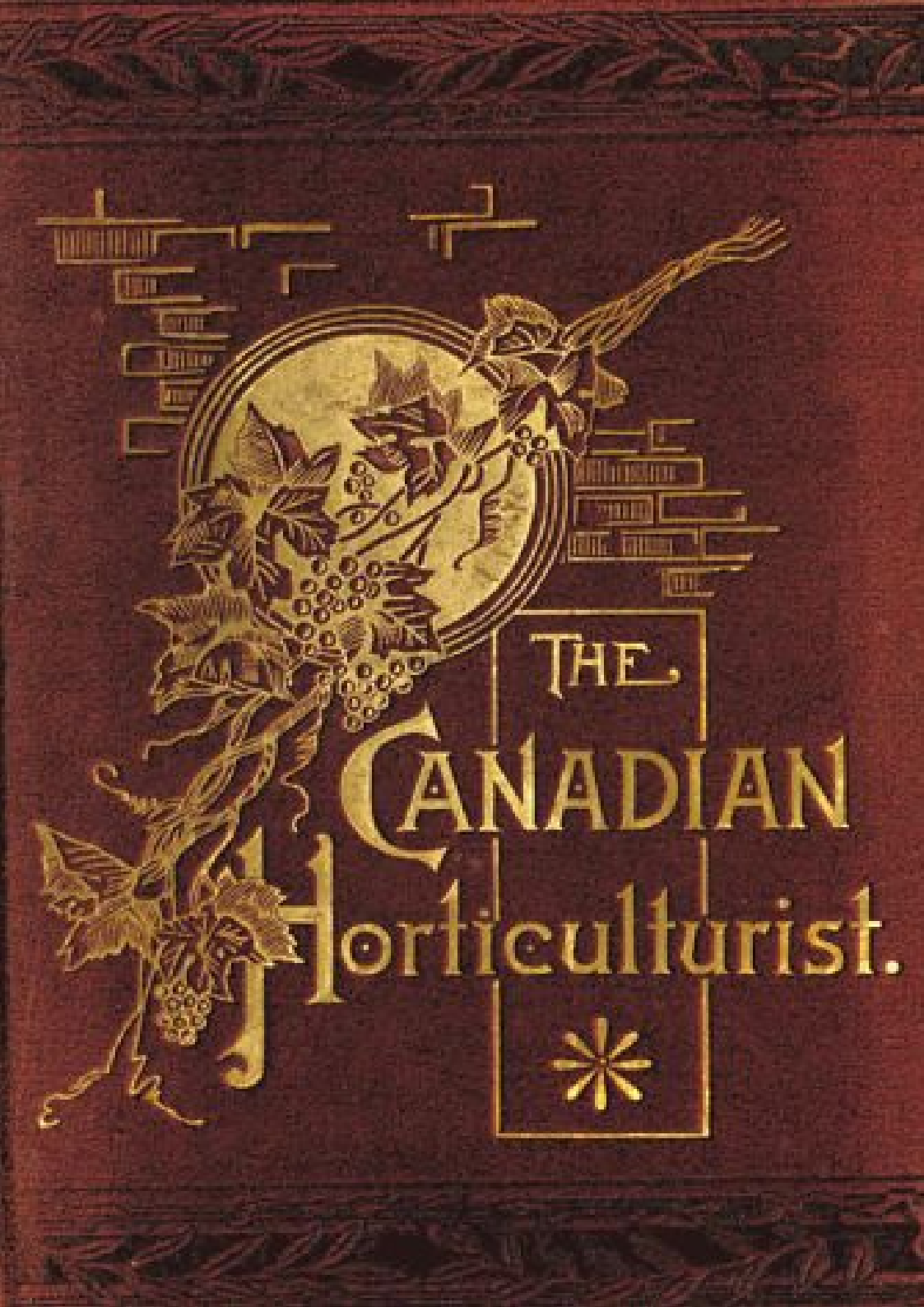
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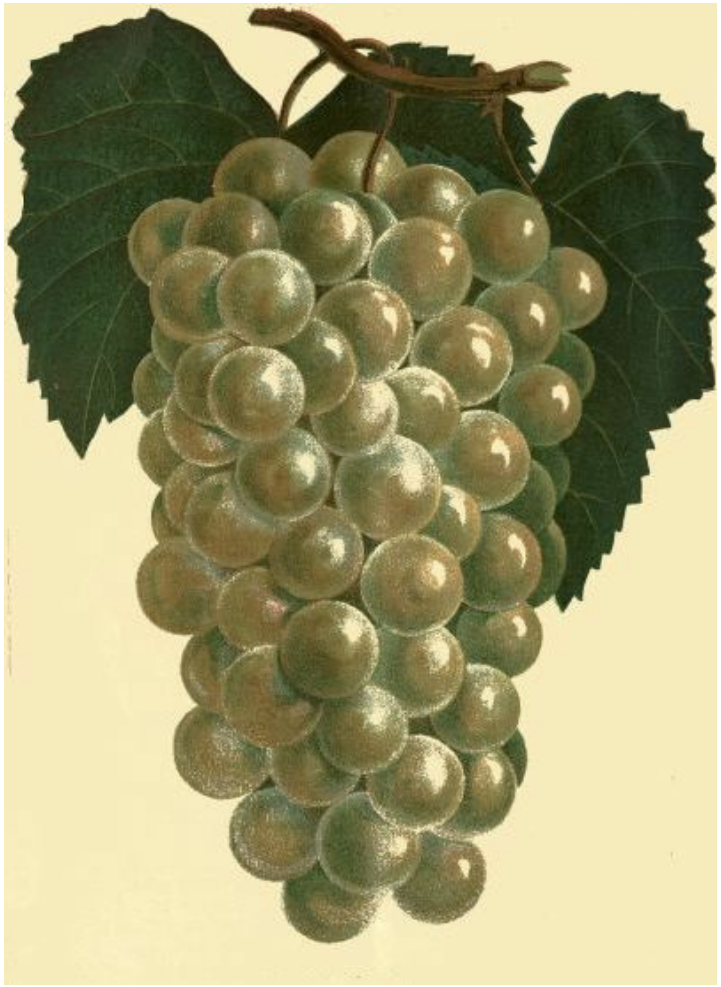


PRENTISS.

White, best quality, early, good grower, very productive, hardy, good keeper. Is a native seedling with no foreign blood. Sells wholesale in New York at 15 to 18 cents per pound. Flesh tender, sweet, melting, juicy, with a pleasant musky aroma. Quality the best. Ripens with Concord.

THE

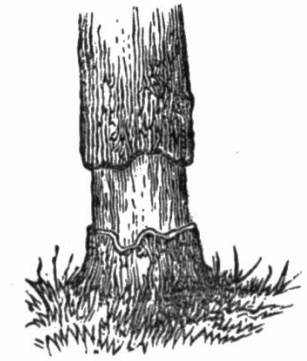
Canadian Horticulturist.

VOL. 6.] JUNE, 1883. [NO. 6.

WHITE GRAPES.

Just now there seems to be a strong desire in the public mind to get what are termed white grapes of good quality. There has been a good supply of black and red varieties, but none of the white grapes, up to a very recent date, have met the requirements of the time. Allen's Hybrid, though a beautiful fruit and very good in quality, had not sufficient constitution to endure the atmospheric changes of our climate, hence sooner or later it fell a prey to the mildew and ceased to be. Martha, though possessing great constitutional hardiness and ability to endure our climate, is not enough better than its parent, the Concord, to suit the demand for high quality, and purity of flavor, nor for its time of ripening sufficiently attractive in personal appearance to meet all that is demanded. The Lady has not yet been long enough in the hands of the public, nor sufficiently widely disseminated to enable one to speak positively of its merits, yet if we may venture to give utterance to present impressions, we should say it too will be found wanting in constitutional vigor, and that while in the hands of some cultivators it will be valued for its early ripening and agreeable flavor; in the hands of the masses it will not prove to be a success. The Pocklington has been the most extensively planted in Ontario of any of the white grapes, and very soon we shall know what is the popular verdict. Its large size and showy appearance, and its hardy constitution are in its favor, while its time of ripening and foxy flavor will leave ample room for an earlier variety having less of the native aroma. The variety which is so well illustrated in the colored plate which accompanies this number, known as the Prentiss, is now being tested. It is the intention of the directors of the Fruit Growers' Association to present to each subscriber who may desire it, a yearling plant of this vine in the spring of 1884, for trial. It is said to be a seedling of the Isabella, to ripen earlier than its parent, and to be very productive. The writer has tasted some samples of this variety shewn at the fruit exhibitions, and was favorably impressed with the quality. It is not foxy like Martha, Pocklington and Niagara, nor is it as high flavored as Iona, Jefferson or Brighton. In size of bunch and berry it is not equal to Pocklington, but better than Martha, as a glance at the illustration will shew. It is to be hoped that those who plant it will not fail to report their opinion of its merits through the columns of the *Canadian Horticulturist*. This is the object which the directors seek to attain in the annual gift of some plant to our readers, hoping in this way to be able to disseminate valuable information from the experience of many in different localities.

MICE-GIRDLED TREES.

