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EARLY CANADA.

THE
Canadian Horticulturist.

VOL. VI.]

MARCH, 1883.

[No. 3.

STRAWBERRIES.

Some one has quaintly said that doubtless God could have created a better fruit than the strawberry but he did not, and we believe the sentiment is very generally accepted by most of the fruit consuming public. They ripen at a time when we crave their acidulated juices, which are so pleasantly flavored and delightfully perfumed, and withal put up in such beautifully tinted parcels that every sense is gratified. Besides the fruit is so easily grown that even the tenant of a few square yards of ground can have his strawberries fresh from the beds near his door, and in such abundance as to supply his table at every meal for at least a month in early summer.

Besides all this gratification of taste and sense, this fruit is valuable as a mere article of food. It is healthful diet, corrective of biliousness, and a valuable substitute for at least a portion of the animal food which we use in more than sufficient quantity. It is capable of supplying the waste occasioned by continuous and even severe labor to a much greater degree than we are wont to suppose. Were it used much more freely, and as a substitute to some considerable extent for the

heavier and more oleaginous food which is so commonly found on our tables, we should doubtless find that we were gainers by the change.

Three species of strawberry are mentioned in Gray's manual as found growing in America. Of these the Indica is hardly regarded as a true strawberry, and is an escape from cultivation, found in the vicinity of Philadelphia and southward. It has yellow flowers and leafy runners, and the fruit is insipid. The Vesca is the well known Alpine species, indigenous both to Europe and America. The seeds are not sunken in pits, and some of the varieties do not produce runners. The Virginiana is found growing wild from Florida to the Arctic regions, and westward to the Rocky Mountains. It is the most valuable of all the species, and is the parent of most of our cultivated varieties. It is more hardy, adapting itself to a greater variety of soil and climate than either of the others, or than even its congener, known as Chilensis, from having been introduced into Europe from Chili, though it is found growing wild on the Pacific slope of both continents. Hence it is that we find the Wilson, which is a descendant from the

Virginian strawberry, has been able to establish itself over such a vast extent of country (see Vol. I. of the *Canadian Horticulturist*), while the Jucunda can be grown in perfection only with careful cultivation, and that only upon peculiar soils and in favorable locations. Hence our hybridists, when experimenting with the strawberry, will need to bear these facts in mind.

In general, the soil best suited to the successful cultivation of strawberries is a rich, friable loam, that is well drained, yet retentive of moisture. If there be one thing essential to the securing of a fine crop of this fruit more than another, it is an abundant supply of moisture in the soil. This does not mean a wet soil, but quite the contrary. A wet soil will bake and become hard and very dry when the weather is hot and dry, and this is very injurious, and may be ruinous to the crop. If the garden is not naturally friable, it should be made so by thorough drainage, and kept so by proper tillage. If the strawberry bed can be thoroughly watered in very dry seasons, the result will be highly beneficial, as will be seen in the increased size and quantity of the fruit, and vigor of the plants. Mulching the surface with the clippings of the lawn or short grass cut from the fence corners will often prove a very valuable treatment.

The cultivation consists mainly in keeping the ground free from weeds and the surface loose and in a friable condition. Three systems are in vogue, known as the "matted row," the "hill,"

and the "narrow row" systems. In the matted row system as soon as the runners push out vigorously the cultivator is narrowed down to about eighteen inches and run up one row and down another, so as to draw the runners always in one direction, that they may not become tangled and broken. In this way the row of plants becomes widened, and a narrow strip is left for cultivation and for passing between the rows when gathering the fruit. Under this system usually two crops only of fruit are taken and then the plants are plowed under, another plantation having been set to fill the place of the one abandoned. In the hill system the plants are set out so that the cultivator can be run both ways, as in cultivating corn, the runners are cut off, and the plants only increase in size by stooling. In the narrow row system the cultivator run only one way, up and down, the runners are cut off, and the plants having been set out only a foot apart soon spread so as to form a continuous row. In garden culture the hill system will usually give the best results in size and flavor of fruit. In field culture one of the other systems is usually the most convenient and least expensive.

As to varieties, what shall we say? Each year some new claimants for popular favor are brought forward, of which one can only say,

"The last still loveliest; till 'tis gone,
And all is gray."

There seems to be no way left for us but to test each variety; as long as our patience holds out to plant them, and

decide each for himself which sorts he will continue to grow. Doubtless hundreds have been brought forward that were to supersede the Wilson, and yet to-day the Wilson in the hands of most cultivators is the most profitable variety grown.

Our colored illustration this month presents to our readers an early ripening sort of the Wilson type. It was raised by Mr. A. M. Smith, when he resided at Drummondville, and has been named by him the Early Canada. The illustration is a reproduction in colors of a drawing taken from nature, and is a very accurate representation of the fruit. It ripens about a week earlier than the Wilson, under the same conditions; is about as productive, as good a shipper, and much the same in quality and size.

CORRESPONDENCE.

MUSHROOM CULTURE.

MR. EDITOR,—Please inform me how to grow mushrooms with success through the *Canadian Horticulturist* and oblige,

Yours truly, H. B. L.

Toronto.

To grow mushrooms with success our correspondent will need to add to his knowledge, patience; and to patience, experience. In all the extent of vegetable culture there is not another that so mocks our skill and sets at defiance all our knowledge. Instead of yielding returns in from four to six weeks, according to our well founded expectations, it may be as many months before the much-wished for crop appears.

The first requisite is the material for the mushroom bed. Fresh horse drop-

plugs are procured from the stable every morning, and spread out to dry, where they are frequently turned over to dry and to prevent heating. It is of first importance to get the dung into proper condition, not so wet as to produce violent fermentation, nor so dry as not to ferment, but of that degree of moisture that will secure a nice, gentle heat.

The second requisite is a suitable place in which to prepare the bed. This should be where the temperature will not fall below fifty degrees of Fahrenheit, nor rise above sixty. If the room can be kept dark, so much the better, and the atmosphere never allowed to become dry. On this account many prefer a cellar having a dry bottom.

The third requisite is a properly prepared bed. This is made by placing first a layer of the dung, which has been collected and prepared for this purpose, laid regularly and evenly to the depth of five or six inches, and beaten hard as it is laid down, then in the same manner adding layer after layer until the bed is from a foot to eighteen inches deep. Now plunge a thermometer into the bed and watch the temperature. It should not rise higher than 110°; it may be that it will not rise above 100°. Gradually the heat will decline, and when it has fallen to 80°, the spawn should be planted. This you will procure of any of our large dealers in seeds. The bricks of spawn should be broken into pieces about the size of a hen's egg, and these inserted into holes made in the bed about nine inches apart and two inches deep, which should be closed again, and the whole beaten down firm. About a week or ten days after cover the bed with an inch and a half of light turfy soil, neither wet nor dry, but just moist enough to firm readily when beaten down with the back of the spade. To prevent evaporation cover the bed

to the depth of six inches with dry, clean hay.

And now little can be done but wait for the mushrooms to appear, which may be expected in about six weeks. When they begin to appear a nice moist atmosphere should be maintained. Some do this by sprinkling tepid water on the hay covering from a very fine rose, just sufficient to moisten it, as if by a heavy autumnal dew; while others distribute pans of water sufficient to keep up the requisite degree of moisture by evaporation from the pans. When a considerable crop of mushrooms has been harvested, and the bed shews symptoms of exhaustion, a good watering with tepid water, just once applied, will start the mushrooms again, and in this manner the bed may be kept yielding mushrooms for about three months.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

Will you be so good as to inform us in next *Horticulturist* as to which strawberries combine *productiveness, sweetness and fitness for growing in heavy clay soil.*

I have a Concord grape, ten years old, which neither grows nor fruits (does not cover four feet of trellis), while Salem and Creveling either side grow luxuriantly and fruit reasonably well. What is the matter? Had I not better dig it out? And will it do to replant another grape in the same spot?

As elsewhere, apples were a short crop in this region last season. But *Russets* and *Baldwins* stood out conspicuous for full bearing amid otherwise scantily fruiting orchards.

