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PAINTED FOR VICKS MONTHLY

CHRYSANTHEMUMS

THE

Canadian Horticulturist.

VOL. V.] MAY, 1882. [No. 5.

CHRYSANTHEMUMS.

The colored plate which adorns the present number will make our readers acquainted with three distinct sections of this showy flower—the Japanese, Pompon, and the Chinese. Figures seven and nine indicate the Japanese variety, nine being the large white flower so prominent in the upper part of the group; one and two are yellow and rose-colored Pompons, and the remainder belong to the Chinese section.

In our climate, except in the sections where the autumnal frosts are postponed quite late by the modifying influences of large bodies of water, the Chrysanthemum needs to be brought into the conservatory or cool greenhouse in order to enjoy their bloom. Their season of flowering is late in the autumn, and on that account an almost indispensable plant, making the conservatory gay with its crimson and gold, when there is scarcely any other plant in bloom.

It is of easy culture, growing readily from cuttings, or suckers, or divisions of the roots, yet it has seemed to the writer that the best results are obtained by growing them from cuttings. These may be taken off in the spring, and as soon as they are rooted put into small pots, from which they should be shifted to larger when their growth requires it. A six inch pot is large enough for the last shift, in which they can remain until they have bloomed. They should never be allowed to flag for want of water, but be plentifully supplied all the time they are growing and blooming. Nor do they thrive as well in great heat as when kept in a cool place where they can have plenty of air.

After the young plant has got well established in the small pot and has attained a height of five or six inches, the terminal bud or top of the plant should be pinched off, so as to make the plant throw out branches, and as these branches extend they will also require to be pinched in, so that a bushy and symmetrical form may be secured. By the middle of August this pinching must be relinquished, so that the plant may form its flowering buds in season for its autumnal display.

The soil in which the plants are grown should be well enriched with old and thoroughly rotted manure; that from the cow-stable is usually preferred,

and used in the proportion of one half, the other half being good loam. An addition of finely ground bone, if convenient, will not be amiss, nor would an occasional watering, say once a week, with manure water, be unacceptable to the plants. They will bear liberal treatment, and abundantly repay your care in the profusion and wealth of bloom.

It is not worth while to take the pains necessary to grow them from seed. They are comparatively inexpensive, and can be had of the florists of such colors and forms as may be preferred. Besides, new varieties are being constantly produced, which crowd out the older sorts, and one always wants the newest, even though they may not be any better than their predecessors.

One who has seen a well ordered exhibition of Chrysanthemums, when the hall is filled with well grown plants, each one a mass of bloom, so that the room is ablaze with the gorgeous display; one who has seen such a show does not wonder that the Japanese have their Chrysanthemum festival. In that mild climate and with their gardening skill, these showy flowers are produced in great perfection and in most lavish profusion, so that in their season the whole Island is bright with their beauty. It must be worth a voyage to Japan to have the pleasure of enjoying the floral display which is presented to the lover of flowers in that equable climate, where the Japanese Iris, Japanese Lilies and Japanese Chrysanthemums in acres of beauty delight the eye.

OPINIONS OF MEMBERS.

We are very much pleased with the improved appearance and size of the *Horticulturist*, and the Annual Report is exceedingly interesting and very valuable. HENRY WIGHTMAN.

Marnock.

The *Horticulturist* becomes more interesting every number. Since the introduction of flowers, I find it becomes more so to wife and daughters, and others interested in that line of study.

WM. GILLETT.

Marchmount.

I am glad to see the improvement in the *Horticulturist* this year, and I think the Directors deserve a hearty support for their enterprise in giving the members so much for their money.

H. C. FINCH.

Mecunoma, Muskoka.

I am well satisfied with the *Horticulturist;* every one who cultivates fruit should have it. In it I find a great deal of useful information. The Brighton grape you sent me was received in good condition and grew.

J. B. BURK.

Brougham.

Enclosed I send you my subscription to the Fruit Growers' Association of Ontario. I consider that the best spent dollar I lay out in the year. The *Canadian Horticulturist* has very much improved of late. I take two American agricultural papers, but they do not seem half so practical as your paper. Your list of grapes that would suit Ontario was a timely article, and your plates showing how they should be

trimmed are worth their weight in gold.

R. LEWIS.

Maitland.

I am not surprised to see so many expressing their satisfaction at the improved size and appearance of the *Horticulturist*, and I, in common with all (I hope) of your readers, consider so valuable a book well worth preserving for future reference, and here propose to give some practical instructions of the manner of keeping the year's numbers in compact form. First, if the paper is folded when received, it should be placed against a warm stove pipe, or something warm, and rubbed with the hand till the crease disappears, then it will be in better shape to read and lay away. When all the numbers are received at the end of the year, strip off all the outside covers, placing the illustrations, index and title page in their proper places, and the backs all true, then take stove pipe wire, or any soft wire, make two or three staples about half-inch wide, and long enough to go through the book and clinch; make holes as near the back of the book as possible with a brad-awl to suit the width of staples, which put through and clinch with the handle of the awl, using pressure only; but, of course, cutting away any surplus wire before the clinches are closed down. Now prepare and glue a double fly sheet to each side over the staples, being careful not to put on a strip of glue more than just sufficient to cover the staples. Any strong manilla paper is preferable to white tea or printing paper. Be sure to have the fold on a straight line with the back, as this is to form the inside of the hinge to the back. Cut some card-board just the size for the covers, which glue to the fly sheet, but keeping the edge of the card-board back a quarter of an inch to form a hinge at the back, and press all firmly between two boards in the vice of work-bench. As soon as the glue will hold, cut a strip of binders' cloth, green or buff window holland, the length of the book, and wide enough to cover the back and catch the sides a half-inch or more, which glue fast to the back, bringing over the edges to catch the card-board on each side. Make this tight and smooth, press again and smooth down the back, and press the cloth in to form hinges. While standing for a few minutes select two of the cleanest outsides that had been stripped from the monthly parts, cut the edges true and glue on to the covers of the book, leaving a small strip of the cloth at the back exposed. On my last year's I used the cover that contained the officers for 1882 for back. The month can be erased from the title page with a common ink eraser, or fine emery cloth. After it is dry cut all down true with a sharp chisel, first having the leaves firmly compressed between two boards. The edge of the chisel should be a little rough, and, of course, drawn lengthwise. If all has been done with any taste, you will be proud enough of your book to show it to your neighbour, and likely get him to become a member. In this way I bind my Catalogues, *American Agriculturist*, *Rural New Yorker*, &c., which I find more convenient than to have them lying about my room.

I have invariably found my best bunches of grapes nearest the ground. Last year I trained very low, and found that on our warm, dry soil, grapes ripen more regularly, earlier, and give finer bunches, than if trained against a wall to bake in the sun, as some of mine did last year All this suggests low trellis and low training.

J. P. COCKBURN.

Gravenhurst, Muskoka.

REPORTS ON TREES RECEIVED.

I'm overwhelm'd with grateful feeling,
Until my mind is past concealing;
This saying surely you believe,
"To give is better than receive."
That book itself, with such a store
Of information, is worth more
Than all we give besides the rest—
Trees, plants and horticulturist.
And then the trees have done so well,
Their value I can hardly tell,
Except the golden grimes by name
Was dead and dry before it came.
Then grapes and rasps and seedling glass
My expectation did surpass.
If every person did but know
The gain and pleasure they forego,
They would come all with such a rush
Your institution they would crush,
For it would be in vain to try
So many thousands to supply;
Then just keep quiet, or I fear
You may endanger your career.

WILLIAM BROWN.