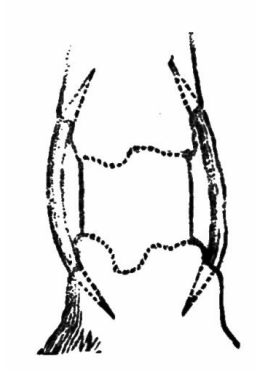


TREE GIRDLED BY MICE.

Many orchards have suffered severely from mice during the past winter, and though it is now too late to remedy the injury in the manner mentioned below, we nevertheless give it to our readers while the subject is before us, in the hope that at some other time they will be able to refer to it should occasion require.

The following illustrations which we have had prepared will fully explain the process. The method is taken from the *Country Gentleman*.

A tree that has been girdled by mice will present the appearance, more or less complete, shewn in the annexed cut. The sap can not circulate from the root to the branches because the bark has been eaten away, but if we can restore the means of circulation then the sap will ascend and descend as before. This is what it is proposed to do by means of small branches or young shoots inserted so as to bridge over the injured portion. The shoots or scions may be chosen of such size as that they shall be proportioned to the size of the tree, and not too stiff to be somewhat elastic. These shoots are to be sharpened wedge form at each end, and openings made with a chisel in the bark above and below the girdled part. The manner of insertion is shewn in the illustration. It will hardly be necessary to say that the scions used should be living branches of a tree of the same species, and that it is advisable to insert the butt end into the bark on the lower side of the injury. They should be of such a length that they can be easily inserted by bending them a little, and when inserted be nearly straight. The sap will then flow through the bark of the twigs which have been inserted, and the circulation between the root and branches restored. When the work is completed the tree will have the appearance shewn in the following cut. After the scions have been inserted, from four to six in number, they should be bound firmly with a strip of cotton cloth to keep them in their place, and the points of insertion covered with grafting wax. The best time for doing this is early in the spring before the buds open.



SHEWING HOW THE SCIONS ARE INSERTED.

APPEARANCE WHEN COMPLETED.

The *Country Gentleman* gives an account of a person who had a large pear orchard girdled by the mice. He employed three men who thus bridged from sixty to eighty trees each per day with four scions to each tree, and out of the twelve hundred thus treated he lost only sixty trees, and that because the work was badly done by a careless bungler. Where the work was well done all lived.

CORRESPONDENCE.

EXTERMINATION OF WHITE GRUBS.

It has been a matter of considerable surprise to me that such journals as the *American Agriculturist* and such bodies as the Fruit Growers' Association of Ontario, have decided that nothing can be done to cut short the supply of white grubs. To produce a marked effect in this case as in the case of most of the insects, a general war is highly desirable. If there is a supply of available children they will enter into the sport with great glee. A supply of ducks or other fowls to consume the raw product is no disadvantage. Early in June, so soon as the May beetles (the parents of the grubs) make their appearance, is the time to operate the most effectually. The beetles may often be found in the daytime in cracks and crevices in the ground, and more especially at the roots of plum trees, and here the ducks will be seen searching for them. But so soon as the shades of evening are fairly settled the great beetle harvest begins.

One child carries the stoppered can or large bottle, another carries the lantern, if the night is dark, and the fun begins. Many can be picked from the plum tree, but jarring is the quickest method. By making the round of the plum trees a few times the local supply will be bottled in short order. A few may be found on cherry trees and a few on raspberry bushes, but the plum trees are their headquarters.

By catching them every evening for a few weeks, one family will destroy beetles enough to furnish a full supply of grubs for several acres of ground. If fruit-growers generally would pay attention to the beetles at the time spoken of their numbers would be greatly diminished. Where clean cultivation is the rule grubs do not incline to deposit their eggs. A growth of grass or weeds, or of say strawberries, gives them something to found their hopes upon. Sod land is often very full of grubs, which proceed to destroy strawberries or potatoes if planted thereon. After a few years good cultivation the grubs disappear. Salt is used as a remedy, but it is doubtful if enough to destroy the grubs would not destroy the vegetable crop as well. Remedies in this as in other cases get a cheap reputation because the trouble happens to disappear simultaneously with their application. I train hens to follow the plough and eat the grubs. Robins understand the grub business better than anybody else. My lawn was nearly destroyed by grubs. In the fall a few robins took the contract of resurrecting those grubs. They did it thusly: Hop along. Listen. Down goes the robin's bill. Out comes the grub. A brief ray of sunshine and then all is darkness for that grub. I suspect, too, that crows know more about grubs than they have ever told us.

E. MORDEN.

Drummondville, Ont.

CODLIN MOTH.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

SIR,—We sustained very little injury last year from the ravages of the Codlin Moth, but in the course of the summer I noticed in the agricultural department of the Toronto *Globe* a receipt for

capturing the moths, by hanging wide-mouthed glass jars under the branches of the trees containing a mixture of water and molasses, or sugar and vinegar, so I resolved to try it. I hung up in different parts of my orchard, about one acre in extent, three glass preserve jars with the above-mentioned mixture in them, and a few days after found some of the moths caught. I let them remain, and in another week or so the water was full of moths and some beetles of a black color with wide ivory bands around them. I sent a specimen to the agricultural editor of the *Globe*, and found it was one of the burying beetles. I had to empty the jars more than once during the fall and replace the mixture, and destroyed some hundreds of moths. Whether they were all Codlin Moths I cannot say. One of my neighbors, who rather prides himself on his fruit-growing, was here one day, and I took him into my orchard and showed him one of the jars with moths in it. He took out his pocket-book and made a note of the proportions of water, molasses and vinegar, and after all made no use of them. I mentioned the matter to others, but could not get them to follow my example. The plum growers in the vicinity of Owen Sound were entire strangers to the curculio until last year, when that pest made its appearance in one or two orchards at the upper end of this township. I fear it will spread all over this part of the country in a few years more, and if it can only be kept in check by frequent jarring of the trees, I think I shall let the plums go—the few I have at least. I have a Mountain Ash growing near my house which was formerly despoiled of its berries before Christmas by the birds, but strange to say no birds meddled with it last fall, although in the winter it was visited by a small flock of the northern grosbeaks, that effectually cleared off its berries. I notice in the columns of the *Brant Review* that that pest, the English rabbit, is becoming troublesome in the County of Brant. Several had been shot or trapped in the gardens around Paris recently. They will hardly ever become such a nuisance as they are in Australia and New Zealand. In a wild state in England the female produces eight litters of from four to eight, sometimes more, young at a time. The period of gestation is thirty days, and the female is in heat on the third day afterwards. They are capable of procreation at three months' old. It has been calculated that if allowed to breed unmolested one year, would increase in four years to considerably over a million, the precise number I do not now recollect. In England their increase is kept in check by the weasels, stoats, foumarts, foxes, hawks and owls. I hope a combined effort will be made by the farmers, wherever they appear, to destroy them root and branch. They are said to be spreading over Australia at the rate of one hundred miles a year. At this rate how long will they be in extending from Paris, County Brant, to St. Catharines? Our long and severe winters may help to keep them in check in some degree, as they cannot well burrow in winter, and every burrow made in the summer would have a chance to be stopped up by the snow in the winter. They cannot so well burrow in heavy clay soils, but in sandy and loamy soils they can soon honeycomb a field unless they are destroyed.

CHARLES JULYAN.

Presqu' Isle, Sarawak, Co. Grey.

SMALL FRUITS IN ORONO.

MR. EDITOR,—Having been a reader of your valuable monthly for many years past, I think it no more than just that I should say something as to its merits. My father was a subscriber to it, I believe, from its very beginning, and after his decease I found it to my benefit to still continue it; and I would say farther, that the monthly, with its yearly premiums, I would not be without for any other published, and this year I have added a few names to its already long list. I see that at the time of writing some of the premiums have come, and the subscribers are highly pleased with

the same.

I do a little in the fruit-raising, especially the small-fruits, and grapes. I have some twenty vines growing, among them some sixteen varieties, viz., Concord, Burnet, Delaware, Salem, Agawam, Moore's Early, Brighton, Hartford, Janesville, &c., which have all fruited. The Burnet, which was sent as premium, has shown some splendid fruit, it being almost an amber color when ripe and most delicious. The Concord is a fine grape, a good bearer, and the berries very large. I believe it to be a first-class grape for anybody to cultivate. The Brighton seems to be a good grower, and the fruit ripens earlier than other kinds, and seems to be of a tasteless nature and very small. The Janesville makes very little progress, has fruited three years, is inclined to mildew or get scabby. The Delaware is the best grower of all, and the fruit is best for eating when first picked.

I have great trouble with the birds, especially the robins, and find no better remedy than shooting them as soon as the fruit begins to ripen. I have noticed complaints of the same quite frequently, but no remedy.

As for strawberries there is a considerable quantity grown, the favorite kinds being Wilson, Crescent and Sharpless. The first named I have grown bushels, but the latter kinds I have only planted one year. They are now all in blow, and the signs of fruit are apparently good. I have under cultivation, at present, only an acre.

Thinking I have encroached too much on your valuable columns, I am a well-wisher of the *C. H.*,

A. A. TUCKER.

Orono, May, 1883.

MR. EDITOR,—Will you please let me know through the *Horticulturist* if cuttings from the Concord grape, also Rogers' hybrids, Nos. 3, 4, 9, 15, 22, 44, can be propagated in the open air or any of them, and oblige a

NEW SUBSCRIBER.

