.

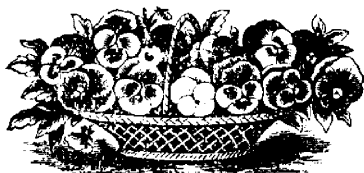
MR. EDITOR.—I was recently conversing with Mr. Biggar, of Winona, about his experiments in spraying his orchard with Paris-green. He told me that while he was unable to form any opinion concerning the benefits or otherwise of the Paris green upon his apple trees, owing to the failure of the apple crop last season, he had reason to believe that the application upon plum trees had a very beneficial effect upon the curculio. When his men were spraying the apple trees, they finished off by giving a showering to one plum tree which stood next to the apple trees. This plum tree is one of a row of plum trees forming a continuous row with the apple trees; and this tree alone of all the plum trees brought any fruit to perfection. From this tree he gathered four baskets of plums, but the fruit all fell off from the remaining trees. The variety is the General Hand, but other

trees of the same variety lost their fruit. The plums were about the size of peas when the Paris green was applied. He used three ounces of Paris-green mixed with forty gallons of water, and sprayed the trees with one of Field's orchard force pumps, which he found to be an excellent instrument for the purpose. If any other readers of your valuable magazine have any experience in the spraying of fruit trees, will they not have the kindness to communicate it to their fellow fruit growers through the columns of the *Canadian Horticulturist*.

C.

THE CULTURE OF PANSIES.

The pansy yearly grows in favour with amateur as well as professional gardeners, and no garden or lawn can afford to be without it. The florists of England, Belgium, France, and our own States, vie with each other in produc-



A BASKET OF PANSIES.

ing larger and more delicately tinted or marked varieties. The standard shape of the flower should be nearly or quite a circle, and the size should equal a silver dollar. Pansies are easily grown from seed, and if they are planted early in the season, in boxes, placed in a hot-bed, they will be large enough to make a beautiful edging or bordering for beds of geraniums, roses or petunias. The seeds should be sown in sandy soil, mixed with an equal portion of very rich compost, and when the plants have five or six leaves, transplant them into the beds or borders where they are to bloom, placing the plants four or five inches apart.

Very large flowers can only be obtained by the most liberal use of fertilizers. The pansy is a gross feeder, and will not grow to perfection if its needs are not consulted. The beds should be prepared as richly as for asparagus or celery, and when they begin to flower give them a plentiful showering every night, when rain has not fallen. Hot, dry weather will prevent their making a fine display, if the beds are not well moistened and shaded from the noon-day sun. In the hottest weather, water the beds both morning and evening. When the young plants have begun to flower, a weekly watering with liquid stimulants will be found very beneficial, and if yard manure is not at hand, soluble Pacific guano will make an excellent substitute. Dissolve two table-spoonsful of the guano in a gallon of warm water, and pour it freely about the roots, but not upon the leaves. I find it the best stimulant for all my flower beds. When the blossoms appear, if they are small and inferior in color and shadings, pull the plants up at once, and do not let them remain in the bed to spoil its effect. As the seedlings were planted closely, their absence will not be noticed. If, however, all have fine flowers, and are too crowded, transplant some of them into another richly prepared bed or border, in a damp and cloudy day, towards night. They will not wilt if taken up between seven and eight o'clock, after they have been thoroughly watered. They should be shaded for a day or two.

Pansies can be quickly raised from cuttings of the fresh young shoots which spring from their roots, by planting them in sandy soil in the shade. They will make fine plants for autumn flowering, as young plants always bloom the finest. If all straggling branches and seed pods are removed from the plants raised for early spring flowering, they will also bloom luxuriantly in the

autumn. With a pair of shears, cut off the first growth by the last of June, and do not let any pods mature excepting those especially desired for seed. It ruins pansies to let them seed plentifully in September and October. Those who gather these flowers with lavish hands for themselves and their friends, always succeed best in their culture, for their plants will constantly send forth fresh buds and flowers. There are no flowers more beautiful for parlor decoration, for the dinner table and for bouquets than pansies. Their odors are not overpowering, and yet are delicious. A basket filled with pansies is a pleasing gift to every one.—S. O. J. in *Country Gentleman*.