With respect to my eight years' experience as amateur fruit grower in the Town and City of St. Thomas, East, Pears for general culture for profit I strongly endorse the (1) Flemish Beauty, (2) Bartlett, (3) Clapp's Favorite, it has blighted some with me. Duchesse as dwarf succeeds well. The Sheldon is a fine flavored pear. The Vicar blighted badly, I had to cut it down. The Clapp's Favorite I received some years since is now a fine tree, has borne sparingly three years. The flavor is exquisite when picked early and ripened in the house. Great care must be taken not to allow them to ripen on the tree, as they rot from the core and lose all flavor. Grapes—I have met with the best success here with Concord and Agawam. I have also fruited the Barry, Merrimac and Salem. The above Rogers Grapes were badly killed on the trellis through the severe frosts of last winter. I also lost many Plums from the same cause. I cannot write well of the Eumelan. I think it a poor, insipid grape. The Burnet is with me a very slow grower, has not fruited yet. The best point I see in it yet is a very pretty leaf. The Downing Gooseberry throve well with me until cut off by frost last winter. I do not think it is to be compared with the Houghton for cultivation, though the Downing berry is larger, I think it lacks the flavor of the Houghton. Lee's Prolific Currants I do not find, after two years' growth, to exceed, if equal, Black Naples. In Crab Apples the Hyslop and Soulard are by far the finest fruiters and growers. The Sen-asqua Grape of last year did not start. The Ontario Apple has done well in growth, but not fruited yet. In shrubs I can especially recommend Hydrangea Grandiflora for hardiness, length of blooming season and beautiful appearance. I am pleased to write that I received Eight First and Second Prizes at the Southern Counties Fair, 1880, for fruit grown by myself (not collected). My stock of knowledge was gained, to a large extent, from yearly reports and monthly papers of *Horticulturist*. I find the Dominion Strawberry a useful variety, the crop coming in when the Wilson is failing. I believe the Sharpless a good acquisition to our list of good croppers. Excuse lengthiness, from yours truly,

HENRY N. READING,
St. Thomas. *Machinist.*

A TIMELY HINT.

A very creditable appearance our little journal makes now. And it is a token for good to see more of our members giving us the benefit of their experience.

"In the multitude of counsellors there is safety."

Some keen observers of cause and effect may be, as wee Scotch bodies say, *a wee bit blate* (don't think the Editor

himself understands that), or they may not be blessed with the pen of the ready writer; but let me assure them our Editor is, *even if he does not understand the Scotch dialect.* Let us have the results of your experiments, your failures and successes; he'll bring them all out in shape becoming his sheet.

JOHN CROIL.

Aultsville.

KIND WORDS.

It is gratifying to observe how very much the *Horticulturist* has improved. The Association is deserving of high credit. No florist or horticulturist should be without it, for it contains a very large amount of valuable information.

THOMAS BRIGGS.

Kingston.

I received the Annual Report for 1881, and am very much pleased with it, and think its outside appearance is much improved.

FRUIT IN THE ALGOMA DISTRICT.

My home is here, on St. Joseph's Island, in the District of Algoma. We expect to have a fine country here for fruit growing. I planted some small fruits last fall, such as grapes, berries, &c.; my neighbors have also planted more or less. We settlers have only been here three or four years, so not much fruit has come into bearing yet; but we have as good land for fruit-raising as there is in Canada—rolling land, mellow soil, slightly mixed with limestone gravel, easily cultivated when rid of stumps. Of course we have a great variety of soil, some good and some inferior. It is my humble opinion that time will bring us to the front as a fruit-raising section.

Yours truly,

STEPHEN CADHAM.

GLADIOLUS BULBLETS.

DEAR SIR,—In your January number, in treating upon Gladiolus culture, you state that the small bulbs which are found adhering to the large bulb should be kept out of the ground one whole season. Please give the reason for this in your next. W.

An old Latin maxim, learned in boyhood, seems to be the best answer to our friend's inquiry: *Experantia docet*—Experience teaches. It has been found by trial to be a fact, that these bulblets do grow much better when kept out of the ground and allowed to dry for one whole season; but why this should be, what reason is to be assigned for this fact, is probably not known. It is very natural to ask the reason why, and the inquisitiveness that prompts the question, and will not be satisfied until it is answered, has led to the discovery of most important natural laws, which have been as keys to unlock vast treasures of knowledge. Will "W." please undertake the solution of his own question; it may open up the way to results of great practical value.

EVAPORATION OF FRUIT.

BY J. M. H'AINSH, NISSOURI, ONT.

The question of evaporating fruit, especially apples, is now pressing itself very forcibly upon the attention of fruit growers. In by-gone years, while good fruit was scarce, even summer and fall apples could be readily sold at remunerative prices. But now, while good winter apples find a ready sale to ship to distant markets, summer and fall apples are a drug. In this locality it is not uncommon for parties to sell good summer and fall apples at twenty cents a bag, and peddle them from house to house at that. The old process of drying them on strings is a very slow and imperfect one, but by

the improved process of evaporation a really good article can be made either for home use or for sale.

As we well know that the Editor of the *Horticulturist* keeps himself informed on all points relating to the fruit growers' interest, I hope he will give some information about how to get a fruit drying apparatus. Could any good tinsmith make one, or are they manufactured anywhere in Canada? Information on these queries would probably be acceptable to others as well as myself.

REPLY.

An evaporator was exhibited at the Toronto Industrial Exhibition in September last, which is said to have received the First Prize and Diploma, and is known as the Pacific Fire-Proof Fruit and Vegetable Evaporator. Mr. William Schram, of Waterford, Norfolk County, Ontario, has one of these, we are told, and that he says that after testing it and comparing its capacity with other evaporators, and taking into consideration the saving of fuel and insurance, he considers it the cheapest, safest and most satisfactory in the market. He dried eighty bushels of apples in ten hours, producing four hundred and eighty pounds of dried fruit. We believe that Mr. Abraham Ryckman, of Mill Grove, in Wentworth County, Ontario, also has one.

There is also a smaller evaporator, known as the Household Fruit and Vegetable Evaporator, which is designed for household purposes, for evaporating and preserving fruits, vegetables, &c. This is perhaps what our correspondent wants. It is claimed for it that it can be used on any cook stove. Messrs. J. A. and H. Bartholomew, Vanessa, Norfolk County, Ontario are the manufacturers We do not know of any other evaporator that is made in Canada.

TREE PLANTING.

BY MR. WALLBRIDGE, BELLEVILLE.

Almost every one does, or ought to, set out some trees every year. The fall of the year is generally recommended as the best time; it may be, however, well done in the spring. As this communication is intended for bee-keepers, it is well to consider what kind of trees to plant.

Basswood is certainly king, coming into blossom generally just as White Clover goes out, it fills an important place in the bee-keeper's profits. If the Bee-keeper fails to do well when the Basswood is in bloom he may count upon a poor return for that year. The Linden and Lime are other names in England for another variety of the same tree. Its honey-producing quality is its great recommendation to the bee-keeper—but to others it has advantages. For beauty, there is no tree that has so large and deep-colored a leaf, and when it attains its growth it is valuable for timber. It is used for door-pannelling and in many parts of carriages and sleighs, and its timber always commands a good price. It is thus useful during its growth, and at its maturity brings a nice sum of money for the purposes indicated. Compare it with the Maple tree, so generally planted—what is that worth, either during its growth or at maturity, except for firewood. The Basswood has a luxuriant Southern foliage, and for beauty at least is equal to the Maple. Another tree of great value to the bee-keeper is the Honey Locust. This tree comes in bloom quite early, and is valuable on this account. The bees visit it almost in swarms, and the honey and pollen then brought in gets up the excitement in the hive, and breeding goes on at a rapid pace. Now this is the very thing bee-keepers want. They want strong stocks, ready to gather honey when White Clover comes

in, and I know of no tree or plant which does so much to strengthen the stock early as this Locust tree. Have your stock strong early; this is the secret of bee-keeping. Almost any stock will become strong in the White Clover season; but then the clover honey is used up in breeding, and you don't get it as surplus. If you have no Locust trees in your neighborhood, you should feed your bees, or abrade combs filled with honey already in the hive, changing combs to the centre of the brood nest, thus spreading the brood nest and giving the queen an opportunity of laying, which she will be sure to do if you give her a fair chance.

Mr. W. C. Wells, of Phillipston, the largest bee-keeper in this part of the country, attributes the good success of city bee-keepers to the Locust trees, as, by the good start from them, we get early brood, and are thus ready with strong stocks for the Clover and Basswood bloom. Besides the timber of the Locust tree is very valuable; it is exceedingly heavy, a cubic foot of it weighs about 100 pounds. It is valuable for waggon hubs, cogs for mill wheels, and other things requiring great strength; if used for gate posts it is exceedingly durable. Messrs. George Leslie & Son, of Leslieville, Ont., furnish, amongst other valuable trees, the Locust tree, of different varieties. They are all valuable, both for honey and timber. It certainly is the wiser to plant a tree which, on attaining maturity, is valuable as timber, than to plant one which, in the end, is not even valuable as a fence post, and only valuable as firewood.