Ans.—Yes; all of them.—ED. *Can. Hort.*

TREE PLANTING ACT.

To Secretary O. F. G. Association.

DEAR SIR,—I am directed by resolution of the Council of the corporation of the municipality of Hope, to state that a by-law in conformity with the "Ontario Tree Planting Act" was passed at its last regular meeting, held on the 14th day of March, 1883.

Respectfully, &c.,

E. E. DODDS,
Clerk.

Port Hope, Ont., 22nd Mar., 1883.

It is gratifying to be able to lay before our readers this notice of the action taken by the municipality of Hope, and though this is the only letter of the kind received, we trust that it is not the only instance in which municipalities have taken such action.—ED. *Can. Hort.*

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

SIR,—Please answer the following questions:—

1. For how many years is it advisable to grow raspberries on the same ground? 2. Also strawberries? 3. May grape vines and fruit trees be pruned when frozen? My Burnet grape has fruited for the last three years but has never ripened.

R.

Toronto, 6th Feb., 1883.

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1. From six to eight years. 2. Two, or at most, three. 3. If you do not wish to use the scions or cuttings and do not make large wounds.

HORTICULTURAL GOSSIP, XV.

BY L. WOOLVERTON, GRIMSBY.

The Universe.—I have just been reading a book that I would like to place in the hands of every horticulturist who has a taste for reading. It is entitled "The Universe; or, the infinitely great, and the infinitely little:" it is written by Dr. Pouchet, Director of the Museum of Natural History, at Rouen, &c., was published in London in 1882, and contains 518 pages with 270 fine wood engravings. Everyone cannot be a thorough student of such sciences as Botany, Entomology, Geology and Natural History, a knowledge of which to so large an extent contributes to success in fruit culture; nor has every one a taste for the scientific nomenclature or the technical language of science; but a book of this kind places before one, in a manner as attractive as a novel, a carefully arranged and beautifully illustrated mass of interesting details drawn from these subjects.

The vegetable kingdom, for instance, is treated under such heads as the following, viz.: The Anatomy of Plants, The Physiology of Plants, The Sleep of Plants, Vegetable Sensibility, The Movements of Plants, Physiology of Flowers, The Nuptials of Plants, Seed and Germination, Giants of the Vegetable Kingdom, Vegetable Longevity, Migrations of Plants.

I am informed that a most valuable and attractive book on the insect world will soon be published by the worthy President of our Society. I am sure from what we already know of his ability in that branch of study, and from his attractive style of writing, that we shall each eagerly await the opportunity to become possessed of so interesting and useful a work.

Some errors corrected.—Among other interesting points touched upon in Dr. Pouchet's work, are those of Absorption and Circulation in plants. He shows that moisture and other elements are absorbed from the soil by the microscopic spongioles which terminate the young and almost invisible capillary filaments that cover the newly-formed roots. This absorption is not, however, direct, as any student of Botany knows, for there is no open end through which it can take place; but each spongiole is composed of one or more elongated cells, through the young and thin walls of which absorption takes place by a process called endosmose; and it is by the same process that the elements of nourishment are distributed from cell to cell throughout the tree. The young roots, however, soon become covered with a skin, which becomes harder, thicker with age, and through which absorption can scarcely take place at all. It will thus be evident that the common custom of piling manure and ashes closely about the trunks of trees for the purpose of nourishing them, is a great blunder, because that is just where the roots are old and hard, and least likely to absorb it. Manure should rather be scattered far about the tree, where the young fibres may take it up.

Again, a tree or plant will not absorb into its circulation the elements in the soil, until they

become oxidized, or combined with the oxygen of the air; in this form they are soluble in water and easily imbibed by the roots. It thus becomes evident that one great use of cultivation is to expose the elements of fertility in it to the action of the air, in order that they may unite with the oxygen thereof, and thus be prepared to nourish vegetation. From the facts above cited, it is also evident that it is altogether a foolish notion to bore holes in trees and enclose therein sulphur, iron filings, or other drugs, with the idea of curing fungus, blight, or yellows, because these substances are not in the proper chemical combination to be taken into the constitution of the tree.

The Field Mouse has been unusually destructive this winter, especially in the Niagara District. A snow fall, upon the surface of a strong crust, resulting from a previous ice storm, favored their depredations, and every orchard was more or less injured. Clean cultivation, and mounding up trees proved of no avail in this instance; well and ill kept orchards alike suffered.

Many of us folded our hands quietly by the fire during the great storm, consoling ourselves with thoughts of safety because of the careful heaping with earth which each tree had received in the fall; but from such peaceful thoughts we were suddenly aroused by the sad news of the loss of hundreds of beautiful trees. One orchardist lost three hundred fine young pear and peach trees; another, sixty bearing peach trees; another, his whole orchard of eight-year-old apple trees, and so goes the black list.

A few were thoughtful enough to trample down the snow about each tree, and this prudence was rewarded by perfect immunity.

One fruit-grower remarked that he had entrapped all the mice of his orchard by opening his cellar windows, coaxing them in, and then closing up the openings. Few people seem to distinguish between the house mouse (*mus musculus*), and the field mice (*arvicola*) which make their nests under fences, corn shocks, grass heaps, stone piles, and such places. I am very doubtful whether the latter would be found rushing from the field into a cellar, for he would be ill at home in a house.

The walnut, as an ornamental tree, was highly recommended at the winter meeting of our Association, and no doubt it deserves all the eulogies it received, but I have one accusation against it. I have one near my house, and I find it is a very great attraction to red squirrels, which come in great abundance for the nuts. Some of these animals have had the audacity to gnaw a hole under the eaves; and entering, have made their home above the ceiling, where they spend the nights frightening sleepers by constantly nibbling their stolen walnuts. Nor is this the worst part of their mischief; for in fruit season, I find them running from the walnut trees across to my packing house, where, almost before my eyes, the little thieves will steal choice pears and apples from the baskets, mount to the loft, and sitting upon the top of a pile of peach baskets, destroy these beautiful fruits, simply for their tiny seeds!

Why did you not shoot them? says some one. I did shoot several, but it was discouraging business, because it always seemed as if two came to the funeral of every victim, and I concluded to blame the walnut trees for the whole mischief.

The Fruit Growers' Association of Grimsby held a special meeting in the Town Hall, Grimsby, on Friday, 9th March, 1883. There were about forty members present, Mr. Murray Pettit, of Winona, the President, occupying the chair.

There were three sessions, morning, afternoon and evening, during which lively discussions took place upon such broad subjects as "The Apple, The Peach, The Pear," etc. At the close of each discussion an opportunity was given for questions which called forth much useful information, based upon the results of practical experience.

The following are some of the questions and answers of which I took a note:

How do you trellis for grapes? I put down permanent posts at the ends of the rows, and temporary ones between at a distance of about twenty feet from each other. Then during the

second year I put on the first wire, for clean fruit and easy cultivation.

Do you advocate close pruning? No. I consider too much pruning unwise, but on the other hand, enough should be done to prevent overloading.

What distance apart do you plant? Concords ten feet, some rank growers, as Rogers twelve feet, Delaware eight feet.

What kinds do you advise? If I were planting one thousand vines, I would plant one-third of early kinds, as Moore's Early, Worden's Seedling and Champion; one-third Concord; and one-third of late kinds, such as some of Rogers' Seedlings.

What age would you plant? One year old, unless very carefully transplanted. If older, great care must be used to preserve the fibrous roots. I would not plant more than six inches deep, else their growth will be retarded.

What soil do you find best for Concords? This variety succeeds much better on heavy than on light soils.

During the day a resolution was passed that will be of interest to many of the readers of the *Horticulturist*. It was in appreciation of the benefits that have accrued to the Grimsby fruit section, from the labors of Mr. A. M. Smith, and was passed by a unanimous standing vote.

The resolution read as follows:—"We, the members of the Grimsby Fruit Growers' Association, in council assembled, desire and embrace the opportunity of publicly expressing the high esteem in which our pioneer nurseryman and fruit-grower, Mr. A. M. Smith, is held by us all, and to assure him that we highly appreciate his earnest labors to improve and encourage the cultivation of those varieties of fruit which are congenial to our climate; that we highly prize the benefits of his careful study, long experience and kind advice, which has always been earnestly sought, and as willingly given; and that we trust he may be long spared to live and enjoy the confidence and esteem of his fellow fruit-growers, and the reward of his untiring labors."

Mr. Smith said in reply:—"This resolution is very pleasing to me on many accounts. But though I may have been the means indirectly of benefit to the fruit-growers of Grimsby, my object was not an unselfish one. I came a poor boy to Grimsby with faith in the capability of the section for fruit-growing, and the result has justified me in doing so. Had I remained here I might to-day have been a wealthier man than I am. I honestly believe that for all kinds of fruits there is not a more favorable section in Canada. If some of you gentlemen would take a deeper interest in the Fruit Growers' Association of Ontario, I am sure you would be well repaid. It has done more than many of you suppose for the development of fruit-growing in Ontario."

Among the papers read was one on the Plum by Mr. G. Cline, and one on the Peach by Mr. E. J. Woolverton. On the whole the day was spent in a very pleasant and profitable manner.

