

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- |                                     |   |                                     |   |
|-------------------------------------|---|-------------------------------------|---|
| <input type="checkbox"/>            | Coloured covers /<br>Couverture de couleur  | <input type="checkbox"/>            | Coloured pages / Pages de couleur   |
| <input type="checkbox"/>            | Covers damaged /<br>Couverture endommagée   | <input type="checkbox"/>            | Pages damaged / Pages endommagées   |
| <input type="checkbox"/>            | Covers restored and/or laminated /<br>Couverture restaurée et/ou pelliculée   | <input type="checkbox"/>            | Pages restored and/or laminated /<br>Pages restaurées et/ou pelliculées   |
| <input type="checkbox"/>            | Cover title missing /<br>Le titre de couverture manque  | <input checked="" type="checkbox"/> | Pages discoloured, stained or foxed/<br>Pages décolorées, tachetées ou piquées  |
| <input type="checkbox"/>            | Coloured maps /<br>Cartes géographiques en couleur  | <input type="checkbox"/>            | Pages detached / Pages détachées  |
| <input type="checkbox"/>            | Coloured ink (i.e. other than blue or black) /<br>Encre de couleur (i.e. autre que bleue ou noire)  | <input checked="" type="checkbox"/> | Showthrough / Transparence  |
| <input type="checkbox"/>            | Coloured plates and/or illustrations /<br>Planches et/ou illustrations en couleur   | <input checked="" type="checkbox"/> | Quality of print varies /<br>Qualité inégale de l'impression  |
| <input type="checkbox"/>            | Bound with other material /<br>Relié avec d'autres documents  | <input type="checkbox"/>            | Includes supplementary materials /<br>Comprend du matériel supplémentaire   |
| <input type="checkbox"/>            | Only edition available /<br>Seule édition disponible  | <input type="checkbox"/>            | Blank leaves added during restorations may<br>appear within the text. Whenever possible, these<br>have been omitted from scanning / Il se peut que<br>certaines pages blanches ajoutées lors d'une<br>restauration apparaissent dans le texte, mais,<br>lorsque cela était possible, ces pages n'ont pas<br>été numérisées. |
| <input type="checkbox"/>            | Tight binding may cause shadows or distortion<br>along interior margin / La reliure serrée peut<br>causer de l'ombre ou de la distorsion le long de la<br>marge intérieure. |                                     |   |
| <input checked="" type="checkbox"/> | Additional comments /<br>Commentaires supplémentaires:  |                                     | Continuous pagination.  |



## TURNER.

A hardy variety, and appears to succeed in more localities than any of the other red varieties. Canes vigorous and productive. Good in every respect.

"PRINTED FOR THE CANADIAN HORTICULTURIST."

THE

# Canadian Horticulturist.

VOL. VI.]

SEPTEMBER, 1883.

[No. 9.

## SOME NOTES ON RASPBERRIES.

The past season has on the whole been favorable to the raspberry crop. The canes passed through the long protracted cold and ice of the past winter uninjured. This fact seems to indicate that the question of ability to endure cold is not altogether one of constitutional hardiness. The canes of those varieties which we have been wont to esteem very hardy have sometimes been injured during winters much less severe and trying than the past, while the canes of sorts which we have considered as tender came through the past severe winter unharmed. There is no doubt but that the condition of the canes when winter sets in, especially the well ripened state of the wood, has much to do with its ability to endure the winter. Having passed the winter without injury, they blossomed abundantly, set their fruit well, and the moist, cool season has on the whole been favorable to the development of the fruit. In some low-lying spots the moisture has been excessive and the plants have suffered, but in well drained soil the wet weather has not caused any injury.

There are now a great many varieties of this fine fruit, and it may be that the writer's experience with those that

he has been fruiting on his grounds will be of service to those who contemplate planting either for home use or to supply the constantly increasing market demand.

*Brandywine* has proved to be a very prolific sort, of medium size, not high quality, of good bright color, ripening just after the Highland Hardy, and selling well in market. It seems to be susceptible of improvement in size by liberal manuring, so much so that one of the western growers has the reputation of sending an improved or fancy Brandywine to the Chicago market, for which he gets an extra price.

*Caroline*. This was introduced to public attention as a berry of very fine quality, as being a very near approach in that respect to Brinckle's Orange, but it has not shown any such quality on our grounds. The plant is hardy and exceedingly productive. The berries are of good size for a cap variety, and when quite ripe resemble Brinckle's Orange in color, but there the resemblance ceases. The fruit is too soft for any but a near market.