I am indebted to the *Canadian Horticulturist* for valuable suggestions on tree planting. The article appears in the February number, and is by Mr. N. Robertson, Government Grounds, Ottawa. It is too long to copy into this communication, but a few points may not be amiss. "Take the trees up so as to destroy as few of the roots as possible; cut the tops into what is called poles, eight or ten feet long, have a good root, a stem without blemish, and thus a rapid growing tree. Do not take a scraggy, stunted tree; and do not mind having the tree to stand as it did before removed, but place the side having most roots on the side where the wind will be strongest. Let the hole in which you plant be much larger than the roots, and draw the roots out to their full length. Before you put in the soil, do not let the roots get dry, but give them a heavy mulch of sawdust, manure or straw. This can be kept in place by a few spadesfull of earth, and pass the mulch a foot on the hole where the roots are.

THE BEST TIME TO PRUNE FRUIT TREES.

BY J. M. M'AINSH, NISSOURI, ONT.

The correct principles which underlie the pruning of fruit trees are probably as imperfectly understood as any other point in fruit-growing. Most people prune in the spring, some through the winter, others in the summer. Now, after carefully observing the effects of pruning done at different seasons, I have come to the conclusion that the best time to prune is in early summer, after the first rush of sap is past, and before the trees have made much growth of new wood.

When trees are pruned in winter, a considerable time must elapse before the wounds made begin to heal over. During this time the combined action of the frost and sun are injurious to the newly-cut and exposed wood and bark, and it will take a longer time to heal over than if the wound was made at the time when the tree was beginning to make new growth.

When trees are pruned in early spring, the sap is then in a thin watery state; it oozes out of the cut, causing premature decay and permanent injury to the tree.

When trees are pruned in early summer, after the rush of thin watery sap is past and the tree has fairly commenced to make a new growth, the wounds will commence at once to heal over. The exposed wood will remain sound for a longer period than if cut in early spring.

Another very important point in early summer pruning is, it does not check the growth of the tree, as when it is done later in the season.

Some advocate pruning in July and August, but I would only prune then in cases where the tree was making too much wood growth, which I wanted to check and throw the tree into a bearing state.

Another very important point in pruning, and yet one which is very much neglected, is to cover the cuts with some substance to protect them from the influence of the weather. Common grafting wax, or a mixture of clay and cow manure, is beneficial; but perhaps the best thing, when it can be got pure and good, is gum shellac dissolved in alcohol to the consistence of paint. A protection of this kind is always beneficial to newly-pruned trees; it neutralizes to a great extent the injurious effects arising from pruning trees at an improper season.

WASH FOR FRUIT TREES.—Keep the trunks and larger limbs of all fruit trees clean and healthy by a wash composed of one part sulphur fine as a powder, two parts soft soap, one part salt, all reduced by water to the consistency of whitewash, and to every bucket or three gallons, add a half pint of coal oil. The latter is considered to be an effectual remedy against the borer, curculio, and a preventive for all insects. Apply with a whitewash brush or mop of rags or sheepskins.

PRUNING.

ITS NATURE AND ITS EFFECT.

The practice of pruning is defined by Webster to be, "To lop or cut off the superfluous branches of trees, to make them bear better fruit or grow higher or to give them a more handsome and regular appearance." The implements used in this work may be of several kinds, to suit the convenience of the operator, as knife or axe or saw or chisel, but all with a view to the same ultimate results. "This," as Shakespeare said of horticulture generally, "is an art that does mend nature." In practice it requires skill and much observation, but the results are usually marked and very positive, sometimes so much as to change the entire future life of the plants. By means of this we have the power not only to mould and form the plant and direct it how it shall grow to serve our purposes, but to regulate the amount and quality of the fruit. By the judicious exercise of this art the tree is made to be our servant, to please and to bless us. Pruning is mainly of two kinds, viz., root pruning and branch pruning, with respect to parts; or winter and summer pruning, with respect to time. It is, however, quite evident that the great burden of pruning, both as to root and branch, must be done in a time quite free from frost. To prune in the winter for wood, and in the summer for fruit, is an old saying that has gained currency, and generally there is much practical truth in it. According to the division of our subject we have first,

ROOT PRUNING.

This mode of pruning consists theoretically in contracting or circumscribing the area of root growth in the soil. The philosophy of the operation is, that whatever threatens to endanger the *life of the plant* will promote fruitfulness. Practically, this is done in

two ways, but the resulting effects of both ways are the same. First, by digging to a certain depth around the tree and at a certain diameter, having the tree for the centre. The practical effect of this is to cut off the fine fibrous or feeding roots and deprive the tree of a very large part of its accustomed nourishment, and this threatens to endanger its life and the result will be fruitfulness. Second, by taking the tree up and removing it to another place the result will be the same. The only material difficulty with these operations is that they must, in many cases, be repeated; yet in many cases, the habit of fruitfulness being commenced, it may in all probability continue. These kinds of pruning, however, are seldom resorted to except in extreme cases, and then only for once or twice. But we are to notice, secondly,

BRANCH PRUNING.

This is by far the most common method of pruning. Theoretically, it consists in lopping off many of the buds and some of the branches, in order to throw greater force of vegetable life into those that are left, and the implements used are those that have already been mentioned. The operation rests upon the philosophy that each tree is furnished with a certain amount of life force to be distributed over its entire surface, and the less the surface the greater the manifestation, and *vice versa*. I think, however, the true philosophy undoubtedly is that the extended leaf surface of the tree during the previous year, has enabled it to store up within itself a very large amount of life force, or food if you please, and that by contracting the demands by means of pruning, the exhibitions are more demonstrative. However this may be, it is most certain that pruning has this effect upon the plant. Branch pruning may result differently, according as it is done when the leaves are on or when they are off, or, in other words, in summer or winter, as the one is said to be used for increased fruitfulness and the other for increased wood growth.

SUMMER PRUNING

consists in going over the trees or the vines (this is very much used in grape vines), and with the thumb and forefinger pinching out the tip of the young growth. This pruning is sometimes called "pinching," from this circumstance. By this means, trees may be modelled and the growth directed in a most surprising manner. Pruning in winter is much more laborious and complicated, as we have to do with matured buds and branches. It consists in cutting off or out such buds or branches as are deemed unnecessary. For this kind of pruning, it is a good and very safe rule to examine the trees annually and properly direct the growth, so that we may never have to cut out very large branches at any one time. The disastrous effect on the tree is thus reduced to a minimum, and is not so marked as by cutting off large heavy branches at once. The *minutiæ* of the business must be learned by practice, under the direction of a good master.

THE OBJECT

of pruning may be said to be twofold: 1st, To regulate or balance the growth; that is by checking luxuriant branches and encouraging weak ones to push forward, and also by encouraging the growth on the sides of the tree that are deficient. 2nd. To form and mature fruit spurs and buds; that is, by checking luxurious wood growth and directing the energies of the tree or vine to the formation of fruit spurs and fruit buds to be developed in other seasons. But the objects of pruning may be, 1st, To change the size and outward form of the tree or vine. To cut into less prescribed limits will have the effect to

render more dense and to sensibly alter the shape. By this means trees and vines can be totally changed from their natural habits, and towering trees be made low and open, spreading trees dense, and the regardless clambering vine be made obedient and domestic. 2nd. To render more enduring of severity in cold climates: This is done only in the summer, and the effect is to more perfectly ripen the wood growth, and render it hard and enduring against severe cold. By this means less hardy trees can be brought through successfully and safely. 3rd. To change the bearing year: This pruning must be very severe, and done only in the summer time. By taking off all the prospective fruit and severely pruning or checking the wood growth, the bearing year may be changed to suit our convenience or profit. 4th. To render fruitful: This is best done in the summer, and is performed, as previously described, by diverting the energies of the tree to the formation of fruit spurs and fruit buds. Root pruning is chiefly used for producing this much-desired object. But 5th, and lastly, the object may be to develop and perfect higher standards of fruit. The philosophy of this proposition is very easily shown, for, granting the tree to have a certain amount of energy to develop samples of fruit, the less the samples the higher the development. This is demonstrated in practice. The results are, increased size, or increased beauty of appearance, or increased flavor, or each and all of these; the prices also are better and the rewards greater.

We have very hurriedly and very imperfectly gone over the most important points connected with the art and practice of pruning. Our object is that it may in some slight degree further the interest of our Canadian Horticulture, a great national interest that we are so intensely concerned about. We are most heartily glad of the gigantic strides already made in this benevolent art whose object is to beautify and adorn, to elevate and enrich.