Goderich, Feb. 3, 1883.

RUSTIC.

REPLY.—You will find Charles Downing, Triumph de Grand, President Wilder, Jucunda, Forest Rose, Sharp-

less and Springdale to thrive on rich clay loam. Surely among these you will find some that will suit your taste for sweetness.

There is surely something wrong at the root of your Concord vine. Dig it up and see what you can find. It may be the soil is not suitable, or insects are preying on the root. You might try the vine in another spot, and see if it will do any better; this more as a matter of curiosity than profit, for a young healthy vine will be worth more than this stunted plant. Yes, try another variety in the place where the Concord now stands, and see how it will behave.—Ed. *Can. Hort.*

THE CURRANT-WORM.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST :

I notice the remedy recommended in your January number for the cabbage-worm pest, and mean to try it, as I have been obliged to give up growing cauliflower on account of the ravages of the worm. For years past, however, I have kept my currant and gooseberry bushes clear of the worm by liberally mulching the bushes with tobacco-stems as early in the spring as the ground will work, first spading in some compost, and, after levelling off, laying a thickness of about fifteen inches of the stems under each bush. This mulch is beneficial to the bushes, keeping the ground moist, while the potash contained in the stems serves as a fertilizer. My bushes make vigorous growth, bear well, and are under this treatment proof against the worms. I get any quantity of stems I want from a local tobacco factory without charge.

Yours truly,

H. PRIMROSE.

Pictou, Nova Scotia.

[NOTE.—We trust that our correspondent will give the result of his trial to the readers of the *Canadian Horticulturist*.]

SMALL FRUITS FOR FARMERS.

(For the Horticulturist.)

Why is it so few farmers grow small fruits enough for their own tables? It is not on account of the work required to grow them, because there is no crop grown on the farm that will give better returns for the amount of labor bestowed upon them. There are several reasons; perhaps the greatest is, they know so little about growing them, they think it requires a great amount of labor and skill, and, again, so many have bought a few plants and put them out in the garden, where all of the work has to be done by hand, hence requires so much time they do not get attended to. The time is not far distant when farmers will think as much of having their patch of strawberries and raspberries as they do of their potatoes and cabbage. Every farmer's lady knows how difficult it is to get up a nice meal early in the summer without having a patch of strawberries to run to. The plan that is most practicable for farmers, as a rule, is to plant out a few rows in the spring, on any soil that is good enough to grow potatoes. Clay loam is to be preferred, if not too heavy; if it has been plowed in the fall do not plough again in the spring, but cultivate well and plant early. It will take but a short time to set the plants, and they will not need any more work until after seeding is done.

For strawberries, plant in rows four feet apart and twelve to eighteen inches apart in the row. Cut off the first runners that make their appearance, also cut off all fruit stems. As soon as they send out three or four strong runners at once let them run, but keep working with your corn cultivator between the rows, narrowing the cultivator as the rows spread out until you get a row eighteen or twenty inches wide, letting the plants grow as thick together as they choose in the rows.

In the fall, as soon as the ground freezes, cover with straw, putting the most between the rows and just enough on the plants so you can see them through the straw. Leave it on until after the fruit comes off. The plan we have found to take the least work where land is plenty, is to plant out a few rows every spring and work as above. It does not take as much work to set out and take care of a new patch as it does to clean out the old one. You can leave the old patch to bear another season without any work, except cutting out the large weeds that grow up among them. You will get quite a crop of earlier fruit, but not so large as from the new plantation. By planting several sorts, such as Crescent Seedling for early, Wilson and Captain Jack for medium, and Sharpless and Kentucky for late, you can have them on the table every day from four to six weeks, and if you want to grow some of the finest and best flavored you ever saw, plant a few of Longfellow, Warren and Bright Ida.

Raspberries should also be planted so they can be worked with a horse and cultivator. Put in rows six feet apart and four feet apart in the row. When new growth is two to three feet high pinch back and when side shoots get fifteen inches long pinch back again, then your bushes will grow strong and will not need staking. For the Cap varieties, cover the ground in the row, where you cannot cultivate (between the bushes) with coarse manure. It will keep the ground from drying out and largely increase the crop of fruit. The red varieties will grow too rank if manure is put around them until they have borne one or two crops of fruit. Let only four or five canes grow in a hill of the red sorts, hoeing off all suckers as soon as they make their appearance. If worked well until July, will not need any after that time, and

but few weeds or suckers will grow. The most popular Black Cap at the present time is the Gregg. It is very late. It, with some one of the early sorts, of which there are several now offered by responsible dealers, will give all that is desired in black varieties. Turner and Cuthbert are the two best red varieties yet fully tested and will give a succession of fruit from early to the very latest.

W. H. HILBORN.

Arkona, Jan. 22nd, 1883.

THE ENGLISH SPARROW.

I regret to see that at the meeting of the Ontario Fruit Growers' Association, Mr. W. E. Wellington's adverse resolution regarding the English Sparrow was passed.

Having had a very long acquaintance with the bird, and having observed it closely in England, as well as in other countries, my conclusion is most decidedly, completely in its favour; in fact, I do not know of any small bird equally useful as a destroyer of moths, butterflies and caterpillars. Times without number have I watched the sparrow in the early morning carefully searching crevices and chinks in buildings for moths; and numbers have I seen turned out of their hiding places and captured by the little bird. So fond of moths is the sparrow that I have even seen it abstract dry, dead ones in the winter time and eat them. Many and many a time have I seen the white cabbage butterfly (*Pieris rapæ*) hotly chased for a hundred yards or more by the sparrow, which seldom failed in making a capture, although the zig-zag, unsteady flight of the insect frequently sorely puzzled the sparrow. I have, too, often seen the sparrows collecting caterpillars and flying off with them to their nests; and anyone who has closely studied the

habits of the sparrow in England, knows to what a great extent caterpillars form the food of the young. It should be borne in mind that the young of the Fringillidæ are not fed on hard seed, nor on fruit, but principally on insect food. It is principally as a destroyer of moths that I admire the sparrow. To some butterflies it is partial, but any moderately sized moth it will greedily seize; and a more clever searcher for moths in their day time places of concealment it would be difficult to imagine. On this account, if no other, the sparrow should be carefully protected. It is the very best friend the gardener and the fruit grower could have, but unfortunately in this country its habits seem to differ from those of the old country, for there it is freely distributed over every farm in the land, while here it will not leave the shelter of the towns and villages. My farm is only about a mile and a half from Milton, where there are a number of sparrows, but I have not seen a sparrow on my place yet.

The sparrow will take its small share of grain and fruit, but this is amply paid for by the insects destroyed by this most useful bird. I need not say more in favor of the sparrow than that I most surely know it, from my own careful observation, to be a great destroyer of injurious insects, and it would be indeed a pity and folly to exterminate it, now that it has been introduced to the country. I only wish it were generally spread as at home, and I am sure it is most welcome to the run of my farm and orchards. I don't think any reliable conclusion will be come to by the proposed committee on the little bird, and if they come to an opposite conclusion to the statements of the three leading British naturalists whom I shall now quote, I shall be sorry for the committee as well as the sparrow.

Yarrell, the author of the standard work on British Birds, says:—"Their young are fed for a time with soft fruits, young vegetables and insects, particularly caterpillars, and so great is the number of these that are consumed by the parent birds and their successive broods of young, that it is a question whether the benefit thus performed is not a fair equivalent for the grain and seeds required at other seasons of the year."

Macgillivray, author of an elaborate and critical History of British Birds, says:—"The seeds of various plants, such as the field mustard, *Sinapis arvensis*, the charlock, *Raphanus raphanistrum*, the chick weeds and mouse ears, *Stellaria* and *Cerastium*, as well as of the field and garden pea, *Pisum sativum*, are also gathered; and in summer it partly subsists on insects of various kinds, which also afford the chief nourishment of its young."