CODLIN MOTH.

I received a letter a few days ago from Wm. Trelease, Professor, as I suppose, in Wisconsin University, at Madison, Wis. He had seen my letter of enquiry, addressed to yourself some time ago, regarding the Codlin Moth. He says:

"Experiments by Prof. Cock and others, go to shew that Paris Green or London Purple are sure and safe preventives for the Codlin Moth. The most successful plan is to spray the trees thoroughly by means of a fountain pump or other force pump with the poison in the proportion of a table spoonful to each two gallon pail of water about two weeks after blooming, and to repeat the application a month later. The poison kills the young worms before they injure the fruit, and

thus has great advantage over bandages or other traps. Analysis shews that none of the poison remains when the fruit is ripe. The same remedy has been tried for currant worms, and as claimed, without any cases of poisoning; but hellebore is just as efficient there, and so much safer that there is not the slightest reason for using the deadlier poisons on small fruits. This season I shall experiment carefully with the arsenites on the University orchard, both to test their efficiency and safety for myself. I write directly that you may not have to wait for the June number of the *Horticulturist*, if you wish to use the poison this year."

From the tenor of the above letter, I think he has probably communicated with yourself upon this very important subject. Not being certain, however, I have deemed it advisable to lay the contents of his letter in full before you, so that, if deemed advisable, you may use it for the June number of the *Horticulturist*.

I must say I do not know of any good, cheap, fountain, or other force pump of a kind very suitable or efficient. Indeed the only one known to me is the common window pump used by store-keepers. Can you oblige me by stating if you know of any good article, where to be had and price.

Yours truly,

GEO. STRAUCHON.

[Can any of our readers give the desired information?—ED.]

THE WILSON STRAWBERRY AS A MARKET FRUIT.

(*For the Canadian Horticulturist.*)

I see by the April number of the *Horticulturist* that Mr. Croil purposes going largely into strawberry culture. To assist him somewhat in his laudable endeavor I will give the opinions of three of the largest growers of strawberries in the United States as to the value of Wilson's Albany Strawberry. It was my privilege and pleasure, along with yourself, to attend the meeting of the Mississippi Valley Horticultural Society, lately held in the city of New Orleans. Among many valuable papers read and discussed three were on the culture of the strawberry, one from the north, one from the south, and one between the two extremes.

President Earle having introduced Mr. J. M. Smith, of Green Bay, Wisconsin, Mr. Smith said that the paper prepared by him was "Strawberries for the North, and How to Grow Them." After stating that Hovey's Seedling and Early Scarlet were introduced at an early day, about 1830, Wilson's Albany Seedling began to make its appearance about 1860. It had been grown by a few for some years previous to the above date, although it was a novelty to many people until 1863. At this time it had taken possession of our northern markets, and as a market berry it has virtually held its own until the present time.

No one will claim that the Wilson is in all respects a perfect berry, still it has certainly shown itself to be the most remarkable one for the million ever yet put into cultivation.

He mentioned a great many new varieties which were worthless. He likes Seth Boyden, Triomph de Gand, Sharpless and some others, but not for market. Mr. Smith gave elaborate instructions on the cultivation of strawberries.

President Earle introduced Dr. McKay, of Madison, Mississippi, as one of the largest strawberry culturists in the United States, who read a paper on "The Strawberry Culture in the South." Dr. McKay spoke in high terms of the capabilities of the compact clay lands in Central

Mississippi for strawberry growing, and the esteem in which the berries are held, commanding the highest price in northern markets. He said during the last ten years we have tested about forty varieties, covering many of the old and well tested standards, and such of the new as seemed to give the greatest promise, and while we are free to say that among the new there are to be found many charming and valuable acquisitions, we are equally free to say that up to the present time we have found no single variety to be trusted so implicitly as the Wilson's Albany. The great ease and facility with which it adapts itself to latitudes, soils and seasons, is wonderful. Wherever other varieties do well, as a rule, it does better. When allowed to fully mature on our southern soils, where the saccharine elements are more liberally developed in all our fruits than in higher latitudes, its proverbial acidity is so blended with the sweet, that it deserves high rank as a "home and local berry." He spoke highly of the Charles Downing, Cumberland Triumph, Monarch of the West, Newnan or Charleston. "But were we to select two varieties for the South, we say Wilson first, and Charles Downing next." The Doctor gave a deal of instruction regarding field and garden work to procure large crops and fine fruit.

Mr. O. B. Galusha, of Southern Illinois, read a paper on the question, "Is there a better market strawberry than the Wilson?" He spoke in high terms of the Wilson as a standard, profitable market berry, and a great bearer with rich cultivation. After this paper was read, a general discussion took place on the merits of the Wilson and other berries. The Wilson came off triumphant.

All urged the necessity of high cultivation and irrigation; if these two important matters are attended to, success in the culture of strawberries is certain and profitable.

WILLIAM ROY.

Royston Park, April, 1883.

CHARLES ARNOLD.

(*For the Canadian Horticulturist.*)

Your words announcing in your May number the demise of our venerable friend fell like a sudden clap of distant thunder; so suddenly, so unexpectedly did they come. It scarcely seems possible that Charles Arnold, of Paris, with whose venerable form and energetic voice we were so perfectly familiar, has passed away from earth and all earthly scenes, and that your emphatic words are now seriously and eminently true, that "it is not to be our privilege to *listen to him again*." We cannot possibly realize the fact of the perpetual absence of Mr. Arnold from the various meetings of our association, so regular and so constant from its inception has he been. In his absence it will almost appear that there is no Fruit Growers' Association left, so much have we depended upon him as a part and parcel of us. Yes, we shall never see or hear him again in his kindly warnings and friendly counsels amongst us. Never again listen to the pleasing rehearsals of his ripe experience in fruits or in flowers. Let us ever be thankful for the kind and instructive words he has so left on record in the publications of our association. Although their author has passed away, yet those words he has left behind can never pass away, they are enduringly the property of the association. In these he is ever present and ever speaking, though bodily absent. They all teach us to study and to love the beautiful in sentiment and in nature. I shall be ever thankful for that last effort of his pen so pleasingly rendered, entitled "The seat on the hill top beneath the old tree," which he read at our last association meeting in Toronto, a copy of which was given in the *Canadian Horticulturist*. This is his epigraph and the last note of his familiar pen. It shows us that his large and warm heart still lived in the deep contemplation of the

beautiful in nature and sentiment, and astonished us with its vigor. I can never forget his parting from us. Neither collectively nor individually had we the opportunity of offering him a parting greeting, a kindly shake of the hand, or a last good-bye! Though he was so familiar with the association, its members and its work, yet he parted from us in a most unexpected and quite unceremonious manner. On the last day of our meeting, at about 4 o'clock in the afternoon, Mrs. Arnold came into the room and shortly afterwards he left with her, and we never saw him again. I saw him pass out, and should have liked to have spoken to him, but thought we should have another opportunity to do so, but it never came, and thus he left the meetings of the association and its work for ever. Oh, let us remember that although as Longfellow beautifully says, "Life is earnest," it is also remarkably short and very uncertain. And whatever our hand findeth to do we should do it with all our might, and like our dear departed friend, be ever up and doing, "while it is called to-day, for the night soon cometh wherein no man can work."

Yours fraternally,

B. GOTT.

Arkona, May 14th, 1883.

SUGAR OR ROCK MAPLE.

(*Acer Saccharinum*).

BY JACOB W. MANNING, READING, MASS.

This is in a broad sense an American tree for it extends from the extreme eastern part of North America to the Eastern Rocky Mountains, and from the highlands of the Gulf States to the watershed between the waters of the St. Lawrence and Hudson Bay. In all this territory it is found at frequent intervals on elevated land and along rivers, and is at home in all rocky formations.

This tree is often from three to five feet in diameter, and seventy to eighty feet high, large and straight enough to make ship-keels, growing naturally without any aid from man.

I measured a tree in Northampton, Mass., that had been planted sixty years that was eleven feet six inches in circumference, three feet from the ground; even this is small compared with some natural trees seen in old pastures.

The wood is close-grained and solid, and one of the handsomest of all light colored woods for furniture and house finish. The bird's-eye, curly and branched maple veneers that make such a rich and varied finish are made from it. It is almost the only wood used in the manufacture of boot and shoe lasts, for which a surprisingly large amount is used, and in many other industries where a solid and close-grained, but light wood, is necessary. As fuel it is but little excelled by any other wood.

No other native plant growth produces such delicious syrup as the rock maple. A sugar orchard is a valuable addition to a farm; even our street and lawn trees can be tapped without injury; they appear to grow as finely and live as long as those not robbed of their sap, which one would suppose was their vital fluid.

As a street, lawn or park tree it is justly valued as one of the best American trees. It is thrifty, comparatively free from insects, and is sure to grow into a well-balanced tree in nearly every locality. The shade is very dense, and yet grass will grow quite freely under single specimens where the wind blows away the leaves.

In planting to prevent monotony it is well to intersperse other trees of different outline. The gorgeous autumn hues of our forests are largely due to this maple. I witnessed at Newburg, N.