MULCHING POTATOES.

MR. EDITOR.—Noticing in the April number an account of some experiments with potatoes, one of which was the application of a mulch or covering of straw, instead of cultivating the ground in the ordinary manner, it occurs to me that your readers may be interested in a short article on the subject which I send you, clipped from the *Farmer and Fruit Grower*. It is written by a resident of the State of Illinois. He says:—

It might be of some interest to give the mode of mulching practiced for the past twenty years in this and adjoining counties; and here at the outset let me say that for early potatoes it is best not to mulch (or straw them, as we say), for the reason that the straw keeps the ground cold and damp, and that is a hindrance to early maturity of the potato, as early in the season the ground is cool and moist, but for potatoes planted later, mulch is required or is beneficial.

It often occurs here on the flat lands in this part of the State that we are kept back from planting potatoes (by wet weather) until what would be late in the season, say well up in April. Then is mulching profitable, as the heat is becoming greater and we mulch to keep the ground cool. As to

planting, prepare the ground in the best order by plowing deep and manuring. The ground should be laid off to drain; that is, the rows should run up and down the ridge so as to carry off the surplus water, as no water should be allowed to stand on the ground.

To lay off the rows, use a large shovel plow, making the furrows four inches deep. The plow should be run deeper than that for part of the dirt will fall in after the plow, so have the opening four inches deep and furrows two feet apart or closer if possible. Plant the seed 15 inches apart in the row, then throw two furrows on them, forming a ridge over them. If properly done, there will be no middle furrow left between the ridges.

After they have lain about one week, take a stout pole twelve feet long, hitch a horse to the middle of it, and drag it over the rows like a harrow, letting the horse walk between the rows. This will flatten the ridges some, and destroy all young weeds starting. Now they are ready for the straw or mulch, which should be spread all over the ground from 6 to 10 inches deep. Dry straw is the best, but if it is wet it should not be put on so deeply, as it lies solid. You need not be afraid of the young plants not coming through, as every plant that starts will make its way through. Some defer putting on the straw until the plants begin to show, but I think it is much better to put the straw on before plants come through the ground, as then they come right on.

If enough straw has been put on, no weeds will trouble you through the season. Then there is nothing more to do but wait for the harvest. It is more laborious to plant an acre this way than the old way, but it is far surer, and a much larger yield is obtained—nearly double—and when the tubers have ripened they do not take the second growth, but may lay till late in the fall, until there is danger of a freeze. Indeed, we often have seen them keep under the straw this way till spring.

When the crop is to be taken up, the straw must be forked off to one side. We usually take up the potatoes with a four-pronged fork, and they come out nice and clean.

A word about the straw. It is in the very best condition now for covering

strawberries. No weed seeds to grow, and usually it is half rotten and just the best mulch that can be found. J. B. M.

Marissa, Ill.

DEUTZIA CRENATA.

As the Fruit Growers' Association offers to the readers of the *Canadian Horticulturist* a plant of the double flowering *Deutzia crenata*, we clip from the *Garden* the following remarks and likewise give a cut of a small branch when in flower. Of this there appears to be two distinct varieties, in one of which the bark of the young shoots is reddish and the flowers on the outside



BRANCH OF DEUTZIA CRENATA.

suffused with rose; in the other the young shoots are green and the flowers almost, if not quite, white. They are both beautiful shrubs, although, in my opinion, the palm must be awarded to the pink-tinged one. The flowers are valuable in a cut state, as they last for some time in water, and are borne in large showy spikes. I counted nearly forty flowers on a spike, and each bloom consisted of about thirty petals; some idea may therefore be formed of

the beauty of my plant—a young thriving specimen. The single form is a pretty shrub, but the blossoms are shed much quicker than those of the double kind. It is the variety which has the pink-tinged flowers which will be given to our readers.