Dressor, the author of the recently published magnificent work on the Birds of Europe, says:—"In open places where there are a few trees in the towns, such as the gardens in the squares or in the parks, it is eminently useful in ridding the foliage of the insects which would otherwise destroy the leaves and tender shoots; and its utility in this respect has led to its being introduced into the United States, where in the main streets there are avenues of trees which, previous to the introduction of the present species, were rendered bare and leafless by the ravages of caterpillars. During the breeding season insects, whenever they are to be had, form the staple food of both old and young birds. Mr. Snell says that it is very fond of the seeds of *Polygonum aviculare*; and it may occasionally be seen to catch the common white butterflies (*Papilio brassicæ et rapæ*) on the wing, though not so frequently as one could wish. It destroys, however,

myriads of the small smooth caterpillars and larvæ which feed on the buds of the trees, and is one of the best guardians of the orchard. It is true that it also takes toll of the fruit, but one can well spare a little when one reflects how much the crop of fruit is dependent on its active labors in destroying these noxious insects."

The authors referred to speak of the sparrow being a consumer of the seeds of weeds; this is the case with almost all the Fringillidæ, and I have observed the snow bunting (*Plectrophanes nivalis*), and the mealy redpole (*Linota linaria*), on many occasions very busy with the seeds of different weeds which got the better of us in this land of weed luxuriance, as it is also the land of caterpillars and vigorous insect growth. We want not only abundance of *Passer domesticus*, the common sparrow, but of as many similarly disposed birds as we can get, for the little birds of the country don't make any headway against the insect pests. During last summer the trees in my "bush," and in all other "bushes" that I saw, swarmed so with caterpillars that walking in them was most unpleasant, we got so covered with caterpillars.

Pray let everyone advocate the careful preservation of so useful a bird. Better let the sparrow have a little of fruit and everything else, than let the insect pests have nearly all, or all, as the case may be. I did not secure a single one of my cabbages this year owing to the ravages of the caterpillar of the white butterfly. I did my best, trying to catch the insects with the butterfly net, but they stole a march upon me and the caterpillars were abundant. Did not I wish for a flock of the English, or any sparrow that would do the work.

All the small birds and thrushes (*Turdus migratorius*, the "Robin" in-

cluded), are most useful in regard to insects and their larvæ, and we can well afford the very little fruit some of them take. At least three pairs of "Robins" bred near my house, and I hardly missed the cherries taken; but the Red-headed Woodpeckers (*Melanerpes erythrocephalus*), did take a considerable number of cherries, and when cherries were over they scooped out many an apple, especially colverts.

A selection of our useful insect destroying birds, such as common and tree sparrows (*Passer montanus*) Chaffinch (*Fringilla cœlebs*), Brown Linnet (*Linota cannabina*), and the Buntings, *Emberiza citrinella*, *E. miliaria*, *E. schœniclus*, *E. cirrus* and *E. hortulana*, would be of great service to the country. Apart from their useful work, the songs of some would render the country doubly delightful. The Skylark (*Alauda arvensis*), ought also to be introduced as a great devourer of field insects; and would not its song be an acquisition to Canada. I believe one or two attempts were made to introduce the skylark in the States; but English birds, instead of Norwegian or Swedish, were tried. In the north of Europe the skylark is migratory, so is the song thrush (*Turdus musicus*). North European examples would have gone south on the approach of severe weather, but English larks would not know what to do, and I am afraid they all perished in the States with cold.

Of the European insectivorous birds, the true *Silviadiæ*, we have not any in Canada. They would be very difficult to import, but the Finches, Thrushes and Larks might be naturalized in Canada. This is the work that ought to be done, instead of exterminating the poor useful sparrow.

I remain, yours faithfully,

W. E. BROOKS.

Milton, 1st Feb., 1883.

DO BEES INJURE GRAPES?

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

SIR,—A letter in last issue of the *Horticulturist*, from the pen of D. V. Beacock, reminds one that this vexed question is not yet settled to the satisfaction of everybody. The testimony of the Hon. J. C. Rykert and Mr. Taylor has been given against the bees; whilst the testimony of many others, both here and elsewhere, has been adduced as evidence of their guilt. At a meeting of the Canadian Horticultural Society, recently held at Owen Sound, this question was brought up and discussed. The poor bee, having no friends in court, was found guilty, and convicted of the crime charged against it. Absence from home on that occasion prevented my being present and testifying in behalf of the innocent insect.

That bees work upon injured grapes there can be no question. That they work upon injured apples, rotten pears, bruised peaches, and damaged plums, is equally true; but my own observation satisfies me that they never puncture or in any way injure a perfectly sound grape, or any other sound fruit. I have grown grapes and kept bees for some years. I have closely watched the operations of my bees upon my own grapes. I have repeatedly tempted them to commit the depredations charged against them by hanging bunches of sound grapes upon and in close proximity to their hives, and I have never yet known them to attack or injure a perfect berry. I have afterwards gone round and bruised some of the grapes by pressing them between my fingers, and immediately those bruised grapes would be covered by bees, utilizing what would otherwise be lost; but the unbruised grapes were invariably left untouched and uninjured.

I have frequently extracted honey in my glass grapery when the fruit was

ripe, and although the building would be swarming with bees, and the berries that had burst (as they frequently do) would be emptied of their juices, I have not seen a sound grape punctured or otherwise injured by them. With outdoor grapes my experience has been the same. I have had as good an opportunity of judging on this question as most men, and my testimony is that bees never injure perfect fruit of any kind.

R. McKNIGHT,

President Ontario Beekeepers' Association.

Owen Sound, Jan. 19, 1883.

REPORT ON FRUITS.

The apple crop in this part of the country has been the poorest I have seen for some time; the show of blossom was as fine as I ever saw. We had cold, bad weather at the time, which I think injured the blossom. The Snow Apple, Early Joe, Harvest and Norton's Melon set an abundant crop, but the fruit was so spotted and knotty that it was of little worth. Baldwin, Red Astrachan, King of Tompkins, Maiden's Blush, R. I. Greening, Canada Reinett and Ribstone Pippin had a light crop of good fair apples. Alexander, Duchess of Oldenburg, English, Roxbury, A. G. Russet, Hubbardston's Nonsuch, Hawthornden, N. Spy and Dutch Mignonne were heavily laden with fruit, some of them as fine as I ever saw. The Fall Pippin, Esopus Spitzenburgh, Gravenstein, Hawley and Indiana Rose Ripe failed badly. Some did not set any fruit. The Dutch Mignonne apple was the heaviest loaded and finest, in size and appearance, they have ever been since bearing. I find ready sale for them on the Brantford market at \$1.40 per bushel. They do not appear to be much known. I have not seen any at the market or shows besides my own. They are not on any fruit catalogue that I have. A. J.

Downing speaks highly of it in his *Fruits and Fruit Trees of America*.

The Burnet grape has done well with me. It fruited the first time the past season. The Senasqua grape failed to grow. The Moore's early grape vine, sent last spring, has lived and made fair growth.

I remain yours truly,

JAMES COWHERD,

Newport P. O., Ont.

PEARS CRACKING AND SPOTTING.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST:

Will you, or some of your readers, tell me through your magazine what the cause is of my pears cracking and blotting? The kind most affected is the Flemish Beauty. I almost lost my whole crop last year. They seemed to be all right until they were about two-thirds grown, and then they were first taken with black blotches—just as though they had been splattered over with black ink. This caused the skin of the young fruit to harden, and shortly after the fruit started to crack open. In a great many cases the cracks ran horizontally and reached nearly around the fruit, and in very bad cases it nearly penetrated into the core, and in other cases the cracking will run in all directions without any limit or rule—only to destroy the entire fruit. This trouble made its first appearance two years ago, but it was not fatal until last year. I have some trees highly cultivated with top-dressings of wood-ashes—a clean surface—no other crop grown amongst these trees. I also have trees growing in sod without any cultivation, and their fate is exactly the same as before stated. All my early pears up to the Bartletts have not shown any signs of the aforesaid disease. My soil has a clay bottom, with a black, rich mould on top, with a good descent in the direction of a running stream of water. I have well on to a hundred

pear trees, and about one-third of them are now coming into bearing, but diseases are, it seems, following up as fast as the trees are growing. Please, sir, if there is any cure, will you let me know through the *Canadian Horticulturist*, and oblige your constant reader?