B. GOTT,

Arkona Nurseries, Jan. 2nd, 1882.

ROTTING OF TOMATOES.

I have been interested in the correspondence on the rotting of Tomatoes. The extract from the *Gardeners' Chronicle* given in your December number, if carefully looked at, will be found to be no answer to the enquiry made. It is established that as soon as the vitality of organized matter is affected, decay sets in and fungoid growth finds its habitat there. It has been my ambition to be early in Tomatoes, and I have found much disappointment in finding the young fruit withering and spoiled by spotting, with all the appearance of what is called "sun-scalds," though, as the writer asserts, they cannot be that, as the crown of the fruit hangs downwards; nevertheless I opine that the sun has a great deal to do with the spotting, and that the stunted fruit is caused by the drying up of the plant from a want of moisture. Last season, as usual, my vines, while pushing well, and ahead of my fellow-amateur friends, made no sensible progress, as fruit after fruit spotted, dwindled and died; but adjoining my cucumber-frame, which I kept well watered, I noticed that those Tomatoe plants which came in for a share from the garden-hose were entirely free from any blemish, and the plants, moreover, looked healthier. Taking a hint thereby, I regularly watered the lot, and was troubled no more with spotty Tomatoes, the fruit large and handsome and in great abundance.

Having had only one season for experimenting, I do not assert that water

is a cure for spottiness, but the results in my case are somewhat suggestive.

Has anybody else anything to say on the matter which will give light and be of practical service in growing tomatoes.

RICHARD BAIGENT.

THE JEFFERSON GRAPE.

Charles Downing says:—This new, handsome and excellent grape is a cross of the Concord and Iona; it is healthy, very vigorous; wood rather short-jointed; leaves large, thick and downy; very productive; bunch large, shouldered, often double shouldered; compact, berry medium to large, roundish oval; skin rather thick, light red, with a thin, lilac bloom; flesh melting, yet tender, juicy, sweet, slightly vinous, aromatic and rich; the berries adhere strongly to the pannicle, and the fruit maintains its freshness for a long time after being gathered. It is of fine quality, and very promising either for market or home use. It ripens about the time of Concord.

J. J. H. Gregory says:—A rare good grape, the Jefferson. Among the score or more of new grapes before the public, this seedling of Mr. Ricketts stands out so exceptionally good that I have purchased several for my own grounds, and can recommend it to my patrons.

The judges at the Lynchburg, Va., Agricultural Fair in 1880, say:—The Jefferson was one of the very best on exhibition, and for fine eating qualities could not be excelled.

The Editor of the *American Wine and Grape Grower* says:—The Jefferson is one of our best red grapes for table, fully equal to Iona, and more vigorous and very productive, often giving bunches weighing one pound or more.

THE CRESCENT SEEDLING STRAWBERRY.

This is beyond question a wonderful strawberry; its productiveness is astonishing. In size it is medium to large; in color, brilliant scarlet, and does not get dull when in market; in quality, rich, having the peculiar wild flavor. The fruit colors on all sides at once, so that all red berries may be gathered, a quality appreciated by market growers; all berries perfect in form and merchantable. It bears immense crops even in weeds and grass. It is *the* "iron clad" of the new sorts.

The above is what A. M. Purdy says of this new strawberry, and he has *every opportunity for forming a correct* opinion.

A correspondent of the *Fruit Recorder*, who resides at Burlington, in the State of Vermont, says of it:

"I fruited some Crescents this year, they are simply immense. Although I had many kinds, none equalled the Crescent. I let them all run together on very rich, moist land (a loam), and they produced more large berries than I ever saw on the same amount of land. I did not get any of the very large berries that some of my neighbors did from the Sharpless. I do not care for a few very large berries, but my Crescents were all large; I might almost say very large—except for some of those rare specimens that are now being produced, they were certainly as large as are required for the table or market, and the quantity was astonishing, and *the quality very fine.*"

J. A. Benedict, in *Chautauqua Farmer*, says:

"In regard to strawberries, I find the Crescent Seedling ahead of anything I have ever grown. Its yield is from a quarter to a third better than the Wilson. Have the Sharpless, but shall

discard it, although its quality is very fine. Find that reports from berries in Michigan give the Crescent Seedling as the equal of the Wilson. The Crescent Seedling when properly picked and packaged can be shipped anywhere. In yield it is superior, and in size it is equal to any. The red raspberry is the one that takes the lead with me."

ENGLISH SPARROWS.

A premium of 6d. per dozen has been placed upon sparrows' heads by the Government of South Australia, acting on the advice of a Commission specially appointed to enquire into the "sparrow question," while the somewhat disproportionate sum of 2s. 6d. per hundred is offered for the tiny pale blue eggs of the bird. The bird, which only a few years ago such efforts were made to acclimatize in Australia, and whose first arrival was hailed with greater enthusiasm than would now be displayed on the landing of a Bend Or, a Duchess, or a prize merino, is now doomed to extermination if that can possibly be achieved. So rapidly have the few pairs which were introduced a few years ago multiplied under the congenial skies and amid the luxuriant vegetation of the Australian Colonies, where there are few or none of the checks on their increase which exist in the Old Country, that the agriculturists complain of the serious injury done by them to their wheat and fruit crops, and have called upon the Government to devise some means of insuring their destruction. The evidence given before the Commission appointed to inquire into the matter affords eloquent examples of the destructiveness of these hard-billed birds. One witness says that in the short space of ten days the sparrows took a ton and a half of grapes; they stripped all the figs off five trees, and kept low 15 acres of lucerne during summer. Another complains that in the season they took £30 worth of fruit; while a third declares that he sowed peas three times, and each time they were destroyed by sparrows. The fecundity of the sparrow in South Australia is described as astonishing. A few to-day are thousands next season. Its work is done on a scale disheartening to the cultivator, and under conditions he cannot control, for the seed is taken out of the ground, the fruit-bud off the tree, the sprouting vegetable as fast as it grows, and the fruit before it is ripe, and therefore before it can be housed and saved. Neither apricots, cherries, figs, apples, grapes, peaches, plums, pears, nectarines, loquats, olives, wheat, barley, peas, cabbages, cauliflowers, nor seeds nor fruit of any kind are spared by its omnivorous bill; and all means of defence tried against its depredations, whether scarecrows, traps, netting, shooting, or poisoning, are declared to be insufficient to cope with the enemy.

ORANGE CROP OF CALIFORNIA.

The *Press and Horticulturist*, of California, has the following on the coming orange crop in that State: "So far as this State is concerned, the crop will be about as large as last year. The San Gabriel Valley will produce but 35,000 boxes, in place of 60,000 boxes last year, and there will be a similar falling in the old orchards of Los Angelos; but the new orchards of Passadena, Orange, Tustin City, Anaheim and Riverside, will nearly or quite make up the loss of the older orchards. The crop this year will be of a much better quality than last. In 1880–81 the orchards were overloaded, and much of the fruit was consequently inferior. This year the old orchards have a light crop, and therefore the fruit is of a better quality. Again the increase of the crop this year

is in localities where the scale and black fungus have not done so much damage as in the older orchards. A much larger proportion of the fruit will this year come from young trees than it did last year."

NATIVE FRUITS.

A Paper read before the Western New York Horticultural Society at Rochester, January 25th, 1882, by W. C. Barry, Sec. Native Fruit Committee.

APPLES.

The list of valuable apples is now so large that few attempts are made to acquire anything better. Chance seedlings of apparent merit are frequently brought to notice, but when placed beside the older sorts and compared carefully, few are found worthy of introduction. We have several seedlings grafted upon bearing trees, and hoped to obtain fruit of them the past summer, but did not; hence we must defer mention of them till the next annual report. At the West strenuous efforts are being made to obtain sorts which will endure extreme cold. The Russian as well as other hardy sorts are being carefully tested, and ere long we may expect some important developments relative to this class of fruit. The introduction of the *Wealthy* is an important step in that direction. Hardiness and fine quality are combined in this variety, and the new apple has come to be regarded as an acquisition of much value. The *Whitney Crab* fruited with us for the first time the past season, and as regards its quality was an agreeable surprise. The fruit is of medium size, large for a Crab, flesh fine, melting, juicy, and pleasant flavored. It matures in August.