HUSSMAN ON SUMMER PRUNING THE GRAPE VINE.

Without proper and judicious Summer pruning, it is impossible to prune judiciously in the fall. If you have allowed six or eight canes to grow in summer where you need but two or three, none of them will be fit to bear a full crop, nor be properly developed. We prune longer in fall than the majority of our vinters, which gives a double advantage: should the frost of winter have injured or killed any of the first buds, we still have enough left; and should this not be the case, we still have our choice to rub off all imperfect shoots; to reduce the number of branches at the first pinching, and thus retain only strong canes for next year's fruiting, and have only large, well-developed bunches.

But to secure these advantages, we have certain rules which we follow strictly. We are glad to see that the attention of the grape-growers of the country is thoroughly aroused to the importance of this subject, and that the old practice of cutting and slashing the young growth of July and August is generally discountenanced. It has murdered more promising vineyards than any other practice. But the people are apt to run into extremes, and many are advocating the "let alone" doctrine. We think both are wrong, and the true course to steer is in the middle.

1st. Perform the operation early. Do it as soon as the shoots are six inches long. At this time you can overlook the vine much easier. Every young shoot is soft and pliable. You

do not rob the vine of a quantity of foliage it cannot spare (as the leaves are the lungs of the plant and elevators of the sap). You can do three times the work that you can perform a week later, when the shoots have become hardened and intertwined by their tendrils. Remember that the knife should have nothing to do with summer pruning. Your thumb and finger should perform all the work, and they can do it easier if it is done early.

2d. Perform it thoroughly and systematically. Select the shoots you intend for bearing wood next year. These are left unchecked; but do not leave more than you really need. Remember that each part of the vine should be thoroughly ventilated, and if you crowd it too much, none of the canes will ripen their wood as thoroughly nor be as vigorous as when each has room, air, and light. Having selected these, commence at the bottom of the vine rubbing off all the superfluous shoots, and all which appear weak or imperfect. Then go over each arm or part of the vine, pinching every fruit bearing branch above the last bunch of grapes, or if this should look weak or imperfect, remove it and pinch back to the first perfectly developed bunch. Should the bud have pushed out two or three shoots, it will generally be advisable to leave the strongest, and remove the balance. Do not think that you can do part of it a little later, but be unsparing in taking away what you intend to take this time. Destroy all the caterpillars, and all the insects you find feeding on the vines; the steel-blue beetle, who will eat into the buds; but protect the lady bug, mantis, and all the friends of the vine.

We come to the second stage of summer pruning. After the first pinching, the dormant buds in the axils of the leaves, on fruit bearing shoots, will each push out a lateral shoot, oppo-

site the young bunches. Our second operation consists in pinching off these laterals back to one leaf as soon as we get hold of the shoot above the first leaf, so that we get a young and vigorous leaf additional, opposite to each bunch of grapes. These serve as elevators of sap, and also as excellent protection and shade to the fruit. Remember our aim is not to rob the plant of its foliage, but to make two leaves grow where there was but one before, and at a place where they are of more benefit to the fruit. By our method, our rows of vines have the appearance of leafy walls, each bunch of the fruit properly shaded, and yet each part of the vine is properly ventilated.

We come now to another part of those accidental discoveries which have proved of great use to us in the management of the Concord, Herbeumont, Taylor, etc. In the summer of 1862, when a piece of Concord, planted in 1861, was growing rapidly, a severe hail storm cut up the young shoots, completely defoliating them, and breaking the tender and succulent shoots at a height of about two feet. The vines were growing rapidly, and dormant buds in the axils of the leaves immediately pushed out laterals, which made fair sized canes. In the following fall, when we commenced to prune we found from three to five of these strong laterals on each cane, and accordingly shortened them in from three to five and six buds each. On the laterals we raised as fine a crop of grapes as we ever saw—certainly much finer than we had ever before raised on the strong canes; and we have since learned to imitate hailstorms by pinching the leaders of young shoots when they have grown, say two feet, forcing out the laterals and growing our fruit on the latter, thus meeting with another illustration of the old proverb: "It is an ill wind that blows nobody any good."