D. B. H.

January 19, 1883.

FRUIT IN CLINTON, ETC.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

I think that the readers of the *Horticulturist* should return you thanks for its excellent appearance, and for the valuable reading it contained during the past year. I think it a shame that every fruit-grower cannot be induced to take it. As an old member and residing in a cold part of Ontario, the difficulties of fruit-growing the past year have been many. I think that it was the spring frost that killed the plum and peach crop and lessened the grape crop. I trimmed the grape in the fall, laid them down and covered them with leaves and boards. I had a medium crop. The Clinton and other thin-leaf varieties were eaten bare, so that the fruit did not ripen; the spring was late and the frost came on early in the fall, so that the late grapes were destroyed. My Burnet grape has fruited three years. I have had to root it up as I cannot prevent it from mildewing; also the Salem. I potted strawberry plants, and they bore a good crop the first year. There was an insect that eat the leaves in small holes. If I found a plant dying, on digging up the root there was the larva of the June beetle, good to feed chickens. The gooseberry and currants were badly affected with worms on the leaves all the season till the fruit was ripe; the rain washed the helebore off. To avoid the loss of my bushes by the pith worm, I think the bush form is the best, as you can cut out the affected stems and renew with

new wood; not so with the single stem or tree form, as it will destroy it. I tie them together in the fall, so as to prevent the snow from breaking them down. I have a number of unfruited English gooseberries; most of them are affected with the mildew. The Downings and Houghton Seedlings are the best for a sure crop here. The Grimes golden pipin apple has fruited some years. I picked three bushels last fall badly affected with the worm; the fruit is good quality for eating, cooking or keeping. I have them on hand now. The crop of apples was not good in this country last fall—worm-eaten, spotted and disfigured—yet thousands of barrels were shipped; but the greatest difficulty is to get fruit-growers to be honest and pick and pack them right for the English market. My Grimes golden pipin tree is badly affected with the bark coming off in scales, leaving a hole open into the wood underneath; it is full of insects, and I call them the woolley aphid. They are red and look like a mildew on them; they came with the tree. What is your remedy to kill them? I was going to wash the tree with soft-soap water in the spring. [Yes, that is right.—Ed.] What is the cause of the strawberry flower going into a black, hard substance instead of to fruit? [Probably late frost.—Ed.] The plum trees are all getting badly affected with rot and black knot. We ought to get a law passed, making a fruit-grower a constable, to protect him from boys stealing his fruit. I have tried different ways to keep grapes. The only way I have succeeded in is putting them down in sawdust. I found hemlock best, dried in the oven. We put down some Clinton, Isabella, Salem and a few of Rogers in cork sawdust that I procured at the fruit stores, that the Spanish grapes are packed in. My grapes are opening out as fresh as when they came off the vine; some of the stems

are quite green. I sent to St. Catharines' cork-factory for a barrel of dust, but they sent cork-shavings. If they would grind it up to dust, it would pay grape-growers to buy it, as tough-skin grapes will keep till after this, and our best grapes are better quality than the tough white Spanish grape. We brush the bunches with a downy feather, and it takes the dust off the grapes. I syringe soap-water over my vines to protect the leaves from the insects. I think it stops them some. Do you know any remedy? I consider the Champion grape not much account here, only being early. The Council give me power to get all the shade trees on the street that are dead or objectionable. I have been going for Lombardy poplar, abele, willow and the locust. The last is like a honey-comb, eat out with borers. We have had a planting-day in the spring. We have set out over a thousand maples a season. I have cut down poplars eighteen inches through, making several cords of wood, since I first saw them planted. It is not every town that heats its town hall with trees planted by its citizens.

W. C. SEARLE.

EARLY RIPENING GRAPES.

I would like to see the names of about twelve of the best early grape vines in the *Canadian Horticulturist*. My Concord grapes did not ripen last year. I think that if they would ripen before the Concord they would answer here. I had ripe grapes on one vine, and fruit on three that did not get ripe.

H. P.

Moore's Early, Early Victor, Jessica, Herbert, Lady, Massasoit, Worden, Delaware, Champion (but of poor quality), Janesville (also poor quality), Early Dawn (very subject to mildew), Halford Prolific.—Ed. *Can. Hort.*

PROPAGATION OF THE WEIGELA.

TO THE EDITOR OF THE CANADIAN HORTICULTURIST.

Would you kindly give in the next issue the plan pursued in propagating the Weigela Rosea, and oblige,

Yours truly, R. M.

You will probably succeed best by lurching the young shoots of last season's growth. Peg them down in the spring, burying the bent portion deep enough in the soil to keep it moist, and remove from the parent plant in the fall or spring following. It can be propagated from cuttings of the young wood under a hand-glass, or better from cuttings of the half ripened wood taken off in summer and rooted in a frame.

PACKING CELERY.

Can the Editor, or any reader of the *Horticulturist*, give a recipe for packing celery for winter use? I had about sixty heads taken up and buried in sand, in the cellar, to about the same depth as they stood in the ground. They took root and did finely for about two months; then they wilted at the top and began to decay. The decay ran all the way to the root, following the two centre leaves. This was my first experience, and not very successful at that.

G. H. F.

ENGLISH SPARROWS.—At the Michigan horticultural meeting several fruit growers told us that the English sparrows were rapidly bringing grief to the farmers and fruit growers. It was the old story of destructiveness and fighting propensities. And now we notice in an exchange that at Mt. Vernon, Ill., a gentleman had twenty acres in wheat, from which he expected a fourth of a crop, the heads having every appearance of promising such a yield. He resolved to cut it for seed, and sent some persons to gather it. They returned soon after and reported that there was not a grain of wheat in the field, the sparrows having eaten the entire crop.—*Prairie Farmer*.

THE CHERRY SLUG.

(Selandria cerast.)

This troublesome enemy, which attacks alike the cherry, pear and quince, has now nearly completed his operations for the present season. The foliage of the cherry is apparently his special favorite; although judging from results where he is allowed to operate unchecked, there would seem to be but slight difference.



FIG. 1.

We can but feel a degree of surprise that where a few moments of time and the scattering of a few handfuls of lime, ashes, or even dust, occasionally repeated, would suffice to exterminate them, they should so generally be permitted to run their race, year after year, often even to the utter ruin of the trees.



FIG. 2.

We detected them this season upon our quinces, which, in passing, we frequently examined, and by the use of an occasional handful of dry earth scattered over them, saved the foliage.

In doing the same with perhaps one hundred young pear trees, embracing perhaps forty distinct varieties, standing together in nursery rows, we discovered that the insect manifested a very decided preference for certain varieties, since those with smooth, glossy foliage were persistently avoided; while others, with different foliage, were as constantly attacked; the difference being equally manifested, even when the branches of the two interlocked. On several varieties, with very firm, glossy leaves, not a slug was discovered during the entire season; while with others ad-

jacent constant watchfulness was required to keep them in subjection.—T. T. LYON, in *Michigan Farmer*.

[NOTE BY THE EDITOR.—The insect above alluded to by Mr. Lyon is shown in the accompanying cut. Fig. 1 represents a leaf upon which may be seen a couple of these slugs feeding upon the upper surface. The slug shown in Fig. 1 and marked *a* is of full size. Fig. 2 represents the fly which laid the eggs, from which these slugs are hatched. They lay their eggs usually early in June, which hatch in about a fortnight. The slugs attain their full growth in twenty-six days, and in this time they moult or cast their skins five times. After the last moult they are no longer of their usual olive green color, nor are they shiny, but are smooth and of a yellow color. They now pass to the ground, burrow in it to the depth of two or three inches, form each a little cell, and in this cell change to the chrysalis, and in sixteen days the fly hatches out and lays her eggs for a second brood of slugs. This usually occurs about the first of August. This second brood attain their full growth about the end of September, go into the ground and remain there until spring. Hellebore mixed with water and sprinkled upon the slugs is sure death to them. Sometimes dry soil and even ashes fail to kill them; they crawl out of their sanded skins and go on as if nothing had happened.]