*Cuthbert*. Further acquaintance with this fine variety only serves to confirm the favourable impressions made at its

first fruiting. It has so far endured our changeable winters remarkably well, and has yielded large crops of fruit. It does sucker too freely, and the grower of fruit for market will find it necessary to keep the suckers in careful subjection in order to secure large crops. The berries are large, of a good bright color, firm enough to carry well if properly handled, and sell readily. The flavor is good, reminding one of our common red raspberries.

*Davidson's Thornless.* An early ripening variety of black cap, valuable because it is so nearly free from the disagreeable thorns that tear our clothes, scratch our hands and lacerate our feelings. The canes are hardy and prolific. The berries are only of medium size, sweet and of fair flavor.

*Franconia.* This old variety is a profitable market sort when properly cultivated, and that means strong loamy soil well enriched, and the ground kept scrupulously clean. It is very productive, nearly hardy, and the fruit is of good color and carries well to a not too distant market. By nearly hardy is meant that it sometimes gets killed back by our winters, but it is not very often that the crop is materially injured from this cause.

*Gregg.* Thus far this is the largest black cap in cultivation, and the fruit finds a ready sale in our markets. The canes have never been injured by the winter in our grounds, and have yielded a large crop of fine fruit every season. The berries are covered with a peculiar bloom that detracts somewhat from their appearance, but their large size, meaty

pulp and good flavor have made them popular, and they usually sell for a cent or so more per quart than other black caps. The crop ripens up rapidly and is harvested in a short time.

*Hansell.* It is too soon to speak confidently of the qualities of this new sort, yet a few things are already settled by the first fruiting in our grounds this season; namely, it is an early ripening sort, of good color, and better in quality than the Highland Hardy or Brandywine, but whether it will prove the first to ripen is not yet ascertained, nor whether it will prove perfectly hardy here and sufficiently productive to be a paying investment.

*Highland Hardy.* After some years of trial of this variety one can only say that it is to be hoped that a better will yet be found to take its place. It is hardy and ripens its fruit quite early, which is of a bright color and of medium size, but seriously lacking in flavor, and yet it finds a ready sale in market because it comes in so early as to have no competitor.

*Hopkins.* One of the early ripening black caps, of good size, good flavor and good appearance. The fruit sells readily, being early, for the crop is all gathered before the Gregg ripens. The canes have thus far stood our winters uninjured, and have been well filled with fruit.

*Niagara.* Although this has not proved to be perfectly hardy, yet so far the injury has been so slight as only to affect the extremities of the canes. It bears an abundant crop of fine, large berries, of a dark crimson color, good

## The New White Grape.



### “FRANCIS B. HAYES.”

“A white grape with medium size bunch and berry, quality first rate, and very early.” [Tran. Mass. Horticultural Society, 1874, Part 2, page 154.]

“It has been spoken of in previous reports with much favor, and we have no reason to change our first impression.” [Tran. Mass. Horticultural Society, 1876, Part 2, page 96.]

“It is a white grape of excellent quality.” [Tran. Amer. Pomological Society, 1879, page 96.]

“Is of fine quality and promises to be of much value as a white grape.” [Tran. Amer. Pomological Society, 1881, page 168.]

Awarded a First Class Certificate of Merit. [Mass. Horticultural Society.]

ADDRESS: JOHN B. MOORE & SON, CONCORD, MASS.

flavor, and that continue to ripen in succession for some time. This feature makes it especially suited for the family garden.

*Philadelphia.* After all, this old variety seems to me as profitable as any. The canes are the most hardy of any of the red varieties, though there have been winters in which the ends of the canes have been killed back. It is the most prolific of them all, and is bought by the canning establishments in any quantity that can be offered, and although the price obtained per quart is a cent or so less than the larger and brighter colored berries will bring in the city markets, yet the results per acre are probably in favor of this variety.

*Reliance.* Said to be a seedling of the Philadelphia, which it greatly resembles in the color of its fruit. The plants have not proved to be as healthy as the parent, many of them being sickly, and in consequence not producing fair samples of fruit, nor a fair quantity. The canes that are healthy are very productive, and so far have not suffered from the winter, and the fruit is similar in form to that of the Philadelphia, but larger and somewhat better flavored.

*Shaffer's Colossal.* Rightly named Colossal, for nothing we have seen of the cap family equals it in size of cane or berry. There are canes in our garden fully ten feet high, and yet growing. The berries are considerably larger than those of the Gregg, but instead of being black they are of a deep maroon color when ripe, very juicy and less

full of seeds than most of the black caps. The fruit is too soft to carry well to a distant market, and not of a color to sell well when offered for sale. The flavor is more acid and sprightly than most cap raspberries, and not rich, yet when cooked and slightly sweetened it is very good. Thus far the crop of fruit has not been in proportion to the growth of cane.