After the second pinching of the fruit-bearing branches, as described above, the laterals will generally start once more, and we pinch the young growth again to one leaf, thus giving each lateral two well developed leaves. In closing let us glance at the objects we have in view :

1st. To keep the vine within the proper bounds, so that it is at all times under the control of the vintner, without weakening its constitution by robbing it of a great amount of foliage.

2d. Judicious thinning of the fruit, at a time when no vigor has been expended in its development.

3d. Developing strong, healthy foliage, by forcing the growth of the laterals and having two young, healthy leaves opposite each bunch, which will shade the fruit and serve as conductors of the sap to the fruit.

4th. Growing vigorous canes for next year's fruiting and no more, thereby making them stronger ; as every part of the vine is accessible to light and air, the wood will ripen better and more uniformly.

5th. Destruction of noxious insects. As the vintner has to look over each shoot of the vine, this is done more thoroughly and systematically than by any other process.—*From the Wine and Fruit Grower.*

NIAGARA AND ITS WILD FLOWERS.

A lovely afternoon in the Indian summer ! We are sitting near the top of the hill close above the great Horse-shoe Fall at Niagara, and the wealth and loveliness of the wild flowers, forming one of Nature's most exquisite wild gardens, lying stretched out at our feet, makes us think how many of our gardening friends—yourself more than most—would find a deep enjoyment could they be here, and see what we are now seeing, and what I will try to describe, faint and feeble though my

description must necessarily be in comparison with the glorious reality.

The great Cataract itself is in unusual magnificence ; the early autumn rains have brought a large body of water into the lake, and the torrent of liquid emerald pouring over the jagged rocks is deep and massive, and its thunder has an unwonted tone of grandeur and solemnity. Far away in the distance lie the quiet waters of the great lake, placid and unstirred as yet, and the white sail of a far-off boat is seen as it gets an occasional gleam of sun while passing from one shore of the lake to the other. Nearer at hand, for the space of a mile or so before reaching their doom, the waters, placid no longer, foam and swirl, hurrying madly along. Every dancing wave crest is turned into molten silver in the rays of the westering sun ; every rock lying in the channel seizes a passing wave and whirls it upward in masses of glittering spray, till at last, when on the brink of the great chasm, there comes to the rushing waters a sudden gathering up of irresistible strength, and they, whose only object hitherto seems to have been to dash themselves past all obstacles with reckless and ever-increasing speed, become all at once possessed with a sense of their awful power as they suddenly, swiftly, silently, drop over the perpendicular rock into the fearsome turmoil below, great green jewels, wide and deep, in a setting of frosted silver.

And this solemn magnificence and grandeur has the exquisite contrast of so lovely and peaceful a foreground ! The hillside down which we are looking, and which stretches to the edge of the water, is aglow with vivid colour—huge golden masses of *Solidago* of many kinds, great clumps many yards wide of big, deep purple, primrose-eyed *Asters* alternate with those of a pale shimmering lilac, and with others small

flowered but profuse in bloom, while throughout the undergrowth is a bright blue gleam, as though some spangles had fallen from the sky—the gift of a flower of which the name is unknown to me. Then from out the grass shine everywhere small bright flowers of many colours, among them a delicate Gentian-like bloom bravely lifting its head up on slender stalk. And there are so many lovely flowers besides—a bush covered with apricot-coloured blossoms in shape like a *Mimulus*, a glowing mass of red *Lythrum*, and a delicately lovely *Aster*, in which the lilac is replaced by a sheeny grey-pink. The feathery blooms of *Spiræa* and some white *Daisies* shine here and there among their more richly-coloured sisters. It is indeed a garden unapproachable in its own beauty, and with its tender loveliness made more impressive by its wonderful surroundings.