Y., on a cloudy fall day in suburban home grounds, laid out by the lamented A. J. Downing, the very best effects in the varied hues taken on by this tree; interspersed among other kinds, each with its own peculiar autumn color, and some still green, but the rock maple outshone them all. —*Boston Traveller.*

THE PRENTISS GRAPE.

The following is from T. T. Lyon, the well-known pomologist of Michigan, written for the *Rural New Yorker*:—The Prentiss grape is not fully tested away from the place of its origin, hence little can be said of it from personal experience. I have found it a vigorous grower with healthy foliage, and have yet to hear of any objection to it in this respect. If I may judge from specimens seen at various exhibitions at which I have been privileged to test it in comparison with many others, I must characterize it as one of the finest of the new white grapes, so far as appearance and quality are concerned; while the bunch is of medium size, and, from its compactness and the toughness of its skin, it is, to all appearance, well qualified to bear the rough handling to which a market grape must be subjected.

The following is also taken from the *Rural New Yorker*:—This new and delicious grape has been widely disseminated. The cluster is of moderate size, very compact; berries a little below medium, of a greenish white, and generally crowding in the clusters; the skin, though thin, is tough and it bears handling very well, and it is an excellent keeper. Next to the Duchess, I think the Prentiss the best white grape in quality, but in hardiness it surpasses the Duchess, though not equal in this respect to the Concord. I have planted some fifteen or eighteen vines in my vineyard, and think it promises well; next year I shall expect fruit. Like the Delaware it will need the best care and management to make it successful.—P. M. AUGUR.

SORGHUM.

The promise of sorghum as a sugar-producing plant is now large. It seems safe to predict that before many years, through the improvement of this plant and through the better acquaintance with its habit of growth, we shall be enabled to so increase its percentage of sugar, and so decrease the unfavorable combinations which disturb the manufacturer as to secure for consumption home-grown sugars. Before this, however, shall be accomplished, it will be necessary to determine experimentally or empirically, many points concerning the plant. While the apparent interest of the grower and the manufacturer may not at first seem identical, yet it will be found in the end that their interests are in common. It is well worthy of trial, whether or not, the growing of sorghum for sugar purposes may not require more distant intervals of planting, so as to secure the maximum of light and the minimum of shade to the growing plant. In Trinidad it is claimed that sugar canes which are exposed to the light during growth give far better results in sugar than those which are shaded.—E. L. STURTEVANT, *Director, N. Y. Experimental Station.*

THE SWEET CORN CANNING BUSINESS.

The extent to which this business is carried on by our neighbors may be gathered from the following figures. Why is it that so little is done in this line in Ontario? Surely we have a climate fully as suitable to the production of sweet corn as that of Maine, and there is a market open to us as well as to them. Are we lacking in business capacity as a people, or unable to conduct such enterprises successfully? Surely we cannot admit any such thing, and yet why is it that we have no such corresponding establishments in this country? This is what is being done in Maine. We copy from the official report of the State agent.

"The Winslow Packing Company operated fifteen factories in this State during the year 1882. Following is a list of the places where they are located, and the acreage of corn grown for each:

	ACRES.
Riverton	75
Yarmouth	73
Mechanic Falls	185
Farmington	150
Wilton	150
Fairfield	180
Skowhegan	245
West Waterville	150
North Anson	190
Buckfield, Canton	205
Norway	180
Bridgton	175
Hiram	60
Raymond	80

"The total product of the above-named factories was 125,000 cases of two dozen cans each, or 3,000,000 cans. This company also packed 7,216 cases (173,184 cans) of succotash, (corn and beans). They also put up 12,207 cases (292,968 cans) of apple, and 8,462 gallon packages of the same product. The apple thus put up is cored and quartered, and when opened much resembles the choicest green apple.

"The Portland Packing Company operated seven factories. The table below gives the location of these factories and the number of acres grown for each in 1882:

	ACRES.
Cumberland Mills	250
Sebago Lake	360
Naples	400
Fryeburg	225
Winthrop	250
Vassalboro'	200
Wells	350

"The total amount of corn packed by this company was 90,000 cases of two dozen cans each, or a total of 2,160,000 cans.

"Burnham & Morrill, Portland, operated in 1882 seven factories, the following are the places where located and acreage of each:

ACRES.

South Paris	400
Minot	375
East Baldwin	50
West Scarborough	—
Denmark	350
Harrison	400
South Norridgewock	400

"The total amount put up by this firm was 96,000 cases of two dozen each, or a grand total of 2,304,000 cans."

Thus it will be seen that these three companies put up over seven millions of cans, and took the product of over six thousand acres of sweet corn. The agent states that within the past few years a large number of such establishments have sprung up, so that he gives the total number of cans put up in 1882 as 10,881,400. The prices paid to the farmers is two cents per pound, which in favorable seasons, and with good cultivation, averages forty dollars per acre. The varieties most grown are Early Crosby, Early Triumph, and Early Minnesota.

Now we can grow not only these kinds but also the late maturing varieties, and extend the season of sweet corn canning in some parts of Ontario a month longer than in Maine. Why do we not can the canned sweet corn that our own people consume? Is there a reason, and what is that reason?

IS FRUIT RAISING PROFITABLE?

The *Williamette* (Oregon) *Farmer* thus comments upon this subject, after stating that W. H. Jessup, a successful fruit-grower in California, is of the opinion that the market for fresh fruit is limited and uncertain, but that in canning or drying fruit for the markets of the world there is scarcely any limit or uncertainty. Of the two Mr. Jessup gives the preference to the dried fruit business, as being the most certain in the long run, because the fruit can be put up cheaper and transported at less cost than the canned fruit, while, if properly evaporated it possesses all the good qualities of canned fruit of the same grade.

The *Farmer* gives the following particulars respecting dried fruit:

Apples turn off 5 to 5½ lbs. of dried fruit to a bushel of 50 lbs. weight, so that they hardly yield more than ten per cent. of dried product. Machine dried apples sell readily at 9 to 10 cents and estimating the product at 5½ lbs. to the bushel, the result would be 50 to 55 cents per bushel. Any person can see that to dry apples in the orchard, and realize that much, will pay handsomely.

Pears turn off about 7 lbs. per bushel, as near as we can estimate, and will sell as well as apples, and perhaps better. So few pears are dried that we have never made an estimate, but we have for two years in succession dried Bartlett pears very nicely, and sold the products at 16 cents per pound, which was $1 per bushel.

Plums yielded from 20 to 25 lbs. to the bushel of 50 lbs. We noticed that Peach plums, Columbias, Coe's Golden Drops, Yellow Egg plums, grown in an orchard, turned off 25 per cent. of dried product, say 12½ lbs. to the bushel, and as we sold extra choice fruit for 16 cents, well packed, that was $2 per bushel. But 16 cents is over what we can expect. Suppose that really choice pitted plums sell readily for 12 cents, which is probable, and that they turn off 10 lbs. per bushel, then it is evident that there can be great profit made raising and drying them.

Prunes, again, dried with the pits in, turn off 28 to 34 lbs. per 100 weight. If we average them

at 15 lbs. per bushel, and can sell at 8 cents per pound, there is $1.20 per bushel.

Take the range of choice fruits of the varieties for drying of plums and pears, and it must be apparent to every one that there is great profit in growing and drying them for market. If the grower can net 50 cents per bushel for the fruit on the tree, there is no branch of husbandry that can be more profitable.

One thing to be remembered is that there is no fruit tree more healthy than the plum and prune, and no tree bears more certainly and more abundantly. This is a fact that is well established in our state.

We figured up carefully the whole matter before setting out an orchard, and came to the conclusion that it will pay handsomely to grow fruit when prunes will be worth 6 cents, and pitted plums 8 cents per pound. Even at that price the product will average to yield $1 per bushel in value, and the expense of curing need not be over one-fourth of that amount.

We have no sympathy with the sensational figures put forth by over-sanguine persons. It is true that some fruit may sell at fancy prices, but we must count on seeing an immense product of canned and dried fruits on this coast, and calculate that prices will drop with production on a large scale. In the Eastern states, and even with us, they largely consume Turkish prunes of a very cheap grade. They are imported for about 4 cents and a high duty. If we make a better prune and compete with their imports, we have still to sell at a low price as soon as the market is over stocked. We hold that we can thus compete, and yet make a good profit on our fruit.

THE PEACHES GROWN FOR MARKET IN DELAWARE.

Mr. P. M. Augur, of Middlefield, Conn., made a visit to the peach orchards of Delaware, and gives the following statement with regard to varieties there:

"Those have been most successful who have held to the old, well tried varieties.

"The Alexander, Wilder and Amsden are about the same. The first being considerably planted for very early shipments. Hale's rot badly in a wet season. Beatrice too small. Early Rivers rot nearly as badly as Hales. But none are as good as Troth's Early except in time of ripening. Early York is nearly superseded by Mountain Rose. Old Mixon is very hardy and a good bearer, and a good peach but comes in the glut of the season. Stumps, as good, closely following Moore's Favorite, very good, resembles Old Mixon. Ward's Late is good, following the Stump.

"Among yellow peaches Crawford's Early has had a great run and still has, but the impression is that Foster is going to prove better. Crawford's Early is rather tender and a little inclined to deceive. Reeve's Favorite is one of the choicest peaches following Crawford's Early, is considered not quite productive enough, but this year the trees are literally breaking with their load; quality best.