*Solid.* A black cap variety received from Illinois, fruiting for the first time. The berries are nearly as large as those of the Gregg, much more firm and less juicy, but sweet and pleasant flavored; they are indeed *solid*, and seem hard enough to carry to Liverpool without injury. The canes are strong, healthy thus far, and prolific.

*Souhegan.* A black cap from New England, that so far seems to be hardy and productive, and that ripens its fruit early. The berries are not as large as Gregg, yet of good size, sweet and richly flavored.

*Superb*, and if one may judge from the first fruiting on newly planted canes it is *superb*. The berries are large, roundish oval, rich carmine color, of excellent flavor, and apparently ripen early. We shall watch this variety with much interest, and hope to be permitted to inform our readers of its behavior another season.

*Thwack.* We have been disappointed in this variety. On sandy loam it has not been prolific, and the quality of the fruit is poor. We have failed to see in it any good qualities that should induce any one to plant it; perhaps on some other soil it might do better.

*Turner.* This is the variety that Mr. Parker Earle, President of the Mississippi Valley Horticultural Society, grows so extensively on his small-fruit farm near Cobden, Illinois. He has found it a very profitable and satisfactory market variety. The colored plate which we present to our readers with this number is a representation of this variety, which we have found to endure our winters pretty well, to yield good crops, and to have a very sweet, agreeable flavor. It throws up suckers very freely, too freely, which must be cut off with the hoe as if weeds in order to secure good crops of fruit.

*Tyler.* An early ripening black cap. For our part we can not see enough difference in the time of ripening of this and Hopkins, and Souhegan to make a distinction; nor in the short time that we have had them in cultivation have we been able to ascertain what are the particular points in any one of the three to give it any very decided advantage over the others.

We have said nothing of *Lost Rubies*, for the simple reason that in our experience of its performances we can find in it no particular excellencies that should rescue it from oblivion; it might have remained *lost* for ever and the consumers and the growers of raspberries would have experienced no loss whatever. Mr. Green writes to us that this variety is very productive when planted near Turner or Kirtland to fertilize it, but does not do so well when planted near Cuthbert, and concludes by saying that this is a great

drawback, which will prevent it from becoming popular.

#### MORE ABOUT NEW STRAWBERRIES.

BY T. C. ROBINSON, OWEN SOUND.

The *Manchester* has fruited with me this year, and I find it very fine indeed—for certain purposes. I do not think it good enough for home use, to be eaten directly from the vines; but I think it is of better quality than Wilson or Crescent, picked as these usually are for market; and its other points as a market fruit are so good that, with the single exception of firmness, it appears to realize to a remarkable degree the claims that were made for it. In firmness I place it behind the Wilson, yet it will no doubt ship a hundred miles or more by rail. Potted plants that I set out late last August have yielded over a pint each on the average, and the berries were much larger than I expected, very regular in shape, very glossy, smooth and handsome—decidedly late. I also saw it fruiting near St. Mary's, Ont., and near Rochester, and at both places the above characteristics were equally prominent. Everywhere, too, it was showing fine vigorous growth. My verdict on this variety is, "Best tested late market sort, for shipping less than one hundred miles." It does well on light land.

The *James Vick* is another variety that is standing well up to the claims made for it. At Rochester and St. Mary's it shows the same remarkably healthy and vigorous growth that I see on my own grounds, and it certainly is exceedingly productive. Yet I cannot recommend even the James Vick for home use at present. I have little doubt that as a cooking fruit it may prove very valuable for home use; but we have already excellent varieties that fill this bill exactly; and the "home berry" that the people are in

need of is one that in addition to other good qualities possesses size and excellent flavor. Now, the James Vick is not of extra size, and its quality strikes me as nothing better than common varieties. But for the market-grower, who wants a berry firm enough to stand the jolting and heat of a two or three hundred-mile trip on the cars, the James Vick seems to be exceedingly desirable, for it is one of the firmest berries in the catalogues—excelling even Wilson in this respect. But firmness is only one essential of a market berry; we want handsome appearance, good size, and especially great productiveness; and these points seem combined in the Vick to a remarkable degree. In color it is exceedingly fine—a brilliant red, to which a shade of orange is imparted by its golden seeds. Shape, almost round, and almost as regular as if run in a mould, though of course the last berries are not as large as the first—apparently less than five per cent. being in any way deformed. Surface smooth and shining. Size, about like Wilson, or a trifle larger. Productiveness, just as great as any plant can stand without coming out of the ground. As a shipping berry for market it appears not excelled by Wilson in any respect, while in the matter of color alone it is considerably better, and it excels in others. On the whole, it impresses me as the best shipping berry to supersede the Wilson that has yet been introduced.