Just where we are sitting we have taken advantage of masses of tall shrubs and the stems of forest trees, to shut out from view all buildings and roads, and have left ourselves with the Falls and the Nature-planted garden as they might have been seen long, long ago. There is hardly a breath of wind; the great misty columns of spray rise high into the sky from the base of the falling water, and it is only at rare intervals that a wandering spirit of air takes one of the lighter spray clouds and bends it over towards us, when its soft and dew-like mist is shed over the thirsty flowers, making their vivid colours glow with intenser beauty in the rays of the setting sun. As the gentle breeze passes by they bow their heads in gratitude for the welcome moisture, and a rustling murmur runs from top to bottom of the hill as they raise themselves up again in thankful praise.

And ever the voices of the waters are circling around us, now seeming to raise a threatening warning of their

irresistible power, now chanting a solemn death song as they are hurled over the precipice to be broken to the very last drop into foam, and spray, and mist on the rocks below, and ever through the voices, now loud, now low, with unceasing iteration, seems to vibrate a note of praise to the great Creator of all for the use He has made of them in the formation of one of the wonderful sights He has given on earth for our enjoyment.

And now, with sudden dip, the sun is lost behind the hill; the air strikes chill, and the flowers begin folding themselves away to sleep, but the beauty of the scene entrances us yet. In front of the now dark and sunless foreground sweeps the broad horse-shoe of foaming and struggling water; the great emerald is now changed into a myriad-tinted opal; the wavelets that leap into the air all along the whirling rapids are dyed with a flush of pink; while from far down in the gloom and depths of the Great Fall a rainbow rises into the misty mass of spray. Above, around, and through the spray gleam the floating clouds in the evening sky—now blushing o'er with rosy flame, now slowly changing to a lustrous gold, till all colour slowly fading gleam by gleam away, the grey hush of the coming night falls over the wondrous scene.

As we rise to begin our way down the hill, our first step seems to bring us back from a world of dreams, and we know afterwards that the same thought was in both our minds and the same words were ringing in both our ears—those words in which God gives us a foreshadowing of His eternal mysteries; "Eye hath not seen, nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love Him." H. STUART WORTLEY (Colonel), *in the Garden*.

HOW TO CAN FRUIT AND SAVE YOUR SUGAR.

I presume all know that there are several kinds of sugars. Cane sugar, grape sugar or glucose, and milk sugar are the principal varieties. Of these, cane sugar stands pre-eminent for its sweetening properties, being rated at 100, while grape sugar is only rated at 40. In other words, it takes two and one-half pounds of grape sugar to equal one pound of cane sugar. I presume, however, that your readers do not all know, what is known to every chemist, that when cane sugar and fruit are boiled together the acid of the fruit causes a chemical change in the sugar to take place, which changes the sugar to grape sugar.

I do not suppose they intend to throw away six pounds of sugar out of every ten they use in the preparation of fruit. Yet such is the fact. They have, as a result of the boiling, ten pounds of glucose, which is only equal to four pounds of sugar; and besides this loss the fruit has, to a great extent, lost its true flavour, and is, of course, inferior in quality to that sweetened with cane sugar. How can fruit be sweetened with cane sugar without making this change and loss of flavour? As that is the principal object of this paper I will answer the question.

First, cook your fruit until it is "done;" then, if you have time, let it get cold, and then add your sugar, mixing it well; let it stand an hour or more. The sugar by that time will be absorbed by the fruit. You will then have saved all your sugar and preserved the flavour of the fruit at the same time. If you have not time to wait add your sugar when the fruit is only partially cool, and you will only lose 5 or 6 per cent. of the sugar.

In the making of preserves there are two ways to avoid the loss of sugar.

One is to use only glucose and fruit in equal parts, as it is much cheaper to buy glucose than to make it of the higher priced cane-sugar. Another way is to cook your fruit as before described, then add one-half a pound of sugar to the pound of fruit and seal up in cans, or steam the fruit when practicable, lay it in the cans and fill up with hot syrup made so as to contain the proper proportion of sugar, and seal. You will then save nearly all the sugar. Preserves made in this way will ferment unless sealed in air-tight cans.