"Crawford's Late is one of the most important peaches in Delaware, has held, does hold, and will hold a prominent place.

"Susquehanna is perhaps the very best peach, but not productive enough to be much planted.

"Mary's Choice is very good or very poor, depending on the amount of fruit it is allowed to carry. When overloaded it is poor, when thinned it is superb. It is productive to a fault, and needs thinning.

"Salway at its best is superb, inclines in Delaware to ripen one-sided, does better on the Hudson.

"Smock is *the late* peach, fine for canning and will yield to the basket one lb. more dried fruit

than any other sort. Many say that in planting a large orchard the Smock should have one-third the ground.

"What is imperatively needed now is a better early shipping peach. Hale's Early rots, Alexander and all its class are soft and cling. A Mountain Rose, as early or earlier than the Alexander, would be a fortune to its possessor if rightly managed.

"It is rumored that such a peach is in hand in southern Delaware; indeed I saw the tree, and those who are authority in such matters say it is a great thing. But it is too early to say more yet.

"The market calls for and will certainly have such a peach some time in the near future."

VEGETABLES IN ENGLAND.

The *Pall Mall Gazette* thus speaks of English-grown vegetables as compared with those of Canada:—

"Of thorough going fruity vegetables—such as the tomato—we in England know nothing. We never have sun enough to ripen them properly; and even with all the appliances of modern gardeners, they never get thoroughly red and soft throughout in our gardens as they do in the open air under a Canadian or Italian sky. They always have a half-green taste, and are wholly lacking in the true rich tomato flavor. Indeed, the tinned American specimens, though tasting of the solder, of course, are better savored after all than our poor, starved, sunless English things. As to purple egg-fruit and green chow-chows, we know them not at all; while the profusion of rich red-fleshed watermelons and primrose-skinned squashes and golden pumpkins in a Massachusetts market would astonish Covent Garden. These things require the sun to ripen them, and we see his face here as a rule for some two and a half hours weekly, as duly registered at Glynde Place, Lewes.

"Then, again, there are the winter cherries, the sweet potatoes, and best of all earthly vegetables, green Indian corn, eaten off the cob with fresh butter, and likest to nectar of all mortal delicacies. As for pulse generally, our beans are all stringy; we have neither the variety nor the tenderness of the American bean. Our peas have some good points—for English peas; but they are not half so large, or luscious, or melting, as American peas. They take too long growing, and have got old and hard before they are big enough to pick.

"In the matter of leafy vegetables we can do a little better, but not enough to boast about. We are strong in salads; our climate provides us with plenty of fresh green lettuce, and plenty of slugs, too, to hide in its recesses. But our cauliflowers and broccoli are not nearly as good as the American; they are neither so white nor so delicate in flavor. We can grow cucumbers (under glass), because cucumbers are eaten green; but what a miserable farce are our vegetable marrows!

"What is true of vegetables is even more true of fruits. To be sure, our English hot-house grapes are the best in the world; but for strawberries, raspberries, currants, gooseberries, plums, and cherries, we must go to America."

SHALL WE PLANT LARGE OR SMALL TREES?

A resident of one of our large villages, who had come into possession of a line lot which he

wished to plant, but who had had little experience with tree culture called on a neighboring nurseryman to make purchases. He wanted nothing but large trees—two inches in diameter if he could find them, and ten feet high. He cared much less for the kind than for the size—anything which was gigantic, early or late, fruit or ornamental, was eagerly taken. The nurseryman frankly gave his opinion that trees of moderate size would be better, but the purchaser quickly replied, "I want big trees *now*—I may not live for the small ones to grow up." He carried off a load of monsters. In a few years he came again to make additional purchases. The nurseryman at once remarked, "I suppose you want all the largest trees you can get—I think I can supply you." "No! no!" exclaimed the purchaser, "I've had enough of big trees! No more for *me*! Those I got of you have scarcely grown any since, the smaller ones have overtaken them, and they are ever so much handsomer and more thrifty—give me small, vigorous trees." This incident tells the whole story, and should be remembered by inexperienced planters. Many years ago, Sir Henry Steward made a plantation of large trees in the moist climate of Scotland, but they made little growth and had a sickly appearance. It was then that Loudon, with his long and extensive experience as a landscape gardener, offered to make a public test with any one who would try large trees, he himself planting small and thrifty ones with full roots, in rich, deeply trenched, and well cultivated ground, with the confident assurance that in a given number of years he would show trees not only larger but immeasurably finer in appearance.—*Country Gentleman.*

THE EARLY PEACHES.

Mr. H. M. Engle, of Marietta, Penn., wrote to the *Gardener's Monthly* the following account of his early ripening peaches. The public will look with interest for his report this season:—

We have fruited this season twenty-six varieties claimed to be from one to three weeks earlier than Hale's, a number of which fruited on the same grounds two years ago, and several for the last six to ten years. I have settled down to the firm conclusion that there is not three days difference in time of ripening of the following varieties, viz.: Amsden, Alexander, Wilder, Musser, Bowers' Early, Baker's Early, Alpha, Governor Garland, Sherfey's Early, Nectar, Early Canada, Waterloo, Downing, Saunders, Cumberland, Honeywell's, Climax, Briggs May, Our No. 4. The eleven first named have leaves with globose glands. Waterloo has reniform glands, and the seven last named are glandless. All the above named varieties are just over, while Early Beatrice, Louisa and Early Rivers are just coming in. We picked the first ripe peaches about the 22nd of July, while two years ago the first were ripe about 26th of June. Early Surprise is just coloring and will ripen about with Hale's. Early Rose and Early Lydia quite green. Flater's St. John, said to be the earliest yellow peach, will ripen, I think, with Troth. In testing these varieties we had fixed on several as earliest, but find that comparative earliness varies with same varieties, on the same ground, and with the same trees, in different seasons.

THE FUTURE OF CANNED GOODS.

The *Sea World* says "The future of the canned goods trade of this country is on the whole very promising, though the business is now cursed by many frauds that would kill a trade of less vitality than that of packing. The preservation of fruits, vegetables and meat in hermetically

sealed cans is an industry of comparatively recent origin, and yet it is of vast extent and importance, giving employment to millions of invested capital and thousands of operatives. As extensive as this trade already is, it is yet in its infancy. This is a vast field awaiting further development. At the present time there are thousands of families who will not use canned goods on account of the abuses that now curse the trade, and from this cause their consumption is greatly restricted. No one has yet formed any idea as to what vast extent canned goods would be consumed if there were no light weights or trashy goods, and it was known that the most scrupulous care was exercised in the packing of these goods. Unfortunately there is among people a strong belief that but little cleanliness is observed in packing-houses, and this, of course, keeps many from eating canned goods who would otherwise do so. This belief is, to a certain extent, based on good grounds, for there are some houses which do not exercise the proper neatness and care in handling their fruits, just as there are some houses that are willing to injure their trade by packing trash. We are glad to say, however, there are many houses to which this does not apply, for they require as much cleanliness and neatness in their packing-houses and in the canning of fruits, as can be found in private kitchens. These firms have justly won a high reputation for their goods, and are more than repaid by the enhanced prices which they command. When all packing-houses are run on the same principle, and light weights and trash are no longer known, then the canned goods trade will begin to hold the position which its importance should command."

A TRELLIS FOR PEAS.

The best substitute for pea brush we have found, is a trellis of galvanized iron wire. The peas are sown in double rows, six inches apart. A post, six inches in diameter, is set firmly at each end of the row; it may be round or half round, set three feet in the ground, and of a height suited to the variety of pea. As soon as the vines are large enough, the wire is made fast to the post, about six inches from the ground, carried to and passed around the post at the other end, and back to the starting point. Here it is made fast; it may be cut off, but still better, two or three turns are taken around the post and another double wire stretched about eight inches above the first, and so on until as many wires as needed are put in place. We use No. 18 wire, which measures 150 feet to the pound. If over 200 feet long, a similar post should be set mid-way of the row. Stakes (plasterers' laths will answer) are set every ten or fifteen feet along the row, to keep the wires from sagging. These have notches cut in them, in which the wires are placed; or the wires may be attached to them by means of a small wire or cord. When no longer needed, the wire is wound up upon a reel, and, with the posts, stored away for another year. Pea-growers for market allow the vines to lie upon the ground, and claim that the crop is not enough larger when brushed to pay the cost of cutting and placing the sticks. In the garden, neatness, and especially the greater ease of picking, make it necessary to use brush, or a substitute. Those who cannot get brush, will find the wires, supported as above described, very convenient. The chief precaution to be observed is, to have the wires of this trellis so near together that the vines can reach them as soon as a support is needed.—*Am. Agriculturist.*

WATERMELONS.