Occident, the new California apple, resembling Yellow Bellflower, and referred to in former reports, is now being disseminated, and we hope it may succeed so well as to merit a permanent position on the select lists.

Sutton Beauty continues to grow in favor, and should it succeed as well generally as it has in New York and Massachusetts, it may with all justice be accorded a high position among our best apples.

Stump, frequently mentioned in the reports of this society, is a beautiful and valuable table apple. It has been on trial long enough to enable us to award it a place among the most desirable fruits.

Magog Red Streak is a hardy variety, of which Dr. Hoskins says: "If it were not for the Wealthy, this would stand at the head of our winter apples;" and of

Scott's Winter, another variety, he adds: "This is the apple which well replaces for us the Roxbury Russet of a milder clime."

In our anxiety for novelties, we frequently place too low an estimate upon the older fruits, and the committee feels that a brief reference occasionally to some of these sorts will not be out of place. Some fruits require peculiar care and culture to develop their best qualities, and when a variety of acknowledged merit fails to succeed with us, we should endeavor to find out the cause, and if possible apply a remedy. Soil and climate often exert such a powerful influence over the fruit, that particular sorts cannot be grown in certain localities, even with the best of care. But several sorts fail from utter neglect, or from a lack of the requisite care which such sorts demand. The *Fameuse* apple, than which there is no finer dessert fruit, is very small and scabby in some localities, and in others remarkably fine. During the past summer Mr. J. J. Thomas, chairman of our committee, compared specimens of the new *Kieffer* pear which were grown in Rochester with those from New Jersey, and found the former too

poor to eat, while the latter were of fine quality. Mr. Thomas also cites the case of the *Winter Nelis* pear, which in this vicinity is unquestionably our most valuable winter pear, and in Westchester county it is said to be hardly worth cultivating. Mr. Thomas therefore suggests that it is worth while to try and find out the influences which produce these great differences. The causes of failure of such valuable fruits as the Winter Nelis pear and Fameuse apple are worth looking into. Intelligent cultivators, such as assemble at our meetings, should give the results of their experience on these points; and if they are aware of any peculiar methods of culture for certain fruits they would do the public a great service by making them known. I am pleased to note that the valuable qualities of the *Fameuse* are becoming appreciated. When in New York a short time ago, I noticed an abundance of fruit upon the stands, and dealers now advertise it as the delicious Snow Apple.

The *Jonathan* is another white-fleshed apple which is destined to rank high as a table fruit. It ripens immediately after the Fameuse, and is very desirable to succeed it.

Ladies' Sweet is one of those delicate-fleshed apples which deserve the highest esteem. Its flesh is white, tender, rich, and being entirely free from acidity it is easily digested, and as an article of food for dyspeptics would be highly prized if better known.

The *Mother* is a choice winter apple of fine quality, which deserves a higher place than is usually awarded it.

The *Northern Spy* has valuable qualifications as a dessert fruit, which do not seem to be fully appreciated. Succeeding the Jonathan, it is in prime condition for eating in mid-winter, and in point of delicacy and delicious flavor is hardly equalled. Too much praise cannot be bestowed upon this noble fruit. I trust the time is not far distant when consumers will readily pay three times the price for it that they do for Baldwin and the like.

Jefferis, from Pennsylvania, is worthy of attention. It is of medium size, skin yellow, splashed with crimson; flesh white, tender, juicy and mild sub-acid. It ripens in September, and is a variety which will always rank high on account of its admirable qualities.

PEARS.

It requires so much time to determine the value of a new fruit, that although several novelties have been on trial for some time, it is not possible yet to give much accurate information concerning their importance for general cultivation. In the localities where they originated they may be very desirable, but when tried elsewhere they are often found to be of little value. At the present time the most prominent aspirants for public favor are *Hoosic*, *Frederick Clapp* and *Kieffer's Hybrid*. The two first are unquestionably of the highest quality, and bid fair to prove acquisitions. The last named has acquired considerable popularity in New Jersey as a market sort. We had fruit of it from our own tree the past summer, and found it too poor to eat. Mr. Thomas compared our specimens with some from New Jersey, and found the latter of good quality. The tree is remarkably vigorous, and has handsome glossy foliage, which readily distinguishes it from all other sorts.

P. Barry, Fox's Seedling, is a remarkable new variety, and particularly valuable, as it extends the season of fine pears into April. The flesh is very juicy, buttery, fine grained, sprightly and rich. It resembles Buerre d'Anjou in texture of flesh, and Winter Nelis in color of skin and juiciness. Its keep-

ing qualities are really wonderful. Unlike other late winter pears, the flesh retains its freshness, delicacy and juiciness even under unfavorable circumstances, and in April it is just as agreeable to the palate as a fine Winter Nelis in December or January. Now that the *Beurre Easter* can not be ripened successfully, this variety will supplant it.

The Secretary suggests that cultivators should give *Clapp's Favorite* more attention than they have hitherto done. This splendid pear, one of the handsomest of American fruits, is rarely seen, and from all we can learn has never been tested as it ought to have been.

CHERRIES.

The *Windsor*, a new cherry originated with James Dougall, Windsor, Ont., is very promising. It is black, or liver-colored, flesh very firm and of fine quality. It ripens a few days after Tradescant's. On account of its lateness and firmness it will undoubtedly be found valuable. We have fruited it upon our grounds several seasons, and esteem it highly. Mr. Dougall says: "The Windsor is enormously productive, very hardy, being the only Bigarreau or Heart cherry, the fruit buds of which were not winter killed last winter on my grounds: even Dukes were killed."

PLUMS.

The *Wild Goose* is a pleasant flavored early plum, and is justly entitled to a place among worthy fruits. *Miner*, similar in character, ripens late in September, when plums are scarce, but in quality it is not equal to Wild Goose, nevertheless it may have value.

PEACHES.

This is a subject which still possesses more than ordinary interest. The large number of new sorts introduced within the last ten years has drawn peculiar attention to this fruit. Special interest is taken in the very early sorts, which are now so numerous and so similar as to render it difficult to determine which to keep and which to reject. We have many of the early sorts growing side by side, and though we watched them closely from day to day we have often been puzzled to determine the values of each. It would be tedious to give the results of these tests in detail, so we will at once state the conclusions we reached after careful examinations:

Alexander or *Amsden* are not surpassed in size or earliness; Alexander averages larger, but Amsden is better flavored. *Waterloo* is higher flavored than either. It may not be any earlier, but its fine quality will render it valuable. *Early Canada* is a close competitor in this class. It ripens with Alexander, is not so large, but very handsome, and may part from the stone a little more freely. *Brigg's Red May* is not so large as Alexander, and three or four days later. *Governor Garland*, we are informed, ripens several days after Alexander and Amsden.

The lengthy list of new sorts is becoming gradually reduced, and though the results prove that much labor has been in vain, we have the satisfaction of knowing that the claimants have had a fair trial. We earnestly hope that future introductions may possess qualifications not yet realized. We want early sorts that are free at the stone, and that are less liable to decay than those now known. The following are the latest introductions:

Galand June, *May Beauty* and *Williams' Early Freestone*, said to be two weeks later than *Amsden*, and of better quality.

The following well-known varieties ripen nearly at the same time, but when compared and tested, they show a marked difference in quality.

Conkling is superior to all in flavor. *Foster* comes next, then *Surpasse Melocoton*, *Crawford's Early* and *Richmond* ranking in quality in the order named.

Ward's Late Free is the most delicious late peach in this district.

GRAPES.

Grapes are receiving marked attention from cultivators at the present time. Particular interest is manifested in the new sorts, and all growers are waiting anxiously for the experience of those who have the novelties on trial. We regret that it is not in our power to offer any information about them. It will probably require two or three years more to determine their value. I had the pleasure of testing a new grape which is remarkable for its fine flavor, equalling, if not surpassing, in this respect any variety I know of. The grape I refer to is the *Amber Queen*, raised in Massachusetts. It is of medium size, purple when perfectly ripe, and has a rich, sprightly flavor which is remarkable. The vines which produced the fruit being young, it was not possible to judge fairly of the habit of the plant, or size of cluster. This variety may be regarded as promising.

Burnet, a hybrid between Hartford Prolific and Black Hamburg, and raised by Mr. Dempsey in Canada, deserves notice on account of its fine quality.