In the ordinary canning of fruit no sugar should be used, as a part of it turns to glucose while hot, and if the fruit in the can ferments through some imperfection in the process, as frequently happens, your sugar is lost entirely. Open your cans an hour or more before meal time, add your sugar, mix it well and let it stand; the sugar will thoroughly permeate the fruit by that time and no sugar is lost.

I suppose everybody uses glass cans to a greater or less extent. A good many years ago a lady taught me how to fill a cold glass can with boiling fruit without the danger of breakage. I have seen the plan tried often enough to have entire faith in it.

Place in the empty can a spoon that is long enough to reach from the bottom to the top of the can, pour in your boiling fruit, remove the spoon and seal. The can will not break. Please do not ask me to explain the philosophy of it, as I dislike very much to plead ignorance, so I hope you will ask some of the knowing ones in your vicinity and let me know the explanation.—*Correspondence of Indiana Farmer.*

JOHN PIKE'S CATALOGUE of choice seeds, spring bulbs and garden requisites, Dundas street, Woodstock, Ont.

BOOK NOTICES.

THE FLORIDA DISPATCH, published by Ashmead Brothers, Jacksonville, Florida, is a most valuable agricultural weekly, containing much interesting information concerning the climate, soil and productions of Florida. Subscription, \$2.00 a year. We learn from it that Florida has appointed a commissioner for the State to make collections of her productions to be exhibited at the great International Exposition to be held next winter in New Orleans.

BARTHOLDI'S GREAT STATUE, which is to adorn the harbor of the city of New York, is very handsomely represented in a large and beautifully executed chromo-lithograph that has been sent to this office by the Travellers Insurance Company of Hartford, Connecticut, which has contributed a large donation towards the erection of this imposing statue of "Liberty enlightening the world."

WAR NOTES, a weekly campaign paper just started for the benefit of the general Scott Act campaign inaugurated by the Dominion Alliance, is issued by the *Witness* publishing house, Montreal, at one dollar for twenty copies weekly for six months. It gives news of the working of the Scott Act where it is in operation as well as campaign news.

READY REFERENCE LIST for agricultural advertisers, giving lists of newspapers devoted in whole or in part to agriculture, with the circulation of each and cost of advertising therein. Sent to any address on receipt of postal card asking therefor by Tracy & Diets, No. 927 Chestnut street, Philadelphia, Penn.

THE LITTLE CHRISTIAN, an illustrated paper for children and Sunday Schools, published bi-monthly, at 25 cents a year, by H. L. Hastings, 47 Cornhill, Boston, Mass. The sample copies that we have seen are very neatly printed

and handsomely illustrated, and full of wholesome reading—a matter of great moment now-a-days when so much trash is afloat—and that set forth in a style clear, concise, and yet such as will interest young readers, and grown up children as well.

THE SCHOOL SUPPLEMENT, published monthly, by Eaton Gibson & Co., Toronto, at one dollar a year, in the interest of teachers and scholars. The initial number is full of matter that will be of service to all educationists, and if the intention of the publishers is maintained throughout the year, namely of "conducting a paper which will prove indispensable to teachers and pupils," it should be read by every school trustee who desires to be able to act intelligently on the questions relating to school management that are continually being presented.

DIO LEWIS' MONTHLY for January, the only number we have seen this year, discusses the temperance question from a standpoint different from that usually taken by its advocates. The writer takes the ground that intemperance is a vice, not a crime; and therefore, although the sale of intoxicating liquors panders to this vice, we can not justly prohibit the manufacture and sale of these articles on that account, any more than we could prohibit the sale of silks, jewelry, and the like, on the ground that they tempted people to extravagant expenditure and ruinous waste. On the other hand, the writer maintains that inasmuch as the adulteration of articles of food and drink is a crime, the temperance advocates have it in their power, by bringing the laws against adulteration to bear upon the vendors of liquors, to shut up every bar and every saloon in the land. The magazine is published by Frank Seaman, 68 Bible House, New York.