SHAFFER'S COLOSSAL RASPBERRY.

Last spring I planted tips of the new Raspberry, Shaffer's Colossal. To my surprise, there soon appeared shoots that set blossoms, and which were followed by the largest raspberries I ever saw. It was not an isolated case, but at least 10 per cent of the plants were bearing. They came in when other Raspberries were gone, and are in full blast



SHAFFER'S COLOSSAL RASPBERRY.

now, (July 29th), with a prospect of berries for a month to come. Not a few scattered berries, but trusses with fifty berries on one shoot, and such berries—an inch in diameter. The fruit is the color of the old purple cane that

I used to gather in my mother's garden more than fifty years ago. It has the flavor of the Catawissa and about the same texture. Not firm enough for very distant carriage, but it will be a splendid one for home use and a near market. It is not sweet like the Turner, but has a pleasant acid mingled with it, which makes it superior for pies, tarts and preserving, and with cream and sugar, I can endorse it fully from experience.—SAMUEL MILLER, in *Fruit Grower*.

THE HIGHLAND GRAPE.

I am not sure but we should review, and perhaps modify our opinions about the Highland Grape, as, when quite ripe, it loses its objectionable acidity, and as it has no foxiness, it may be, for southern regions and wherever the Catawba will ripen, a desirable grape. It is unfortunate that its period of ripening has been so misrepresented, for many have doubtless planted it in northern localities, where it will never ripen. This has been an unusual season, and many grapes have been a full month later in ripening than in other more favorable seasons; but I cannot believe the Highland should be classed as an early ripening grape under any circumstances. It is healthy and vigorous in growth, and the clusters are unusually large and handsome, and I think, from my experience with it this year, it will be found at least "good" in quality for southern planters, and for all places where it will ripen perfectly. G. W. CAMPBELL.

Delaware, Ohio.

REMARKS.—With the above Mr. Campbell sends us a bunch each of Highland, Lady Washington, and Naomi, the first two of which ripened with us perfectly this season, as until Nov. 3rd we had no frost. The berries of the Highland bunch were large and showy, but sour. As to the Lady Washington, there is nothing remarkable about it as to quality. The Naomi is a green grape, without bloom or color. Its flavor is peculiar, but not agreeable.—*Rural New Yorker*.

FLAT CULTURE FOR POTATOES.

EDS. COUNTRY GENTLEMAN—Several years ago I became a convert to flat culture for potatoes, and every season convinces me that this mode is preferable to the forming of hills around the plants. This season being a very moist one in this section, fully demonstrated with me that in moist as well as dry seasons flat culture is the better of the two. Just across the fence from my potato patch was a field of my neighbor's, of about four acres, planted about ten days before mine. The ground is alike on both patches—clayey loam. My neighbor manured more liberally than I did. He adopted the hilling method of culture, and I the flat method. In the early part of the season his made a much more vigorous growth than mine; in fact the foliage in his field covered the ground before mine had apparently well begun to grow. As the season advanced mine gained in growth upon his, and maintained greener foliage longer. His ripened about a week ahead of mine, but while his crop averaged 180 bushels to the acre, mine averaged 250 bushels to the acre. There was seventy bushels difference, upon soil similar, his having the advantage of more manure than mine. I consider that flat culture requires less labor than hilling, produces heavier crops, and the quality is just as good, with all other conditions the same. M. MILTON.

Mahoning County, O.

STRAWBERRIES AT ROCHESTER.—T. T. Southwick writes to the *Gardener's Monthly* that the fruit dealers in Rochester have paid out for strawberries this year \$84,000. One canning establishment absorbed 10,000 quarts a day, which at only five cents a quart would be \$500 daily, or \$1,000 at ten cents. The same house is said to have canned ten tons a day of cherries, or 200 tons in all.

HOW TO GROW EARLY CABBAGE.

I sow the seed of the kinds I wish to grow in February or first of March, in small shallow boxes in forcing pit, hot-bed, or if these are not to be had, a sunny window of the house will do. The boxes I use are eighteen by twenty-four inches, three inches deep; made of one-half inch boards. The kinds of early cabbage I generally raise are Early



EARLY JERSEY WAKEFIELD.

Jersey Wakefield (best if pure), Early Wunningstadt, Early Summer and Fotle's Early Drumhead. The first two for early; the others for second early. I only treated the first two as above stated; the second early I sow in common hot-beds 1st to the 15th of March. After the seeds sown in boxes (say 15th of February) are up and about three inches high, it is necessary to transplant them in other boxes, like those they were sown in, about one and a half to two inches apart every way; or if any wish to have them in small pots (two and a half inch) put one plant in each pot, and pots close together in boxes, treating the same as if planted in boxes. Pots are better than boxes and I use them largely. About one week or ten days before planting in garden, they must be hardened off by exposing gradually, night and day, in open air. I set out my plants from 15th of April to 1st of May. The plants which are in boxes are taken in the boxes to the part

of the garden where the ground is ready to plant. Take a garden reel, stretch out straight, take plants out of boxes with care so that the soil will stay on the roots. Plant Wakefield twenty inches in rows and Early Summer the same; the other kinds twenty-four inches. The rows should be thirty inches apart, so that a cultivator can be used. Early radish, lettuce, spinach, etc., can be sown between the cabbage rows and be out before the cabbage needs all the room. After cabbage, celery can be grown on the same ground. In this way other vegetable plants can be raised to advantage. In fact, I have raised all the following with success: early cauliflower, early lettuce, early kohlrabi, early Savoy, early celery, early beets, early tomatoes, early cucumbers and early squashes.—AUGUST D. MYLIUS, in "Gardeners' Monthly."

THE VIRGINIA FRINGE TREE.

(*Chionanthus Virginica*.)

To any one in search of a beautiful and not commonly seen shrub, or small tree, for the lawn, we earnestly commend the Fringe Tree, or White Fringe, under which name it is also known. It grows wild in Virginia and southward, and succeeds well in cultivation throughout the Northern States and Canada. Yet although it requires not more care than other lawn shrubs, and is much prettier than many whose place it might occupy, it is but seldom seen in northern gardens.

It grows from a bushy shrub to a small tree of twenty or more feet in height; its leaves are large, oval oblong, dark green, somewhat downy, resembling Magnolia-leaves; its delicate, snowy-white flowers hang in loose and gracefully drooping panicles. A Fringe Tree in spring, when in full bloom, covered with a profuse mass of long

graceful fringes of pure white flowers swaying in the breeze, partly hidden by the large, deep green, glossy foliage, is a beautiful sight indeed.

The shrub is of rather slow growth at first, but in a rich, loamy, rather moist soil, it thrives pretty well, especially when sheltered from the bleak west and north-west winds by a group of Evergreens. It may be propagated from cuttings, but it becomes hardier and more vigorous when grafted on the common Ash.—*American Garden.*

A NEW SWEET CORN—NE PLUS ULTRA.

One ear of this was sent to us and the kernels were planted May 16, in garden soil. The request came with the corn from W. Atlee Burpee & Co., seedsmen of Philadelphia, Pa., that we would test it and report "*just what you think of it.*" The ear sent was 5½ inches long—12 irregular rows, kernels much shrunken, small, peg-shaped and half-transparent. Our first "mess" for the table was cut August 8—34 days from planting. The stalks were slender and grew from six to eight feet high, bearing the ears generally low. The silk is always purple, the husks sometimes bronzed, the kernels deep, the cob very thin and reddish in the middle. Some stalks sucker moderately; others not at all. It is a very prolific variety, the main stalks bearing from two to five perfect ears. The size of the ear, while it may not be large enough to suit the prevailing market demand, is just that which enables one to hold it easily in the fingers and to eat the kernels from the cob without stretching the mouth open inconveniently wide. The quality is sweet, tender, delicious. We would suggest to those who try this corn that ears should be selected from the stalks which bear the most ears and which do not sucker. In this way this distinct

and very desirable sweet corn might still be greatly improved.—*Rural New Yorker.*

SMALL TREES.