*Bidwell* has done nobly with me this year. The first berries ripened in the wet, and were ugly, overgrown, green-tipped expressions of acidity. But when our impatience to taste the *Bidwell* slackened, and they got more sunshine, not only did the tips ripen up, but they developed a delicious, racy sweetness of taste that delighted all who got at them, while the shape improved to the ideal form; and in color and glossi-

ness they were all that could be desired. Yet they were not up to the mark in firmness, and I do not recommend them for shipping far. Only on rich, dark loam do I think the plant will mature the immense load of fruit it sets, though the plant is a good grower anywhere. It is nearly as large as *Sharpless*. Plant for home use or a near market on good moist loam.

*Lacon* was very promising as I saw it at Rochester; and *Daniel Boone* and *Mrs. Garfield* at St. Mary's. Time will have much to tell about these. I predict a promising future.

For home use I have been delighted with *Shirts*. It is exceedingly sweet and good—surpassing even *Bidwell*—with the flavor of the wild strawberry, and the size and almost the productiveness of the *Bidwell*. It makes the most vigorous young plants of any sort on my place, and grows magnificent hills, which are easy to keep in order as it sends out few runners. Color dark and season late. *Jersey Queen* and *Triple Crown* were the only varieties on my place that could compare with *Shirts* in quality, except *Triumph de Gaul*. The *Triple Crown* is very productive, and it is very firm, while the *Jersey Queen* is very large and glossy, but not sufficiently tested with me as to productiveness.

*Seneca Queen* keeps up its reputation with me as a magnificent early berry for home use—excelled only by *Bidwell* where *Bidwell* succeeds, but seemingly adapted to a wider range of soil.

The above seem by far the best among the new sorts that have been out long enough to test.

Of old sorts, *Sharpless* still stands first in size, but when it is so large it is not so sweet as when of moderate dimensions; it is certainly worthy of a place yet in the home garden. *Windsor Chief* is also very fine.



## FOUNTAIN PUMP.

REPLY TO MR. STRAUCHON.

MR. EDITOR,—In the June number of the *Horticulturist* there is an enquiry by Geo. Strauchon as to a good cheap fountain pump for spraying fruit trees. I have used for the last two years the fountain pump manufactured by Josiah A. Whitman, Providence, Rhode Island, and find it an exceedingly handy, portable and efficient article. It can be had, I think, duty and express charges paid, for about \$5. I have not yet tried it on the codlin moth, but think that with its help I have effectually checkmated the "little Turk." After three applications (one a week) of Paris green water (one teaspoonful to a pail) my apricots are now as large as plums, and not a mark upon them; and with close searching I have been able to find but two plums stung by the curculio in the ten trees which constitute my plum orchard. In by-gone seasons by this time plums and apricots were falling in perfect showers, notwithstanding daily jarring of the trees, and very few of either fruits eventually escaped. The exceptions then were indeed *rari nantes*. I might just add that I have found Mr. Whitman a straightforward and honorable man to deal with.

Yours, &amp;c.,

C. R. MATTHEW.

St Stephen's Parsonage, Goderich Township.

PRUNING RASPBERRIES.—A. F. Hofer says in the *Iowa Register*, in reference to the raspberry: "Feeble canes will bear feeble fruit, and even the strong and thrifty bush will bear inferior berries, if you let the whole cane stand as it is. Spring pruning is needed, and if you cut off your cane about one-third on top, you will raise more and better berries than if you let the whole cane stand as it is. The berries growing on the extreme ends of the branches, running out from the main stems, are always small and tasteless."

## THE CLIANTHUS.

This plant, known as the "Glory Pea" of New Holland, though usually considered of somewhat difficult culture, may be easily grown if care is taken not to give too much water when young. The seeds vegetate freely, grow rapidly, then suddenly the young plants wither. If the cause is sought, it will be found that they have rotted, or "damped off," as gardeners say, just at the collar of the plant. If this can be prevented, and there is no real difficulty, the culture is very easy. The plant is a native of dry, sandy plains, and never at any period of its growth requires much surface water. The roots are long and bare, and will strike down and draw the necessary moisture from below.

Of the beauty of the plant no description can give an idea, and even the highest colored illustrations cannot exaggerate its brilliancy. The foliage is rather large, compound and vetch-like, well covering the plant, and showy. The flowers are in pendent clusters, each individual being about three inches long; they are pea-shaped, and usually of a rich scarlet color.

The seeds should be sown in rather sandy soil, in pots or in a frame, in April. If in the latter, however, it must be where the plants are to bloom, as they cannot be transplanted successfully; or they may be sown in the open border, after the ground has become warm, about the last of May. In border-culture, the essential point to be observed is that, while the plants require an abundance of water during the growing season, the utmost care is necessary to keep the neck of the stem entirely dry. When the seedlings are very small, pot each separately, or, better still, plant but one seed in each pot, and as the plants grow shift into larger pots. Never water over-head, or wet the foliage, and if the surface is

watered put a little sand round the collar of the plant. We have been most successful by not giving any surface water; but, instead, setting the pots in a pan of water, and thus supplying moisture to the root. As soon as the stem of the plant becomes woody, which it quickly does, no further care is needed.