J. W. Shaw, of Ohio, writing to the *Fruit Recorder*, tells how he succeeds in raising melons:

"The ground was in corn last summer and produced such a yield that the thought struck me that it would be a good place for watermelons. I plowed the ground when dry, (manured heavily with sheep manure before for corn,) and manured the melons in the hill. I first harrowed the ground until it was as fine as an ash heap; furrowed the ground one way; made nice, flat hills; planted from three to five seeds per hill and thinned to three plants to the hill; I manured a part in the hill with sheep manure, and a part with rich black loam which I obtained from the fence corners; covered about two inches deep. The melons came up and grew very fast; such leaves, I never saw the like, and I never saw such a set of melons anywhere; vines, very dark green. A part, that was not manured in the hill, does not look so well. It has been very little trouble to keep the bugs off this year; I put fine plaster on the vines once a week; I think this helps to keep them away. Have hoed them three times; twice after rain, as soon as the ground would permit, once when dry; after working, I go over the ground and pull up all large weeds, if any. Melons should be worked well at the start, then the vines will not trouble you so much."

THE FLOWER GARDEN.

SOWING SEEDS.—Annuals are propagated exclusively from seed. They are sown after two ways: the one in the borders where they are intended to remain; the other in prepared beds, from whence they are translated to the flower garden. The former plan, although the most simple and most ordinary adopted, has many inconveniences; one of the principal of which is, that the ground is occupied for a long period before they arrive at perfection. It would, therefore, be the more advisable, if it were possible, to sow all annuals in prepared beds, and afterwards transplant; but there are some, such as poppies and similar-rooted plants, that do not bear transplanting, so that these, under any circumstances, must be sown where they are to flower. It is also essential, in order to ensure success in raising seeds of any kind, to bear the following important rule in mind. That the smaller the seeds, the less deeply should they be covered with earth; indeed, some seeds are so fine that they ought to be sprinkled slightly over the ground, and should the weather at the time be very dry, a thin layer of damp moss ought to be placed over them till they begin to germinate; but there are few hardy annuals that require such extreme attention as this, such care being more intended for the raising of Calceolaria and other minute seeds in pot-culture.

BIENNIALS are those plants, principally hardy ones, that do not generally flower until the second summer's growth and when properly planted out, grow most vigorously the first summer and autumn, then bloom profusely the second season and die. The section includes some splendid flowers for effect, scarcely equalled in any other for decoration either in the open beds or in pots. Those which are inclined to an annual style of growth should be sown not earlier than June and July, to avoid grossness of growth, which is unfavorable for severe winters; such are Wallflowers, Canterbury Bells, Borage, Foxglove, Œnothera, Honesty, Sweet Williams, Hollyhocks, Sweet Scabious, Dianthus corymbosus, French Honeysuckle; and those inclined to a perennial or triennial duration, may be sown late in May to obtain extra size and vigor; such are Campanula pyramidalis, blue and white, Valerian, some species of Dianthus, Verbascum, Rose Campion, Antirrhinum, Brompton Stocks, &c.—JAMES VICK.

IMPROVEMENT OF SCHOOL GROUNDS.

The Michigan State Horticultural Society has for some years been awakening sentiment looking toward the ornamentation of the country school premises in that State.

The society proposes this year to offer an additional inducement in the way of premiums to the school districts that will make the best exhibits of flowers produced under the care of the children upon the school premises. The following is the exact wording of the offer, as it will appear in the premium list:

"For the largest and best collection of cut flowers grown by pupils in school grounds of any school house in any district in this State; first premium, $15; second premium, $10; third premium, $5; fourth premium, $3."

The State Fair, where the flowers are to be exhibited, will be held in Detroit in September next, and the State Horticultural Society will undertake to receive the flowers, display them, and see that a proper viewing committee passes upon the relative merits of the various exhibits.

There is great room for improvement in the grounds about our school buildings in Ontario. For the most part they are as barren of vegetation, other than weeds, as the Desert of Sahara.

THE VICTORIA GRAPE.

Miner's Victoria, a white seedling of the Concord, has been praised by the *Rural* in past years, and this year's experience does not incline us to recall or moderate anything we have said. It is with us the hardiest and most productive of vines, our only specimen never having been injured or mildewed in the least, while it yields more bunches and more perfect bunches than any other vine in our collection that has been well tried. It ripened this year September 5.

Utterly alone has the *Rural* kept this fine variety before the public, and we dare to say that, in spite of its slow entry into public favor, it will at length make its way there. Its quality is fully as good as the Concord; it will ship as well; it ripens as early, and the canes have remained uninjured with us while those of the Concord have been killed. We speak thus confidently because we know from experience that any variety of grape that will thrive in the *Rural's* New Jersey Experiment Grounds, will thrive over a very wide extent of country. The bunch is compact and a trifle clustered. Berries are large, round. The skin rarely cracks, and is covered with a dense white bloom.

Our only specimen of the Victoria was given to us by Mr. Miner, the originator, in the Fall of 1878. It bore the second and every year since. The present season we counted (Sept. 15) 55 bunches, all of medium size, some shouldered, some not—all free from rot or blemish.—*Rural New Yorker.*

THE HYBRID CLEMATIS.

Dr. Geo. Thurber gives valuable information on the Clematis in the *American Agriculturist* for May, from which we clip the following:

Nothing in the history of horticulture is more striking than the improvements that have been

made in the genus Clematis during the last twenty years. We leave out of consideration at present the fine, erect, herbaceous species, and only refer to the climbers, known under the general term of Hybrid Clematis. The production of these plants was made possible by M. Von Siebold, who brought from Japan, *Clematis patens* and other large flowered forms. Others have since been introduced from Japan and China. With these materials, English and French florists have produced a series of hybrids, which, for size, beauty of form and richness of coloring, can only be described as wonderful. During the last twenty years there has been an almost annual succession of these new varieties, until they are now so numerous that an adequate descriptive catalogue fills a good-sized volume. The methods of propagation have been so far improved, that what were not long ago costly varieties, are now within the reach of persons of moderate means. Considering the great beauty of these flowers, they seem to be slow in acquiring a popularity in this country. If one has room for but a single climber, he can select nothing more satisfactory than a clematis. If he wishes to take up a floral hobby, and make a collection of choice varieties, he can find no class of plants that possesses greater interest than these. The varieties are hardy. They climb from four to twelve or more feet. Some bloom in early spring, some in summer, and others continuously. In size, the flowers range from two to ten inches in diameter. They are single and double, and vary greatly in shape of parts. The colors are from white, through delicate tints of blue, lavender, and wine colors, up to the most gorgeous of purples, with a great variety of shadings. The vines, if given a low support of some kind, will soon cover it with a sheet of flowers, or they may be laid flat upon the ground and pegged down to form the most effective of bedding plants. We have not seen them tried in window or balcony gardening, but have no doubt that they will be found among the most satisfactory climbing plants for this use.

TRANSPLANTING.

There is a principle in transplanting cabbage and other succulent plants which is unknown, or overlooked by many parties. They seem of the opinion that the sooner a plant is reset after being taken from the seedbed, the more sure it is to live. A moment’s thought will show the fallacy of this idea, if it does not a little practice will.

The plant gets its supply of moisture and sustenance from the soil by means of numerous small mouths at the extremities of fine rootlets. When the plant is removed from its seedbed, more or less of these are of necessity broken, and the evaporation is continually going on from its leaves more or less rapidly, according to the degree of heat and sunlight it is made to stand. If transplanted at once, it follows that the plant must of necessity wilt badly, and if the weather is hot and soil dry it may never survive. If, however, on being removed it has its roots “puddled” in muddy water, and is then laid in a cool, moist place, in from twelve to forty-eight hours numerous small white rootlets will be formed, the leaves will stiffen up and every energy of the plant is set at recovery. In other words, the plant is convalescent, and if given half a chance for its life will commence growing with renewed vigor. For these reasons, plants which have been well packed and transported considerable distances by express will often wilt less on setting, and start to growing sooner than those which are reset at once when taken from the seedbed.—*Raleigh, North Carolina, Farmer.*

BOOK NOTICES.

INSECTS INJURIOUS TO FRUITS.—This work, by William Saunders, F. R. S. C., illustrated with 440 wood cuts, has long been needed by the fruit-growers of America. As the years pass on the insect enemies that prey upon our trees become more and more serious in their depredations. This book will make our fruit-growers acquainted with those insects which prey upon their trees and fruit, and with the means of combating them. The first part of the work treats of the insects injurious to the apple; first, those that make their attacks upon the roots, then those that prey upon the trunk, and those that confine themselves to the branches; next those that feed upon the leaves, and last, those that destroy the fruit. In the same manner the insects that prey upon the trunk, branches, leaves, and fruit of the pear, the plum, the peach, the apricot, nectarine, cherry, quince, grape, raspberry, blackberry, strawberry, currant, gooseberry, melon, cucumber and orange, are described and treated. Under each of these heads is given a description of those insects that tend to keep in check these depredators, so that the fruit-grower may be able to recognize his friends and tenderly spare them, while he destroys without mercy those that destroy his crops. No work covering this ground has hitherto appeared, and it will be found exceedingly convenient to have the information upon these subjects placed together in convenient form, where the matter is so arranged that the information can be obtained with the least possible consumption of time. Hitherto the information contained in this book, if it has existed at all, has been scattered through numberless volumes of reports, monthly magazines and public documents, where they were comparatively hidden from the person seeking information. The thanks of the fruit-growing public are due to Mr. Saunders for the pains he has taken in thus bringing together in compenduous form information so very desirable, and yet for the reasons before stated, almost entirely unobtainable. Mr. Saunders possesses, in an eminent degree, the qualification requisite for the production of such a work, having made insects a study for more than a quarter of a century, and that specially with a view to their relation to our fruit-growing interests. Himself a fruit-grower, and President of our Fruit Growers' Association, he has taken a deep interest in all that affects fruit production. Much of the information contained in this work is the result of his own personal observation and experience, and our fruit-growers can rely most implicitly on every statement which the work contains. Of the book it is but just to say that it is printed in clear type, on beautiful paper, and the cuts are executed in the most perfect manner. Nothing has been left undone to make it a complete compendium of our knowledge of the subject of which it treats, worthy of being placed in the hands of every person interested in these matters. The author has dedicated it to the fruit-growers of America, in the earnest hope that it may be of practical use to them in their warfare with destructive insects in which they are constantly engaged. We confidently commend the book to every grower of fruit as an indispensable companion.