"The average American is in a great hurry to realize on his investments. If he orders a few garden seeds in January he is anxious to have them sent immediately; and if he forwards six cents for a copy of some paper which contains a story which he has read or heard, he does not forget to request the publisher to send it "by return mail." Patience which takes the form of quiet waiting is a virtue of which he seems to be wholly ignorant. He cannot wait the progress of events, but must constantly hurry and fret in order to make nature move a little faster than her usual pace.

"This tendency crops out very plainly when he purchases trees. He finds them described in the catalogue as "second-class, medium, first class, extra." The difference in these classes is principally, if not wholly, in the size and height of the trees. The larger the tree, the higher the price—but the farmer "dont care anything about that." He wants "good trees or none," and gives his orders for those of extra size, and which are four or five years old. In doing this he thinks he is acting wisely, but the nurseryman knows better, and the farmer will find before long, that with equal care the small trees will grow faster, and, if a fruit tree, will come into bearing condition sooner than the large ones.

"In a half dozen years the tree that was small when planted will be larger and finer than the other. The reason for this is obvious. The larger the tree the larger the roots which it has, and the larger the roots the less fibers there will be upon them. A tree that has plenty of fibrous roots will grow readily, if proper care is used in the transplanting; but no amount of skill can coax a tree

to live and flourish which is destitute of these little fibres. The roots of large trees are mutilated in the process of taking up, while the small trees sustain little injury from this source. Dealers in trees assert that experienced men buy small, thrifty trees, while those who are just starting, are anxious for the largest to be had. Those who are to set trees the coming season will do well to learn

from the experience of those who, at considerable loss to themselves, have demonstrated that small trees are the ones to buy. The testimony of the foremost orchardists goes to show that one year old fruit trees will be larger and more thrifty, as a rule, and come into bearing as soon as those of two, three or four years old at planting from the nursery."—*Journal of Agriculture.*



OLD IRON-CLAD STRAWBERRY.

The plants are *very* vigorous—more so than the Sharpless. The fruit resembles the Sharpless greatly in size and shape. It is light scarlet—not as dark or deep as the Wilson. It is five days earlier than the Wilson. Blossoms perfect or Hermaphrodite. Berries carry well, having shipped it 300 miles in perfect condition, and selling much better than the Wilson. It stands the drouth perfectly, and is very healthy.

It is the rankest, healthiest growing plant on our place—even surpassing such sorts as the Bidwell, Sharpless, Green Prolific and Windsor Chief in this respect. It forms the largest stools or crowns, and makes the most fruit germs in the fall of *any* sort we ever

saw. We have grown and fruited it the past season, and in our *thirty-five years experience* in growing strawberries we have not seen its equal for growth and large sized plants, and in this respect it differs and is more distinct from other sorts than any known strawberry.

A prominent horticulturist of Missouri says of it: "This strawberry is a remarkable production. Last year scarcely a plant succumbed to the drouth in beds side by side with the Wilson, where not a plant of the latter survived, as can be attested by numerous growers here. All that is claimed for it is true. The only objection, if it is an objection, is that the berry is *too* large and in many cases not as handsome as some berries, as it has the appearance of three or four berries together to form a mammoth in size."—*Fruit Recorder.*

BLACK WALNUT TIMBER PLANTATIONS.

The planting of Black Walnut for timber will, if judiciously done, be a valuable investment. But it is desirable that it be done with reasonable expectations. The following letter, which we clip from the *Country Gentleman* gives the opinion of a writer who thinks that some are counting the profits too fast. He says:

In your issue of the 21st September, (see page 17 of this volume) I notice a note on black walnut, which I think contains some errors calculated to deceive those who are planting forests. The plan of planting and cultivating them is good, but the result cannot reach that profit that Mr. Ragan's figures denote. He says that in twenty-five years they will bring \$1,000 per acre. That would be producing \$40 per acre every year from the time of planting for twenty-five years, which is double as much as the ground would produce in any other crop for that length of time. Mr. Ragan says that walnut lumber brings \$100 per 1,000 feet in the cities. Some choice specimens bring that price, but there is more lumber sold for \$50 per 1,000 than there is for \$100. I have been handling walnut lumber, and it has always been high class lumber, and \$60 per 1,000 has been the highest price that I have received in Cincinnati, O.

I also think that there is a mistake about the growth of the trees. In twenty-five years he says the trees will be worth \$5 each (for lumber I suppose). At that age they will not be fit for lumber at all, much less grade as \$100 lumber, which must be 14 feet long and 20 inches wide (or thereabouts), and free from blemish of any kind. Again, he says: "At 14 feet apart there will be over 200 trees to the acre, and these should sell for \$5 each." Now, trees (or rather sapling) may grow at that distance, but they would never get large enough to make saw logs worth \$5 to the tree, or even logs that would be merchantable at any price. There is a tree on this farm that I know to be something over twenty years old, and it is standing in a very rich black walnut soil near a branch. It has always had a very strong and

vigorous growth, and it is now about one foot in diameter at the ground, and about 60 feet to the very top twig. If cut down it would look more like a skid to load logs with, than the log to be loaded. The black locust is much more profitable than the walnut. They will grow much closer together, and will grow at least twice as fast. They are also merchantable at 6 inches in diameter, making good posts at that size, whereas the walnut at that size is hardly fit for anything. At twenty-five years of age the locust trees may stand 14 feet apart, and might be worth \$2.50 each, or \$500 per acre, but I have some doubt about their reaching those figures. At any rate black walnut never can.—T. W. C.

Clay Village, Ky.

FRUIT EVAPORATORS.

The fruits cured by this process, for all cooking purposes, are the same as fresh or undried fruit; no one can tell the difference. The process of evaporating the water from the fruit being so rapid that fermentation is impossible, and with proper care in packing and storing, the fruit may be kept in perfect condition for years, thus enabling the excessive product of one season to be carried to the next, which usually alternates with a light crop. Every farmer having a good orchard should have an Evaporator; with it he can always make his apple crop yield him at least 50 cents per bushel, excluding labor and other costs. This in years of plenty would be of great value, as usually most of such crops are lost; there need be no fear of over-producing, any amount can be sold in Great Britain; parts of our Dominion will never produce fruit enough for their own use. This process will eventually drive out of use the abominable dried apples. The market price for the evaporated apples has been thus far in our Province from eight to thirteen cents per pound. The product from one bushel (apples) is from five-and-a-half to seven pounds per bushel.

All kinds of fruit, berries and vegetables can be dried, retaining their na-

tural flavor much better than by any canning process.—JOHN. H. PORTER.



THE SUPERB.

NEW SEEDLING RASPBERRY.

THE SUPERB.

Mr. J. Churchman, who introduced this raspberry to the public, thus speaks of it:—

It has now passed through its eighth winter and fully confirmed its previously well established reputation for *hardiness*, and borne an unprecedented crop of fruit during the past summer, notwithstanding unfavorable weather at the time of formation of the berries, and notwithstanding an unrestricted growth of young canes, which prevents the usual and proper tillage. The points of merit claimed for the *Superb*, as established by an experience of eight years, are:—

1. *Vigor of growth and hardiness of canes.*

2. *Earliness and length of bearing season*, beginning to ripen in ordinary seasons, about the middle of June, and continuing about four to five weeks on old wood—young canes bearing sometimes until October.

3. *Productiveness*, the show of fruit the season just passed, having excited the admiration of all visitors to my ground.

4. *Size, color and flavor of fruit*; size shown in accompanying cut; color, rich dark scarlet; and flavor remarkably spicy and tart; unlike any other raspberry.

5. *Power of resisting injury from drought*. During the whole month of July we had no rain at all of any value; and yet, while my bushes were almost

daily picked, producing through all that time, fine, large berries, and although during the last two weeks of the time, no moisture could be found in the ground at a spade's depth, yet the young canes have continued to show their peculiar, lively, green color, and none but the old bearing canes, nearing their natural death, having shown signs of suffering.

No claim is made to *extraordinary carrying qualities* for this berry, this would be in direct contradiction to its well established reputation for peculiar high flavor and richness, which its large lobes and very few seeds give it.