If one can get *Clianthus* safely through the first few weeks of their growth, they are as easily grown as any plant. Set the plants out in a dry, warm, sunny spot in the garden, about the first of June. They will make bushes two to three feet in height, and be covered with splendid flowers until killed by the frost. In the greenhouse they do not thrive, as they are more subject to the attacks of red spiders than any plant, and do not like the syringing necessary to destroy that pest.

The oldest species is *C. puniceus*, which is a very showy plant; but the newer, *C. Dampieri*, far surpasses it, having larger flowers of a richer scarlet, which have a large, shining, intense black mark at the base of the petals. Of this latter species there is a variety with white flowers, somewhat varied with pink, and with the same black marking, which is very pretty, although less showy.

Let no one be deterred from planting *Clianthus* because it is "hard to grow." The only care is to avoid over-watering in the early stages of growth; otherwise the plant is of as easy culture as any other of the Bean family.—R. S. E. in *American Garden*.

**RUSSIAN MULBERRY.**—The Russian Mulberry has recently taken a prominent place, and owing to its hardiness and rapid growth, is in active demand for the Northern and Western States. It produces an abundance of excellent fruit, which would fully pay for all labor expended in its cultivation.—*Am. Silk and Fruit Culturist*.

## LARGE STRAWBERRIES AND THEIR FLAVOR.

We have had some huge Strawberries from Mr. Gilbert (Paxtons) which were remarkably well grown and perfectly colored. Better grown they could not be, in fact; and yet the flavour, in our opinion, left something to be desired. The Strawberry is one of those things as regards which flavour is to some extent sacrificed to appearance. All who grow fruit for their own tables would do well to ask if we cannot get better flavoured fruits than those grown for the markets. Qualities which enable a market grower to carry his fruit to a place of sale are of no consequence whatever to the private grower, who should above all grow fruit for its flavour. The wholesomeness and pleasure of eating a Strawberry have very much diminished by the poor quality of many kinds. We should raise and raise fruits till we get really good ones. This plant is so easily raised from seed, and comes into bearing so quickly, that there should be no trouble in the smallest garden in trying a few experiments until the owner found a kind that suited him in flavour. It is quite common to find fruits most unwholesome by the acid they contain. There should be a revolt carried on by all owners of gardens against the ever-growing practice of sending out new kinds because they are bigger than older ones. It generally means that they are coarser; it sometimes means that they are useless. Imagine anyone growing a Kidney Bean because it was large, seeking the very quality that all avoid who have to cook or eat it. It is a delusion that those who grow their own fruits and vegetables necessarily pay more for them than they do in the market. The pleasure of having them quite fresh and of a proper age would, however, be worth paying more for were it needed. This great advantage, which all who are

happy enough to live in their gardens enjoy, might be greatly increased as follows: By a new departure, seeking and growing only things delicate and good in flavour. To grow such and gather them at the right moment, which is never done in the case of market produce, would be to experience a difference not merely in degree, but of kind. Green Peas, for example, grown thus and gathered thus would scarcely be thought of the same species as the common full-grown market "bullet."—*The Gardener*.

#### DRIED FRUITS MARKET.

Our market abroad for dried fruits is extending every year. We have referred to it frequently, but it can hardly be mentioned too often, and the following from the *Germantown Telegraph* is therefore in order. "It is a mistake among farmers and fruit-raisers in the United States to think that the different varieties of fruit, such as apples, pears, peaches, plums, cherries, gooseberries, etc., are grown in Europe in greater perfection than here. It is not the fact. We raise these as abundantly here, and in as much perfection, as they do in Europe, and with not more than half the labor and expense. We have not a doubt that the United States, ere many years, will become the greatest fruit-raising country in the world. In dried fruits, such as peaches and apples, the exportation has already acquired large proportions, and in ten years more it will go on multiplying in extent until fruit-raising will become a far greater and more profitable branch of industry than at present. With such a market as we find in Europe open to us we can never grow an over-abundance of apples and peaches; while these, in addition to cranberries, in their natural condition, fresh from the trees and vines, ought to be, and no doubt will be,

produced in such quantities as to meet any demand. The very cheapness that we can send them abroad for will open for us an unlimited market for all with which we can supply it."—*Press*.