Early Victor, a black grape originated by John Burr, of Leavenworth, Kansas, the same gentleman who originated Burr's Seedling Strawberry, is said to be the earliest variety known, and is expected to displace Champion and Hartford Prolific. Reliable grape culturists give us this assurance, so we may look toward this grape with considerable interest. The *Secretary* Grape, one of Mr. Rickett's seedlings, referred to in a former report by the writer of this as a grape of poor quality, produced some fine flavored fruit the past summer. It ripens very unevenly, however, and the vine is such a poor grower that it cannot become popular. *Highland*, another of Mr. Rickett's grapes, appears to be very late.

Lady Washington we did not see under favorable circumstances, and cannot speak of it intelligently.

Miner's Seedlings fruited with us for the first time, and were quite a disappointment. They all partake of the character of Concord, and are said to have been selected from 1,500 seedlings. One trial is not sufficient to estimate their value, but I fear they are not destined to become popular. The seven white varieties bear a strong resemblance to each other, though of course there are points of difference. *Victoria* is the best. There are two Black ones, *Linden* and *Rockingham*, neither of which show any points of excellence. All resemble Concord in habit of growth and productiveness, and some of the white varieties would have been considered acquisitions had they been disseminated a few years ago before the new White Grapes we now have in the Market.

Lady Charlotte, one of Pringle's hybrid grapes, gives promise of excellence. It is remarkable for its fine flavor. *Vermont Giant*, another of his hybrids, is to all appearances of no value. It is black, very pulpy, and the flavor poor.

I should not fail to refer to three varieties of Rogers' Grapes, the importance of which has been overlooked. They are *Lindley*, *Herbert* and *Gaertner*. *Herbert* is a magnificent black grape, superior in quality to *Wilder* or *Barry*, and the bunch is nearly as large. *Gaertner* is a very large red grape, and so attractive that when exhibited in a collection it is the first to receive notice. *Lindley* we have spoken of

before. It is one of the best red grapes, and deserves to be so regarded. It is singular that these varieties have not attained the distinction which they merit. It shows plainly that we are liable to overlook some important fruits.

Rockland Favorite from Massachusetts resembles the Concord, but does not surpass it in any respect so far as we can see. The *White Ann Arbor*, raised from seed of the Concord, is represented to be of much value. The bunch and berry are described as being large fruit of first quality, and the vine vigorous and free from mildew. *Feemster Favorite* from Indiana is said to excel the Concord in hardiness, and if so, is probably of some value at the west. The bunch is said to be of medium to large size; berry large, green in the shade, and in the sun slightly shaded with salmon.

Wyoming Red or Wilmington Red, which originated on the Hudson, being described as a variety which was likely to supersede the Delaware, was watched closely. We may have a spurious sort, for the plant which we have under the name produced a dark red or purple grape; very pulpy, foxy and of inferior quality.

Mr. A. M. Smith, of St. Catharines, writes that several promising seedlings have been raised and are on trial in Canada.

One, an improved Delaware, raised by C. H. Biggar, Drummondville. Another being a fine White Grape, seedling of the Concord, and better flavored.

Our own seedlings, the *Rochester* and *Monroe*, continue to be very satisfactory. Last season when many grapes failed to set their fruit well, owing to unfavorable weather at the blossoming time, these proved remarkable exceptions and produced such an amount of fruit that we took off fully one-half from the vines when in a green state. The *Rochester*, with its large, shouldered, compact clusters, is a remarkably handsome grape; and the bunches are borne in such abundance that they are very showy and attractive. The vine is vigorous and the foliage very healthy. It has some defects, but where is the grape that has not? The *Rochester* is not destined to be spread broadcast, for it cannot be propagated except with some difficulty. *Monroe* is very early, pleasant flavored, vine very vigorous, hardy, prolific, and the foliage is healthy.

RASPBERRIES.

Public attention seems to be concentrated in the *Cuthbert*. I have not seen enough of it to form an opinion. It is evidently the best flavored of the so-called hardy sorts, and as such is calculated to displace a number of varieties which have been valued for hardiness and shipping qualities. In 1877 I fruited side by side nearly all the raspberries then known, new and old. *Clarke and Brinckle's Orange* seemed to be the cream of the collection, so far as the quality of the fruit was concerned. I have fruited the assortment since, and have not changed my opinion. Objections are raised occasionally to the Clarke, but for the amateur I think it is unequalled. *Turner* is one of the hardiest sorts, and withal of good flavor. *Caroline*, the new yellow Cap, is hardy and very productive, but its quality, we must admit, does not equal our expectations. We were promised a luscious fruit, but with us it proved to be only of fair quality.

Niagara is the name of a raspberry originated and introduced by A. M. Smith, of St. Catharines, Ont. It is said to be a cross between the Clarke and Philadelphia, and superior to either as a market fruit. Berry large, dark red, shape of Clarke, but firmer and

more productive, and fully a week later.

The *Superb*, which originated in New Jersey, was sent out for the first time last autumn. It is described as large, handsome, bright crimson, and having a sprightly sub-acid flavor.

Shaffer's Colossal is a new Cap berry, which originated with George Shaffer, in the town of Wheatland, Monroe county, N. Y., in 1869, and is now being disseminated by Mr. Charles A. Green, of Clifton, N. Y. It is said to be the largest raspberry in the world, and the most vigorous in growth of cane, and exceedingly productive.

Mr. Green is also sending out *Lost Rubies*, a red raspberry, described as large, bright red, with considerable bloom, firm and of fine flavor. The plant is said to be very hardy.

Souhegan, a new Black Cap, is described as being early and of fine quality. Well known authorities give it the highest commendation. *Hopkins* is another which originated at the West, and is said to be hardier than the Gregg. *Centennial Black*, from the West, is still another which Mr. E. P. Roe recommends highly.

The Black Cap family has been considerably augmented by these accessions, and it will be interesting to compare them.

STRAWBERRIES.

The list of new strawberries is being constantly enlarged, so that our interest in this fruit is not allowed to flag in the least. The *Bidwell* leads the newcomers, and is introduced to notice with the most flattering recommendations On the Hudson it has done admirably, and from all accounts possesses so many valuable characteristics that we may reasonably expect a great deal from it. The *Manchester*, which originated in New Jersey, follows, fairly loaded down with commendations from prominent fruit growers. *Jersey Queen*, one of Mr. I rand's seedlings, is also regarded as promising. Mr. Green mentions the *Moonstone* as a variety which ripens late in the season. *New Dominion*, raised by J. H. Biggar, of Drummondville, Canada, is said to resemble Cumberland Triumph. Mr. Beadle says it possesses all the good qualities of that variety, and is at the same time more productive, of somewhat firmer flesh and better flavor. The fruit which we tested the past season was not as good as Cumberland Triumph. *Early Canada* was originated by A. M. Smith, of St Catharines, and is said to resemble Wilson strongly, but it ripens a week earlier.

We tested fifteen or eighteen new sorts last summer, but were not favorably impressed with any of them. Possibly another season's trial will enable us to form a better opinion of them.

I compared *Glendale* carefully with *Kentucky*, and came to the conclusion that the latter was the more valuable.

CURRANTS.

Fay's Prolific is now in the market, and we hope to give it a trial soon. Mr. Smith says *Lee's Prolific* does not show any points of superiority over the *Black Naples*.

We have endeavored in this report to refer to all the most prominent novelties now under cultivation. You will, I am sure, agree with me that we are making progress; and if the same interest and energy be evinced in the future as in the past, we may look for great advances in fruit culture. By hybridization and crossing the most wonderful results may be accomplished. There is in fact no limit to the novelties we may produce. But let our efforts be directed in such a way as to produce the most useful results.

FARMERS THAT DISLIKE FRUIT GROWING.

The Chicago *Herald* thus speaks to those farmers who neglect fruit planting:

"While all parts of our country are adapted to the cultivation of excellent fruits of various sorts, and while all locations will produce a fair variety, it is a singular fact that many farmers never undertake to produce even the very moderate amount which would be used by their own families. The writer of this went to his farm some ten years ago. About the first serious work that engaged his attention was the planting of fruit, of the sorts that would bring a return—as currants, gooseberries, raspberries, strawberries and apples—of the latter several hardy standard sorts, as well as several varieties of crabs. It really seems now that it was but a very short time until we not only had a large supply for our own use, but a surplus began to come along, which in our own section commanded a ready sale and good prices. Our raspberries and currants are a regular mine of luxury during the summer heat, when one so appreciates such cooling and healthful and nutritious articles of diet. The currants are specially craved during haying and harvesting, and it would be a deprivation indeed to go without them!