REPORT ON RUSSIAN FRUITS.—Mr. Charles Gibb, of Abbotsford, Quebec, visited Russia last summer with the view of ascertaining what varieties grown in the more northern portion of that country are of sufficient value to be introduced into the more northern portion of Canada. Since his return he has embodied his observations in a report, for a copy of which we are indebted to him. He states that the names of fruits in Russia are hopelessly confounded, so that it is very difficult to be certain as to the variety by the name given to it in different parts of the country. He states that the leading apple of the Volga is the Anis, which is highly prized and very largely grown. It seems to be capable of enduring a climate of 58° below zero, that in latitude 55 there are twelve villages, where the peasant proprietors engage entirely in apple growing, and that the product of these villages in a good season amounts to fifty thousand dollars. This is the coldest orchard region known, and the Anis is their hardiest tree. This Anis apple seems to comprise a number of varieties, one spoken of as the pink colored variety, another as the Blue Anis. The

leading apple of the Russian Steppes is Autonovka. In the climate of Toula, latitude 54, some 480 miles further north than the city of Quebec, it is considered their hardiest apple as well as the most productive. It certainly is a most productive tree, sometimes yielding nearly half a ton of fruit. But we have not space to mention all the names Mr. Gibb describes in his report. It is to be hoped that a number of them will be found adapted to our severe northern sections. He also found some varieties of pear sufficiently hardy to endure the climate of latitude 54 on the Volga, yet we are inclined to believe they are both small in size and of inferior quality as compared with the pears to which we are accustomed. He found cherries of a hardy variety that were grown in great abundance; that in the cherry districts of Vladimer there are many orchards comprising 15,000 trees each, and that entire trains of cars are sometimes loaded with the fruit and sent to the markets; that indeed the chief industry of this section is cherry culture. The trees are bush form, and when they become too old to bear profitably, the old parts are cut away and the sprouts allowed to take their places. When ripe the flesh of the cherry is a purplish red, the skin a reddish black, and the flavor a rich mingling of sweet and acid. Mr. Gibb sees no reason why these cherries may not be profitably grown in the Province of Quebec. He also found plums in central Russia, chiefly of the prune family. These plum trees, like the cherry, are very dwarfish in habit, more like bushes than trees. They are usually grown from suckers. From what we can gather, after examination of the report, we are inclined to believe that we may hope to find both apple and cherry in Russia that will be adapted to our colder parts of Canada, but that in pears and plums they have little to offer us.

THE FRUIT-GROWERS' FRIEND.—We are in receipt of a little pamphlet of some thirty pages, by R. H. Haines, of Moorestown, N. J., which treats of the raising of fruits for pleasure or profit; about eight pages are devoted to the growing of strawberries, containing directions for planting, distance for planting, cultivation, mulching, winter protection, picking, marketing. The remainder of the treatise is filled with similar information with regard to raspberries, blackberries, currants, gooseberries, grapes, and fruit trees. A large and practical amount of information is brought together in small compass, and we commend the work to the attention of our readers.

TRANSACTIONS OF THE INDIANA HORTICULTURAL SOCIETY FOR 1882.—We are indebted to Mr. W. H. Ragan for a copy of this report, which contains the proceedings of the 22nd annual meeting, together with the several reports made thereat, and the discussions thereon, all of which are interesting to those engaged in horticultural pursuits.

HINTS ON FRUIT CULTIVATION (by Chas. A. Green, fruit-grower, Rochester N. Y.) contains a handsome colored plate of the Jefferson Grape, and over thirty illustrations of fruits. It describes many valuable new fruits and directions how to plant and cultivate them. It is sent free to all applicants.

OUR OWN FIRESIDE.—Is the title of a family magazine published at Whitby, Ontario, at 25c. a year.

HOW TO SUCCEED WITH VERY SMALL SEEDS.—A correspondent of the *Gardeners' Monthly* says: "I find it a good plan to sow small seeds like begonia, etc., on a very soft brick, dug out enough to hold say one-quarter of an inch of soil. Place the brick in a pan of water. The brick draws moisture enough to keep the soil in a nice condition." To this the editor adds: "This is also a capital way to raise ferns, orchids and other fine seeds. Sown on a shallow brick, set in a pan of water, they will be almost sure to grow, the only care required being to see that the water is always kept in the pan. When done in the usual way, these fine seeds are sure to be washed away by the watering pot, no matter how carefully the watering is tended."

THE FLOWERS.

Spake full well, in language quaint and olden,
One who dwelleth by the castled Rhine,
When he called the flowers, so blue and golden,
Stars that in earth's firmament do shine.

Stars they are, wherein we read our history,
As astrologers and seers of eld;
Yet not wrapped about with awful mystery,
Like the burning stars, which they beheld.

Wondrous truths, and manifold as wondrous,
God hath written in those stars above;
But not less in the bright flowerets under us,
Stands the revelation of his love.

LONGFELLOW.

RECIPE FOR CORN BREAD.

Two cups Indian, one cup wheat,
One cup sour milk, one cup sweet;
One good egg that you will beat,
Half a cup molasses, too,
Half a cup sugar add thereto;
With one spoon of butter, new,
Salt and soda each a spoon;
Mix up quickly and bake it soon;
Then you'll have corn bread complete,
Best of all corn bread you meet.
It will make your boy's eyes shine,
If he is like that boy of mine;
If you have a dozen boys,
To increase your household joys,
Double then this rule I should,
And you'll have two corn-cakes good.
When you've nothing nice for tea,
This the very thing will be;
All the men that I have seen
Say it is of all cakes, queen;
Good enough for any king
That a husband home can bring;
Warming up the human stove,
Cheering up the hearts you love;
And only Tyndall can explain
The links between corn bread and brain.
Get a husband what he likes,
And save a hundred household strikes.

LYDIA M. MILLARD.

DOMESTIC RECIPES.

STEWED POTATO.—Take potatoes boiled the day before; chop coarse and put on stove, covered with milk; put a plate over them and cook slowly; don't stir them; add a piece of butter and a

little salt. Take off the plate and cook until they thicken.

MACARONI.—Boil until tender enough to put a fork through easily. Put in a deep dish a layer of macaroni, with a little melted butter and salt; grate cheese over this; fill up the dish as above, the last layer of cheese without butter. Pour over all milk so you can see it on the edge of the dish. Bake until a nice brown.

TOMATO SOUP.—One can tomatoes, one quart boiling water; put through a sieve; then put on the stove with a teaspoonful of soda, one pint of milk, a lump of butter; pepper and salt to taste. Let it simmer (not boil), and roll three or four crackers to thicken; very nice.

SALAD DRESSING.—One tablespoonful of flour, two raw eggs, one cup of water, one-half cup of vinegar, mustard, salt and pepper to taste. Beat the eggs well; mix the other ingredients, and stir into them. Warm them over a boiling kettle, adding a tablespoonful of butter. Stir constantly until it thickens and then cool quickly.

CREAM FRUIT-PIE.—Make a pie of fresh, canned or jam strawberries, raspberries or peaches. One cup new milk or cream; one-half teaspoonful corn starch, dissolved in a little cold milk; one tablespoonful of sugar; whites of two eggs, beaten to a stiff froth. Boil three minutes. When quite cold take top crust from pie, pour on the mixture, replace crust, sprinkle with powdered sugar, and set away to cool. Very nice.—*Rural Life.*

HORSERADISH.—The way to grow horseradish is from the little roots four or five inches in length. These will produce good radish fit for use in one season's growth. Plant the root small end down, and so that the top will be two inches under the soil. It can remain in the ground till very late in the autumn, and be pitted, or can remain in the ground until spring. It constantly increases, and there is danger that it will spread too fast and become troublesome.

THE POTATO.—The director of the Agricultural Experiment Station of the State of New York, gives the following as some of the results of the experiments made by him:—"So far as the experience of one year can determine, we feel warranted in asserting that all the data that we possess go to show that the character of the seed used is an important determining factor of the crop gained; that single eyes have yielded better results than whole potatoes used as seed, and that the form of the cutting seems more influential than the size of the cutting."

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TRANSCRIBER NOTES

Misspelled words and printer errors have been corrected. Where multiple spellings occur, majority use has been employed.

Punctuation has been maintained except where obvious printer errors occur.

Some illustrations were moved to facilitate page layout.

A Table of Contents was created with links to the articles for easier use.

[The end of *The Canadian Horticulturist, Volume 6, Issue 6* edited by D. W. (Delos White) Beadle]