LITTLE MISS BRIER.

Little Miss Brier came out of the ground ;
She put out her thorns and scratched everything round.

"I'll just try," said she ;

"How bad I can be ;

At pricking and scratching there's few can match me."

Little Miss Brier was handsome and bright,
Her leaves were dark green and her flowers were pure
white ;

But all who came nigh her,

Were so worried by her,

They'd go out of their way to keep clear of the Brier.

Little Miss Brier was looking one day

At her neighbor, the Violet, just over the way ;

"I wonder," said she,

"That no one pets me,

While all seem so glad little Violet to see."

A sober old Linnet, what sat on a tree,

Heard the speech of the Brier, and thus answered he

"Tis not that she's fair,

For you may compare

In beauty with even Miss Violet there."

"But Violet is always so pleasant and kind,

So gentle in manner, so humble in mind,

E'en the worms at her feet

She would never ill treat.

And to Bird, Bee, and Butterfly always is sweet."

The gardener's wife just then the pathway came down.

And the mischievous Brier caught hold of her gown :

"Oh dear! what a tear!

My gown's spoiled, I declare ;

That troublesome Brier has no business there ;

Here, John dig it up ; throw it into the fire."

And that was the end of the ill-natured Brier.

In The Little Christian.

MRS. ANNA BACHE.

COAL ASHES.

The following extract is from the bulletin of the New York Agricultural Experiment Station ; E. L. Sturtevant, Director.

Oftentimes careful observation may take the place of experiment, and such observations have a special value when the results of the observation have been uniform for a long series of years. The question as to the value and the use of coal ashes has been for a long time an interesting one and is getting to be more and more of a question as the use of coal extends.

One of the most desirable uses for coal ashes is to place around the stems of currant bushes, of quince trees, and the Mountain Ash, in order to check the ravages of the borer. In the garden of Mr. Robert J. Swan, of Geneva, are extraordinarily thrifty currant bushes, to which coal ashes have been applied for many years, and which have not only been free from the borers, but also from the attack of the currant worm. There are also quince trees of equal thriftiness, which have been under like treatment, and in the

lawn are a number of Mountain Ashes, some of which have been treated with coal ashes and the others have not, and the difference in vigor is extremely well marked in favor of those to which coal ashes have been applied. The ashes for this purpose are heaped up about the stem to a height perhaps of six to eight inches and extending about two feet from the trunk. The explanation offered is, that the ashes afford mechanical protection and also are of advantage as a mulch in maintaining moisture and cool temperature for the soil.

Coal ashes may also be found desirable for use in anchoring heavy clay soils, the intermixture preventing to some extent the baking which is so apt to occur after rains in early summer. The chemical value of coal ashes where wood kindlings have not been used is of very little account, and we can say that there is no doubt but, that field experiments in general, with coal ashes, have proved quite conclusively their uselessness. In analyses of coal ashes from the Pennsylvania white-ash coal, examined by Prof. Storer, 0.05 per cent. of phosphoric acid and 1.47 per cent. of potash was found, but these quantities, as Prof. Storer well says, are inferior to what would have been found in good pit sand from eastern Massachusetts.

SAVOY CABBAGE.—The Savoy cabbages are almost as tender as the cauliflower, have a distinct flavor, and a marrowy consistence of their own, which some prefer to cauliflower. These being as easily raised as the common cabbage, are within the reach of all. Those who have cultivated Savoy cabbages need no advice ; to those who have not, we say, by all means try the Savoys. The English authors of works on gardening regard them as so different that they class them by themselves, under Savoys, and not among the cabbages. When we first knew them there was but one kind, "the Savoy," now there are a dozen or more Savoys, including early and late kinds. Perhaps the "Improved American Savoy" will be best for those who try Savoys for the first time. Afterwards they will be glad to test the early and late kinds. The seeds are to be sown and the plants treated exactly as those of the ordinary cabbages.—*American Agriculturist.*