#### ROSES PEGGED DOWN.

Each succeeding year this method of growing roses has an increased number of adherents. Those who give it a trial soon discover the advantages which it possesses. Not only does it produce a larger quantity of well developed flowers than the ordinary bush system, but in the case of perpetual flowering varieties a better succession is kept up. This latter, I find, can be secured by allowing the shoots to remain in an erect position after they have been shortened to the required length until they have broken and the young growths have attained a length of 4 inches or 5 inches, instead of pegging them down as soon as they have been pruned; when left for a time erect in this manner, they do not at once push growth the whole length of the shoots retained, in the way that occurs when immediately pegged down to a horizontal position, but break some four or half a dozen of the eyes at the points. When these have grown a few inches, as already stated, and the shoots are then pegged horizontally, it has the effect of causing the lower unbroken eyes to move and to come on three or four weeks later than those nearer the extremity, yielding quantities of fine flowers during the interval between the first bloom of the leading shoots and their successional flowering. In this way there is so much less gap in the blooming, which, it is needless to say, is a gain with those who grow Roses for ordinary purposes. One great advantage in the case of the pegging-down system is that there is no bare ground; all is covered so thickly that very few weeds appear, and in

dry weather the foliage lessens evaporation, thus reducing the quantity of water needed to keep mildew in check, as this injurious parasite in a great measure owes its presence to insufficient root moisture.—*The Garden.*

#### HINTS ON LAWN MAKING.

In making a lawn now, as at any other season, it is well to recollect that the work is to be done for many years, and that in no part of the grounds will thorough preparation, deep tilling of the soil, and abundant fertilizing, pay better than here. In a lawn of considerable extent, it is a mistake to suppose that it is necessary to reduce the surface to a dead level. For small grass plots, on small places, this may be desirable, but a large lawn appears to much better advantage if the surface is gently undulating. Various mixtures of seed are offered by the seedsmen. Some of these seem to be well considered, but anything more unsuited to our climate than the "French Lawn Grass" can not be imagined. Probably not a third of the kinds of grass it is said to contain will survive in our climate. The best lawns we ever had were sown with "Kentucky Blue-grass" and "Rhode Island Bent" (a variety of Red-top), in both cases a small amount of "White Clover" was added. For strong soils the former, for light and sandy ones the latter will no doubt give satisfaction. In buying grass seed for a lawn, look well to its quality. Some seed of "Kentucky Blue-grass" (the same as "June Grass") sells for twice the price of others, and is worth four times as much. Chaff does not always cover seed, and the samples should be carefully inspected. The advice to use from three to eight bushels of seed to the acre is founded upon the uncertain quality of the seed. Probably four bushels of fairly good seed would be ample. The seed should be

divided into two or four equal portions, and the sowing made, after thoroughly preparing the soil, in different directions. The seed may be brushed in, but at this season a good rolling will give a sufficient covering. Where the lawn borders on roads or paths, or on shrubbery or other plantations, it will be best to lay a margin of turf six inches or more in width. For small areas, the laying of sods is advisable, and this may be done now as well as in spring. In most localities, a common, or the road-sides, will usually afford a fine, close turf. The soil in this case should be as thoroughly prepared as for seeding, and the turf well beaten down to bring its roots in close contact with the soil. If necessary to cover steep banks, sods must be used. These may be held in place by the use of pins; plasterer's lath split is best. These will decay by the time the sod becomes well established.—*American Agriculturist.*

#### A GOOD PLUM CROP.

I used carbolic acid and soapsuds on my plum trees last spring, with perfect success. The curculio invariably takes the plum. Here trees are loaded with fruit, but fall to the ground before they ripen. I used one large spoonful of crude carbolic acid to one wooden bucketful of soapsuds, stirring it thoroughly and then dashing it up through the tree with a tin cup. I did this early in the morning, twice a week, commencing as soon as the blossoms begin to fall, and continued until the fruit was about half grown. They were of the Lombard variety. The trees were loaded with fruit. The first that ripened were somewhat imperfect and wormy. I also picked from two trees one wooden bucketful that was entirely rotten, after which they ripened nicely; were entirely free from worms or other blemish. I picked six wooden bucketfuls of fruit from those two trees, and they were deli-

cious. No birds or anything to disturb it while ripening. Well yes, it tempted the children.—C. PARANTEON, in *Fruit Recorder*.