We give also the remarks of others for the benefit of our readers.

A. M. Purdy says of it, with us the *Superb* is perfectly splendid, largest size, bright color, wonderfully productive.

S. C. De Cott says it is a strong, healthy grower, prolific bearer, good quality, large, handsome and early.

E. Wolleb writes that his plants had a few berries, which in size and color were good, flavor good, rather too acid for my taste; must be excellent for jams.

E. Williams writes about it to the *American Garden* as follows—

This new candidate for public favor originated some eight or nine years ago on the grounds of Mr. J. Churchman, of Burlington, N. J. On fruiting it he was so well pleased with its appearance that he decided to retain the variety and extend its cultivation, which he has continued to do up to the present time.

He now has a patch of about an acre and a quarter, which, by invitation of that gentleman, I visited on the 4th of July last. Picking had already commenced in a small way some days previous, but I found the canes still

well loaded with a large crop of good sized berries in the various stages of development.

The plants, in foliage, fruit and other respects, strongly resemble the *Montclair*, though it suckers much more profusely, and appearances seem to indicate its Philadelphia parentage, as supposed. The berries were large, the best measuring three-quarters of an inch in diameter; color rather dark, flesh firm, with a rich sub acid flavor; quality among the best.

Mr. Churchman assured me that the size was much below the usual standard, owing to the want of moisture, the ground then being very dry and hard. This was undoubtedly the case; but this fact, in connection with the cool weather that had prevailed, furnished the best possible conditions for producing a rich, solid fruit, of good keeping qualities.

It was these conditions that enabled me to keep specimens, brought away in good condition, for three days.

Had the weather then been as moist and hot as it was during the latter part of September, I could not have done this—the berries would have melted down in half the time.

It is this condition of weather and growth, previous to and during the season of ripening, that decides the ability of this fruit to stand shipment to distant markets.

A berry may exhibit one season admirable carrying qualities, and another prove a decided failure, solely from these climatic differences. This fact alone shows the importance of not being too hasty in jumping at conclusions from a single season's trial.

The only absolute merit the *Superb* or any other raspberry could possess, in the minds of some, would be its ability to stand shipment to market.

This, with earliness and productiveness would make it the best in existence, as it opens the door to the alluring picture of *profit* so deftly held out to view. I think the *Superb* has other merits quite as valuable. We want fruit to *eat* as well as to *sell*, and should the *Superb* do as well away from home, with other's care, and remain healthy, I think it will prove a valuable acquisition to our list of good and really hardy red raspberries.

But the editor asks, "If it is so near like the Montclair, what is the need of it?" I reply, it is a more acid berry than the Montclair, and some people prefer the pleasant acidity of the one to the rich sweetness of the other. Tastes will differ as we all know, and they must be gratified.

BEST TREES FOR TRANSPLANTING.

D. S. Curtis in the *National Farmer* says:

"Neither with the shade trees or orchard trees is it best to select the thriftiest or largest trees of the given age, when taking them from the nursery, except it be a few when the very best care and skill is used in transplanting them, for the rank, thrifty trees in the nursery are apt to get a worse set-back and hindrance in their growth, and are even more liable to die from transplanting than those of the same age which are smaller, with more appearance of being stunted.

"MULCHING.

"There is one thing should be particularly observed in all transplanting of trees, whether for ornamental purposes or for the orchard, and which is too generally neglected, if not even too little known; that is, *mulching*—covering the ground for several feet around the stalk or body of the tree with straw, leaves, or other old litter which may be at hand. The lack of this simple operation is the cause of much loss in young trees. This mulching is necessary both to preserve the moisture below, and to prevent the soil becoming too heated by the sun around the roots of the young trees."

ABUTILONS.

These plants must be well known by the majority of our readers who are fond of flowers, and although they have been appreciated by them, they would be still more so if some of the newer sorts lately introduced had been tried. Some of the older ones make, no doubt, very fine plants, and are rapid growers, but then this is all at the expence of the number of flowers. We have had the pleasure of seeing some of the dwarf growing kinds lately, and I do not hesitate to say that any one will be pleased with them. Their peculiarity consists in branching out close to the base, in blooming when only a few inches high, and in giving two flowers from the axis of each leaf. The following are splendid varieties:

Mary Milliar—Fine bold flower, very large: a decidedly rosy pink color, dwarf grower, and very free bloomer, much more so than "Rosaforn."

Phillipine Welter—A German seedling, not quite as dwarf as the above, but a very good plant; flowers, parasol shape; color, salmon buff.

Purpureum—The freest bloomer we think; color, purplish crimson, changing to lighter purple as the flower fades. A very good plant.

Pauline Braun—A fine, bold, well-shaped flower, of a deep orange color, with a brilliant tint.

Golden Gem—Flowers small but of a very pretty lemon yellow color veined rose.

Abutilan Fraseri—Color, rich orange scarlet, shaded with crimson; a very fine plant, raised in Baltimore.

There are several more new varieties imported from England of undoubted merit, but any one will see from the above list what a splendid variety can be had these.

We must, however not forget the now old "Boule de Neige," which, as its name

implies, is a perfect "snowball." No collection should be without it, or "Darwini," which is also a free bloomer.

These plants are very easily cultivated, and increase readily from slips of half-ripened wood, or from seed. They flower best when pot bound, when they should be well watered with liquid manure.

Plants will bloom winter and summer. If you want a large specimen for winter blooming, plant it in the open ground, and lift it carefully in the fall, potting in goop rich soil. They require plenty of water, and will thrive in any situation, *in farm and garden.*

BOOK NOTICES.

THE MASSACHUSETTS HORTICULTURAL SOCIETY has issued its schedule of prizes for 1883. We notice that it offers prizes to the originators of new fruits, flowers and vegetables, originated since 1875, and which after satisfactory trial shall be deemed superior in quality, or some other characteristic, to any now extant, and worthy of general cultivation. Prizes of \$25 each are offered for the best essay upon:—

- 1st. The merits of hardy shrubs and perennial plants as compared with bedding-plants in the embellishment of small places, and the conditions most favorable to the use of either class.
- 2nd. The best method of constructing and heating a green house for amateur use, taking economy and efficiency into account.
- 3rd. Are live hedges to be recommended, either for utility or ornament, and, if they are, what plants are most suitable? In offering these prizes the Society desires to elicit new facts, and preference will be given to an essay which adds to our knowledge over a compendium of what is already known. Essays to be sent to Mr. Robert Manning, Secretary, Horticultural Hall, Boston, Mass., so as to be received by the 1st of November next. Competition open to all.

W. E. BOWDITCH'S CATALOGUE, illustrated, descriptive and priced, of Garden, Flower and Agricultural Seeds, 1883, No. 645 Warren Street, Boston, Mass., is most profusely illustrated and full of the needful information regarding the qualities and cultivation of the different plants. The printer of this catalogue cannot be commended for the style of execution; it might have been thought well done a century ago, but it will not compare with most others of its class upon our table to-day.

THE SOUTHERN CULTIVATOR AND DIXIE FARMER is almost a folio of thirty-two pages, published monthly by James P. Harrison & Co., Atlanta, Georgia, at \$1.50 a year. It gives the reader an intelligent view of the condition and progress of agriculture in that southern clime, and numbers among its contributors the best writers of the South. We notice in the January number interesting articles on the Sugar-Cane Question, Fish Culture, &c.

WINE AND FRUIT GROWER, and Fancy Grocers' Guide, is a monthly journal devoted to viticulture, pomology and the kindred industries. It is published by B. F. Clayton, 20 Vesey Street, New York, at \$2 a year, and enters upon its fifth volume improved in appearance and full of interesting articles upon the subjects to which it is devoted.

THE GOOD FARMER, a quarto of eight pages, of which Mr. D. S. Marvin is the editor, devoted to Agriculture and Horticulture. Mr. Marvin's well-known ability as an horticulturist and writer is a guarantee that the new venture in Northern New York will be ably conducted. It is published at Watertown, N. Y., quarterly, at 25 cents per year.