"But our nearest neighbor, though he had ten years the start of us, has never yet raised an apple, and not a single berry or currant! He has once in awhile set a few apple trees, but he has left the pruning to his cattle and colts, and they have done the work far too well! He is very glad about these days to send 'the children' over to our orchard to pick up the fruit which drops off, from which 'the old lady' elaborates a little 'applesass!' But such a thing as a dish of berries and choice ripe currants is very seldom, if ever, seen on his table. He has never set so much as a pie-plant, and if even this coarse substitute for fruit is ever used in his house, it has been begged from some more thoughtful and thrifty neighbor.

"Such neglect as this is without any excuse whatever. What motive, or lack of motive, it originates from one can hardly guess. Whether these procrastinating people are too stingy to make the small outlay required at the start, or are afflicted with downright laziness, or a combination of both these ailments, would be a difficult matter to establish. But the fact exists, that such utterly shiftless people do abound in every community, and that they are content to live year after year upon 'hog and hominy,' when the soil at their very doors would supply them with the choicest fruits that can be grown in the temperate zone! Every variety—grapes, strawberries, raspberries, blackberries, currants and gooseberries—can be produced in any quantities. Once established, their after care is very easy and simple, and they will load the farmer's table with choice, delicious and healthful food all the year round.

"Our advice to every farmer is simply this—make it a point to produce fruit enough to supply your own table all the year round. If you are going to open a new farm, do less of the hard work which brings only a small return, and plant fruit. If you cannot do all in one season, do a little each year, until you are quite sure that you have sufficient for a home supply. Not only will it pay you as we have set forth above, but the thought, investigation and study which its culture requires is a most excellent discipline for the mind—almost 'a liberal education.' There is no reason why every farmer should not be, in a moderate and modest way, a

horticulturist, capable of not only supplying a choice variety of fruit for his own table, but skilled in adorning his home in a way to make it a pleasant abiding place for all who are sheltered under its roof."

THE QUINCE.

Since the canning of fruit has become so simple, cheap, and easy, the question naturally arises, what shall we use for a family supply? In answer, we reply that in our own family the Peach and Quince hold important places, and are regarded as indispensable. We feel very much in regard to the Quince as the old farmer did about his boiled Indian pudding—"wanted three hundred and sixty-five in a year." Few will ever tire of good canned Quince; hence its culture is of importance.

Varieties.—The *Apple* or *Orange* Quince is the best in texture and quality, but the *Pear* is a healthier grower and more productive, ripening also later. The new variety, *Champion*, is more vigorous and productive than either, and is also an excellent keeper. A good plantation of Quinces should embrace all three varieties.

Soil and Location.—Almost any good soil will produce Quinces; a dry, sandy soil is the least favorable, a strong, moist loam, well drained, the best.

A peaty soil, on the margin of a free-running stream, almost always produces good Quinces in abundance.

Culture.—Shallow culture only should be given, as the Quince throws its roots near the surface. The best Quince orchard I have seen is where the owner resorts to mulching rather than culture. Sufficent manure should be applied annually.

Enemies.—The borer, the same which attacks the Apple trees, is the worst enemy of the Quince. The best remedy is a pint of soft soap mixed with one gallon of lime wash (common whitewash), which, when thoroughly applied from the base of the tree up eighteen inches, early in May each year, will save your trees from subsequent attacks of the borer.

Continual intelligent care will be followed by success in nine cases out of ten.—*American Garden.*

ROOT PRUNING.

The experiments were made on the apple and pear. A vigorous apple tree, eight or ten years old, which had scarcely made any fruit buds, has done best when about half the roots were cut in one season, and half three years later, by going half way around on opposite sides in one year and finishing at the next pruning—working two feet underneath to sever downward roots. It has always answered well, also, to cut from such trees all the larger and longer roots about two and a half feet from the stem, leaving the smaller and weaker ones longer, and going half way around, as already stated. The operation was repeated three or four years later by extending the cut circle a foot or two further away from the tree. By this operation unproductive fruit trees became thickly studded with fruit spurs, and afterwards bore profusely. This shortening of the roots has been continued in these experiments for twenty years with much success, the circle of roots remaining greatly circumscribed. The best time for the work has been found to be in the latter part of August and beginning of September, when growth has nearly ceased, and while the leaves are yet on the trees, causing greater increase of bloom buds the following year than when performed after the leaves have fallen.—*London Garden.*

THE ONION SMUT.

The Onion is one of the leading crops in many localitlies in the eastern states, and in some of them the culture of this vegetable has, within the last ten years, greatly diminished, and has even been abandoned because of the destructive prevalence of the Onion Smut. This pest is closely related to the Corn Smut, and makes its appearance upon the Onions while they are quite small. The smut plant in its early stages of growth consists of a multitude of small filaments or threads collected in knobby masses within the tissue of the Onion bulb and narrow parts of the leaves just above the bulb. A little later the epidermis or skin of the leaves bursts open and a vast number of dark brown particles of dust are found, which are the spores of the fungus. The Onion is still small when the spores are produced, and it seldom continues to grow.

It is thought by those who have investigated the trouble that the smut has come from the wild Onion or Garlic, and this suggests as a precaution that all of the wild Onions should be destroyed. When the smut plant has perfected itself and ripened its myriads of spores, the soil becomes more or less charged with these *seeds*, and spores are seeds as far as their functions are concerned, of a destructive pest, and give truth to the expression often heard among afflicted Onion growers, that "the disease is in the ground." A remedy is always the desired thing when there is any disorder. If the spores have already infested the ground they must be destroyed. The best way to do this is to cease growing Onions on that land for a term of years sufficient to exhaust the vitality of the dormant smut spores. Put other crops on the land, and after about six years it will be safe to try Onions again.

The Onion smut is still somewhat limited in its range and every precaution should be taken to keep the pest from getting widespread. Great care should be exercised in not taking seed from a smutty locality. The spores being very small they may cling to the rough surface of the Onion seed and be sown with it. As a precaution soak the seed, that the water may remove, as it will, many of the adhering spores. Onions grown from sets are not so much troubled with the smut as those from the seed. It is probable that the tender substance of the young seedling offers much more favorable conditions for a successful growth. It is a fact of general application that the stronger (and it would seem as if even young Onions were strong enough) the plant, the more vigorous its growth the less liable is it to attacks from fungi.—DR. BYRON D. HALSTED, *in American Gardener.*

WASH FOR FRUIT TREES.

The object in applying a wash to trees is not so much to remove the rough and scaly outer bark as to destroy the parasitic plants and insects which adhere to the surface of the bark and sap the vitality of the trees by a constant drain upon the circulating current. One form of wash is made by adding one pound of whale oil soap to three gallons of warm water, stirring well and applying with a stiff broom brush. The trunk should be rubbed thoroughly and hard to remove as much as possible of loose bark, that the liquid may reach every part of the surface. Another good wash is a weak lye from wood ashes. A third wash is made by adding two quarts of soft water to one gallon of common soft soap. Place these in a vessel over the fire, and when warm the soap and water are readily combined by stirring, and should be applied in the same manner as the whale oil application. The best results are obtained by

washing the trees about three times during the season, applying the first in March or April, the second in June and the last in August. The insects as well as moss will be effectually removed, leaving the bark in a fine healthy condition.—*Western Farmer.*

CARBOLIC SOAP FOR INSECTS.

I am experimenting with Buchan's Carbolic Soap, as a preventive for injurious insects, and am so well pleased with the result thus far, that I wish to stimulate other horticulturists to try some experiment with the article.

For cut worms, I made the soap suds pretty strong—two gallons of water to half a pound of soap, and with it saturated a bushel of sawdust, then placed a little around the stem of each cabbage and tomato plant,—using a handful to eight or ten plants—adding a little more after two or three days when the odor seemed gone. This was completely successful in ground where the worms were quite plenty, and where plants not protected were speedily cut off by them. It is the cheapest and most easily applied remedy that I have yet seen.

For striped bugs on melons and cucumber vines, I find the same method of using the soap effective. if the sawdust is sprinkled on the plants every day,—which is very little trouble,—but I am now trying wetting the plants directly with weak suds made of ten gallons of water to half a pound of the soap, and I think this will prove the best.