#### A PROMISING WINTER APPLE.

Prof. J. L. Budd, of the Iowa Agricultural College, says, in referring to a new apple: "Scions and trees of an apple known as Belle de Boskoop have been distributed from the college. While far hardier and longer-lived than Ben Davis, it will not probably prove hardy enough in all parts of the north, as like the Alexander it is only a half blood Russian. Taking it all in all it is, as Charles Downing says, the most promising variety for the parts where it will prove hardy of any on our experimental list. In Eastern France, where the standard of quality is high, Simon Louis, of the great orchards and nurseries at Metz says, 'In our opinion the Belle de Boskoop is one of the most beautiful and in quality the best for table use at the close of winter.' It is equally a favorite over a large portion of Central Europe as far north as Northern Silesia, Hungary, Bohemia, and Poland. It does not bear quite as early as Ben Davis, but no variety has a better record for regular crops of even sized fruit. At this time we need an apple of fine appearance and high quality to take the place of the overgrown Ben Davis, which, aside from its low quality, is proving too short-lived in tree. I append Charles Downing's description of the fruit, whose guarded expression in relation to new fruits is well known: 'Tree vigorous spreading, comes into bearing moderately early, and produces abundantly, alternate years, of fair fruit, good size, very good quality; keeps well and is a promising variety. Fruit medium to large, roundish oblate, skin yellow, shaded with light and dark red over nearly the whole surface, some specimens more or

less mixed with russet; basin large, round, deep, slightly corrugated, flesh a little coarse, crisp, tender, juicy, brisk, sub-acid, rich, and of very good quality; core small and close, season February to April.'

"With us the apples are brighter colored than in New York and will average on young trees larger than described. At the college, which is in all respects a trying situation, I have not known it to fail to start from the terminal buds even during our recent test winters. I hope our nurserymen will propagate this variety." — *Prairie Farmer*.

#### THE GRAPE VINE PLUME.

A caterpillar with a very long name (*Pterophorus periscelidactylus*) works in an interesting manner upon the grape vines. About the time the third cluster is forming on a vigorous shoot the young leaves at the extremity may be found fastened together, making a cavity, in which one or more caterpillars find a retreat. The mature insect is a moth of a tawny yellow color, with a very rapid flight. The wings are split up into feather-like lobes, and on this account the insect is known as the Grape Vine Plume. The larvæ hatch soon after the grape leaves begin to expand. At first the caterpillars are nearly smooth, but after each change of skin the hairs become larger and more numerous. They feed for about a month upon the tender grape leaves, and then, fastening themselves by the hind legs to the under-side of leaves, etc., they change into the inactive or pupa state. A second brood is not known, but if there is one, it can do but little injury.

The method of treatment is haul-picking. The part attacked should usually be removed in the summer pruning or pinching, and therefore the

Plume is not very destructive. Sometimes the third cluster of grapes is included in the fold of leaves and silken threads, and if this is to be preserved, care must be taken in removing the unsightly twisted tips of the infested branches.—*American Agriculturist for August.*

This insect will be found in President Saunders' work at page 268, by the name of Gartered Plume Moth.

#### REFRIGERATOR CARS.

At the annual convention of the Master Car Builders' Association, held in Chicago in June last, a committee reported on refrigerator cars after an examination of the productions of thirteen different builders, the cars costing from \$600 to \$1,200 each. The committee said :

"There are now before the public three kinds of refrigerator cars. The first is a car built on the supposition that all that is needed is a cool temperature. These cars are built on the principle of an ice lined box, with the ends, sides, and roof fitted with ice boxes, no arrangement having been made for the circulation of air or absorption of moisture. The second kind of car is that which provides a cool temperature, and also a circulation of air. The third kind is that which provides a cold temperature and a constant circulation of air that is pure and dry. Your committee are of the opinion that the last named car meets the want of carrying perishable lading. To make a refrigerator car what it ought to be, it is our opinion that there should be a circulation of dry, pure air; the ice boxes should be exposed on all sides to the car, thus getting the cold radiation from them and allowing the air to circulate freely around them; the drainage should be perfect, so that the water would not slop over and spoil the freight; the cooling properties of the water should be utilized before escaping from the car. We think that the car should be built longer than the ordinary box car, so that after taking up space for the ice chambers, etc., there would still be

room for a full car load of freight. We would also say that the insulation should be as nearly perfect as possible."—*Scientific American.*

#### EXPERIMENTS WITH TOMATOES.

Many growers suppose that to have the Tomato bear early it must be planted on poor soil, and only fertilized in the hill. My experience has been just the reverse, and convinces me that the richer the soil if warm and light—the earlier the fruit. Rich soil undoubtedly increases the growth of stalk and leaf at the expense of the crop, but this otherwise wasted vitality is, by proper pruning, readily transformed into a tendency for earlier maturity.

To fully test this point, on the 20th of March, 1882, four varieties were sown. For the earliest Acme and Perfection were chosen; for the latest, Trophy and Paragon. The ground was of medium quality, thoroughly broken to a depth of ten inches, and worked until it became fine and mellow. It was then marked off in rows four feet apart; every three feet in the row a shovelful of composted manure was placed, well worked into the soil, and the plants set out in the center of these hills. In this way five rows were planted, two of them containing all four varieties, in such a way as to give a fair test.