NELLIS' WHOLESALE PRICE-LIST OF SEEDS, from the Mohawk Valley Seed Gardens, A. C. Nellis, Canajoharie, N. Y. Illustrated with wood-cuts and a

colored plate of Nellis' perpetual prize-lettuce, which does not form compact heads, but forms large bunches of leaves. It is claimed for it that it is tender and rich, and continues in use a long time.

THE FARM AND GARDEN is published monthly by Child, Bros. & Co., 125 South Fourth Street, Philadelphia, Penn., at 50 cents a year. It is handsomely illustrated and neatly printed on well calendered paper. Our own pages have been occasionally enriched with short articles from this valuable monthly.

THE WESTERN PLOUGHMAN, published at Moline, Ill., at fifty cents a year, enters upon its third volume in very handsome style. It has stories and practical articles mingled together to suit the tastes of various readers, but gives little attention to the fruits and flowers of its section of country.

GREGORY'S ANNUAL ILLUSTRATED CATALOGUE of Vegetable, Flower and Grain Seeds, warranted, grown and sold by James J. H. Gregory, of Marblehead, Massachusetts, 1883. A very profusely illustrated, descriptive pamphlet of sixty pages, with instructions for planting and growing.

THE FARMER AND FRUIT-GROWER, of Southern Illinois, is published weekly at Anna, Union County, Ills., at one dollar per year. It is devoted to farming and fruit-growing and the development of that portion of the State. It is ably conducted, and full of interesting matter.

A. M. PURDY'S DESCRIPTIVE AND RETAIL CATALOGUE for spring of 1883, of Small Fruits, Fruit and Ornamental Trees, Flower and Vegetable Seeds. An illustrated pamphlet of thirty pages, giving very full descriptions of the fruit and flowering-plants offered therein for sale.

JOHN A. BRUCE & Co.'s illustrated and descriptive Catalogue of Seeds for

1883, Hamilton, Ont., is very handsomely illustrated, and contains much valuable information regarding the methods of cultivation and the qualities of the different vegetables and plants.

THE FARM AND GARDEN for January is full of information concerning vegetables, fruits and flowers. It is published by Child Bros. & Co., 125 South Fourth Street, Philadelphia, at Fifty cents per annum, handsomely illustrated and neatly printed on smooth paper.

THE SCIENTIFIC AMERICAN, a weekly journal of practical information in art, science, mechanics, chemistry and manufactures, is published by Munn & Co., at No. 261 Broadway, New York; price \$3.20 a year. It is handsomely illustrated and full of information.

PACIFIC RURAL PRESS, published weekly, at \$2 per year, in San Francisco, California. The sample copy received contains twenty pages, well filled with articles on rural matters, besides literary articles and advertisements.

THE AMERICAN FLORIST AND FARMER, published monthly by William E. Bowditch, 645 Warren Street, Boston, Mass., at \$1 a year, contains twenty-eight pages of reading matter, with illustrations of new or interesting subjects.

THE CANADIAN FARMER, published weekly at Welland, Ont., by the Welland Printing and Publishing Company, is under the able editorial care of Messrs. W. P. Page and S. W. Hill. Price \$1 a year.

THE SUGAR BEET, published quarterly in Philadelphia, Penn., at 50 cents a year, is devoted to the interests of sugar manufacture from the beet, and is full of information on these subjects.

THE AMERICAN AGRICULTURIST, 751 Broadway, New York, is presenting to each yearly subscriber a plate copy of Dupre's last great painting, entitled "IN THE MEADOW."

THE POPLAR FELLED.

The poplars are fell'd, farewell to the shade,
And the whispering sound of the cool colonnade;
The winds play no longer and sing in the leaves,
Nor Ouse on his bosom their image receives.

Twelve years have elapsed since I last took a view
Of my favorite field, and the bank where they grew;
And now in the grass behold they are laid,
And the tree is my seat that once lent me a shade.

The blackbird has fled to another retreat,
Where the hazels afford him a screen from the heat;
And the scene where his melody charm'd me before
Resounds with his sweet flowing ditty no more.

My fugitive years are all hastening away,
And I must ere long lie as lowly as they,
With a turf on my breast and a stone at my head,
Ere another such grove shall arise in its stead.

'Tis a sight to engage me, if anything can,
To muse on the perishing pleasures of man;
Short-lived as we are, our enjoyments, I see
Have a still shorter date, and die sooner than we.

W. COWPER.

HOUSEHOLD RECIPES.

TO CURE HOARSENESS.—At this season of the year it may be useful to know that hoarseness can often be relieved by using the white of an egg thoroughly beaten, mixed with lemon juice and sugar. A teaspoonful taken occasionally is the dose.

BOSTON BROWN BREAD.—One cupful of sweet milk, two cupfuls of sour milk, three cupfuls of corn meal, one cupful of flour, one cupful of molasses, one teaspoonful of salt, and three teaspoonfuls of soda. Steam or bake slowly three hours. This makes a good sized loaf.

CREAM BISCUIT.—One pint of sour cream (not too rich), one teaspoonful of salt, one and one-half teaspoonfuls of soda, and flour enough to make a little stiffer than baking powder biscuit. Do not knead or work the dough much. Roll to medium thickness, and bake in a moderately hot oven.

BAKING POWDER BISCUIT.—Into two quarts of flour, sift five teaspoonfuls of baking powder, mixing it in evenly. Rub into this a piece of lard the size of half an egg. Mix with good sweet milk into a soft dough. Do not knead. Roll medium thickness, cut out with a biscuit-cutter, and bake in a very hot oven.

GREEN TOMATO SAUCE.—One gallon of green tomatoes and 1 pint of onions chopped fine, 2 pints of vinegar, 1 pint of sugar, 2 tablespoonfuls of salt, 1 tablespoonful black pepper, (ground), 1 tablespoonful of cloves, (either whole or ground), 1½ tablespoonful of table mustard, 1 tablespoonful red pepper,

and boil all together until quite tender, it is best sealed up in air-tight jars. This is a delicious sauce for fresh meats in winter.

BREAKFAST MUFFINS.—One egg, two teacupfuls of sour milk, one-third of a teacupful (scant measure) of fried-meat drippings, one small teaspoonful of salt, two teaspoonfuls of soda, and flour to make of about the consistency of cake. Beat the egg till light; add the milk, salt and flour, and stir all till smooth; then stir in the gravy, and lastly the soda. Have the gem or muffin-tins hot and well greased; fill each, and bake in a very quick oven.

RHUBARB JAM.—Rhubarb or pieplant jam is very nice. Peel the stems and cut up in half-inch lengths; add an equal weight of sugar, and let it stand over night in a glass or stoneware dish. Next morning drain off the juice, and simmer slowly three-fourths of an hour, taking off the scum as it rises. Then add the pieplant and stew fifteen minutes longer. Rhubarb is seldom used for sauce after the small fruits begin to ripen, and the housewife can gather all she likes for canning, drying and preserving.

PARKER HOUSE ROLLS.—One quart of sifted flour, one-half cupful of good hop yeast, two tablespoonfuls of sugar, a pinch of salt, two tablespoonfuls of butter, and one of lard. Pour one pint of boiling milk over all these ingredients except the yeast, which add when the batter gets lukewarm. Let the sponge stand over night, and early in the morning add sufficient flour to knead into a loaf. When light, knead again, and roll out rather thin. Cut with a biscuit-cutter; then roll oblong. Spread a little butter on one end and fold over. Let them stand till light; then bake about 20 minutes.

GOOD HOP YEAST.—Grate six good-sized raw potatoes. Have ready a gallon of water in which has been boiled three small handfuls of loose hops, or what would be the same quantity of pressed hops; strained through a cloth or sieve. Pour while boiling over the grated potatoes, stirring until well cooked. If the mixture does not thicken like starch, set it on the back part of the stove and let it cook slowly. Care must be taken not to burn it. To this, while hot, add one teacupful of white sugar and one-half teacupful of salt. When sufficiently cool, add one cupful of good yeast. Let it stand until a thick scum arises on the top; then bottle, and set in cellar. One-half this quantity will be sufficient to make at one time for a family of two or three.