For aphis or plant lice on cherry trees or the like, a sprinkling or two with the suds, by means of a sponge, or bending the shoots so as to dip them into a pail or basin, is speedy death to them. Care must be had not to have the suds too strong when applied to tender plants or young shoots of trees; experiments are needed for this point.—*Fruit Recorder.*

PALESTINE OF TO-DAY.

Nothing can well exceed the desolateness of much of the country. Treeless it is for twenty or thirty miles together. Forests which did exist thirty years ago —for instance, on Mount Carmel and Mount Tabor—fast disappearing; rich plains of the finest garden soil asking to be cultivated, at best but scratched up a few inches deep in patches, with no hedges or boundaries; mountain terraces, naturally or artificially formed, ready to be planted with vines as the German colony is doing at the foot of Mount Carmel, the villages nothing but mud huts, dust, dirt and squalor, the inhabitants with scarce clothes enough for decency, their houses ovens; large tracts without a horse or cow, sheep or dog; no pretence at roads, except from Jaffa to Jerusalem, and this like a cart road over a plowed field.

Everything is taxed; every fruit tree, so none now are planted; every cow or horse, etc.; every vegetable sold out of a private garden. Every eighth egg is not taxed, but taken by the government. In some places the taxes of the district are sold to the highest bidder. Nothing like a small farm-house is to be found far or near. If there were, the owner is liable to have soldiers or revenue officers quartered upon him, to be boarded and lodged at his expense. The towns are filthy in the extreme, none more so than Jerusalem itself.

This is a picture. I believe, in no way over drawn of that land which was once "flowing with milk and honey." What might it not become again with fair usage and good government? But there is no hope for Palestine while it remains in the hands of its present rulers. —*Cor. London Times.*

BOOK NOTICES.

We have received from the publishers a copy of a new book on Roses, by H. B. Ellwanger, of Mount Hope Nurseries, Rochester, N. Y.

It contains 300 pages of most useful information necessary to the successful cultivation of the Rose, the results of the experience and observation of many years of one who is himself an enthusiastic and most successful cultivator. It treats in a full and most comprehensive manner of soil, planting, pruning, manure, insects, diseases, and the varieties best adapted for particular purposes, as bedding and forcing, and those for bleak and very cold situations, with an exhaustive catalogue of varieties now in general cultivation.

Much pains has been taken with the classification, so that valuable distinctive features may be preserved and yet simplicity maintained, so as not to confuse and perplex.

The book is issued in very handsome style, by Dodd, Mead & Co., New York, 16 mo. cloth, $1.25.

HUBBARD'S NEWSPAPER AND BANK DIRECTORY OF THE WORLD.

This most comprehensive work of 2,591 pages is issued in two Volumes, Vol. I. being devoted to America, Vol. II. to Foreign Countries.

It contains lists of all the American newspapers and of the British Provinces, maps of the World, a fine map of North America, much interesting and instructive reading matter, *facsimiles* of English, French, Spanish, Egyptian, South American and Australian newspapers, articles descriptive of the several States and Territories of the United States; also a series of Gazetteer articles, descriptive of all foreign countries, and maps of all foreign nations. There is also a list of the responsible Banks of the World, embracing about twenty thousand Banks.

The whole work is a most astonishing compendium of valuable information, which should be in the hand of every business man.

Published by H. P. Hubbard, New Haven, Conn. Price $10.

GRAFTING THE GRAPE.

Though I have practiced grape-grafting for thirty years, and was one of the first to make it practicable, I am studying and experimenting with the subject yet. After testing with the utmost care, at various seasons, with apparently good wood, upon good stock, my success has been diverse, and I can fix on no particular season as positively better than another, yet my choice now is just before the buds begin to swell. If the stump at the cut bleeds, it will do no harm. On young vines, with a smooth place to operate, there need be but little failure; but with old stocks, the rough knotty butt is a serious drawback; but if the vine is laid down, say a foot deep, three feet or more distant from the stock, and then grafted on a smooth place, held in position with a peg, the earth pressed firmly around both stock and graft, with one bud of graft only above the surface, the chances of success are much better than when worked at the root of the vine; but in this case the shoots must be rubbed off as fast as they shoot up around the base of the stock. If the graft takes, the vine laid down will, by taking root, greatly help its growth, and after the second season the young plant can thrive on its own roots, and the old stock may be grubbed out.

The grafting of the grape on pieces of grape roots, in the house, in winter, with those that will not succeed from cuttings, is a simple and successful method, of which I will send you an illustration if desirable.—SAMUEL MILLER, *in the Fruit Grower.*

THE BRIGHT FLOWERS.

Oh, they look upward in every place,
Through this beautiful world of ours,
And dear as a smile on an old friend's face
Is the smile of the bright sweet flowers.
They tell us of wanderings by woods and streams,
They tell us of lanes and trees;
But the children of showers and sunny beams
Have lovelier tales than these—
These sweet bright flowers.

They tell of a season when men were not,
When earth was by angels trod,
And leaves and flowers in every spot
Burst forth at the call of God;
When spirits, singing their songs at even,
Wandered by wood and glade,
And the Lord looked down from the highest heaven,
And blessed what he had made—
These bright, bright flowers

That blessing remaineth upon them still,
Though often the storm-cloud lowers,
And frequent tempests may soil and chill
The gayest of earth's fair flowers.
When Sin and Death, with their sister Grief,
Made a home in the hearts of men,
The blessing of God in each tender leaf
Preserved in their beauty then
These sweet bright flowers.

The lily is lovely as when it slept
On the waters of Eden's lake,
The woodbine breathes sweetly as when it crept
In Eden from brake to brake:
They were left as a proof of the loveliness
Of Adam and Eve's first home;
They are here as types of the joys that bless
The just in the world to come—
These bright, bright flowers.

DOMESTIC RECIPES.

NUT CAKE.—Ingredients: Sugar, two cups; butter, one cup; flour, three cups; water, one cup; eggs, four; soda, one teaspoonful; cream tartar, two teaspoonsful; hickory nut kernels, two cups. Mix the ingredients, adding the nut kernels last.

LEMON DUMPLINGS.—Ingredients: Suet, four ounces; moist sugar, four ounces; bread crumbs, one-half pound; lemon, one. Grate the rind of the lemon, squeeze out the juice, mix all the ingredients. Put in buttered tea cups and boil three quarters of an hour.

APPLE FRITTERS.—Pare and slice in large round slices some fine tart apples; sprinkle the slices with sugar, and squeeze over them the juice of a lemon, and let stand a few hours. Make a batter of three eggs and two tablespoonsful of sweet milk, with flour enough for a thin batter, in which dip the slices of apple, and fry separately in butter or lard. When done sprinkle with powdered sugar.—AARON'S WIFE *in Prairie Farmer.*

TO PICKLE SWEET CORN.—Cut the corn rows from the cob; to every heaping four quarts you mix a small teacup of fine salt; pack in jars and set in cool place. It will soon form a thick, leathery skin over the top; let that be until wanted for use; when you take out to soak, wash it, and then soak in cold water for a few hours; it will retain its flavor far better than either dried or canned, and is far less trouble to care for than to dry, and is sure to keep well until spring.

TO PICKLE PEACHES, PLUMS AND PEARS.—Take of ripe peaches, plums, pears, or apples; seven pounds of sugar, one quart of vinegar, and one ounce of mixed spices; put the sugar and vinegar together, and pour over the fruit, allowing it to stand until the next morning, when repeat this process, straining the juice of the fruit, letting it come to the boil, and continue to do so for four mornings; then add spices, and put all over the fire and cook very slowly until they look rich and clear. Pears should be boiled in water until you can run a broom whisk through them. Quinces are also delicious when preserved in this manner.

THE SCHIZANTHUS.—The Schizanthus is a genus of beautiful flowers, adapted either for the open ground or conservatory. The name signifies cut-flower. All the species of this genus we believe, are natives of Chili, and were introduced into Europe between 1822 and 1831, seeds of S. *pinnatus* having been carried to England in the former year, and the more beautiful species, S. *retusus*, at the latter date. If seeds are sown in a hot-bed or cold-frame, and plants are put out in a warm, light soil, they will sometimes grow three or four feet in height, and will give abundance of flowers during the middle of the summer and autumn. We have also succeeded very well by sowing the seeds in the open ground in May, but the soil must be mellow and warm. The branches are slender and require the support of a light trellis, and they are broken very easily by the wind, so that a sheltered position is desirable.

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