The five rows were cultivated every three days, weather permitting, and the two containing all the varieties, after being set two weeks, were heavily topped with well-kept hen manure, thoroughly mixed with the soil. All laterals or suckers were trimmed off, and at the third pruning one row was left to itself and not pruned any more during the rest of the season. Two of the five rows were only topped above the third cluster of blooms. With the exception of the row which had been

pruned but twice, and half of another, all the vines were staked.

Now, as to the results. In the two rows which had been topped, the fruit was larger than in the others, and ripened fully four days earlier. Ripe fruit was taken from the four varieties on the same day, and fifteen days in advance of those of my neighbors. The half row which was not staked did not produce as fine fruit as the rows that were; and the plants which were pruned but twice bore the poorest fruit of all, and rotted badly, but kept green longer, and bore later than any. Lifting the vines did not appear to be of any advantage.—THOS. D. BAIRD, in *American Garden*.

#### CATTLE IN STREETS.

A Burlington, Iowa, correspondent says: "We are still outraged in this town with roaming cattle, horses and geese. Why is it that I never see any articles in the horticultural and agricultural papers in reference to this roaming at large of stock? Why will people spend so much money for fencing out stock, instead of the owners fencing their animals in, or herding them? Millions of dollars spent for fencing, and lawsuits in reference to this relic of barbarism; consequently not much money is left for beautifying and improving the roads and streets. In journeying through life many a person wonders at the general 'cussedness' surrounding us all, in one shape or another."

When we say that this strong language is from the pen of a gentle lady, the reader will understand how badly she feels about this degrading and disgusting nuisance. It is amazing not only that the press is generally silent on this outrage; and further, we have wondered that local agricultural societies do not protest against it.—*Gardener's Monthly*.

#### THE ATLANTIC STRAWBERRY.

A wise man said that "of making many books there is no end, and much study is a weariness to the flesh." Had Solomon lived in our day and been editor of a horticultural periodical, trying to keep up with the introduction of new fruits, and to be able to give his readers an intelligent opinion, probably he would have burst out with the exclamation, "of making many sorts of strawberries there is no end, and the finding out of their real merits is a weariness to both flesh and spirit." Friends, can you not pause in this business? Really this is piling on the agony. We have been roused by the advent of the Bidwell, astounded by the wonders of the Manchester, thunderstruck by the claims of the James Vick, and now we stand bewildered, half dazed, with reeling senses before the wonderful qualities of this new strawberry, which has already overpowered a large body of horticulturists, and is destined to—do what? Probably, judging from the history of many another, figure in our horticultural literature for a day, and then pass to that bourne from which no traveller returns.

But this is what they say of it:—

"The strawberry novelty of the season is the Atlantic Like the Manchester, it originated in a soil of sea sand, but unlike that variety it has perfect blossoms. While it is believed to be a good berry for the home garden (and owing to the vigorous and sturdy qualities of plant, will succeed over a wide range of country), it is of especial value for market; owing to its superior firmness, beauty, productiveness, and lateness. In quality it is more than good, its keeping properties something remarkable. At a large gathering of horticulturists held on the grounds of the originator, June 12th, to inspect the berry, all united in pronouncing it an exceedingly fine berry, and a variety of eminent promise. The commission merchant who sold the fruit stated it had

commanded from twenty to twenty-five cents per quart wholesale in New York market, and I have since been informed that the lowest price realized for it during the season was eighteen cents per quart. As evidence of its value as a market berry these figures certainly count for more than a volume of words."—*Farm and Garden*.

#### IMPROVED FRUIT EVAPORATOR.

This apparatus, patented by Mr. William H. Reed, of Cliffdale, Ill., consists of a reel adapted to receive in its double arms a series of fruit crates, the reel being supported on a shaft in a heating chamber, and rotated so as to bring the crates successively over the heater and to create a current of air which rapidly carries off the moisture from the fruit. The heating chamber is fitted with a ventilator at the top, and air inlets at the sides, about the shaft. The bottom of the furnace at the sides is filled in with fire-resisting clay to carry the heat of the furnace directly up to the reel without great loss by radiation. There are air supply openings with dampers at the lower part of the heating chamber for supplying the amount of air required.

The chamber may be heated in various ways, either by a furnace, or by means of a stove, or by steam. The crates which fit into the radial arms are provided with wire gauze sides, so that the air has access to all sides of the fruit as it is carried around by the reel.

The capacity of this machine may be increased by extending the shaft and adding sections to the reel. In this case the sections are geared so that any one may be stopped or revolved without interfering with the others.

This evaporator is very rapid in its operation, and produces uniform evaporation without shifting the crates, and without special attention. The reel is

revolved by suitable power or by hand.  
— *Scientific American*.

#### CHERRIES.

The severe cold weather of last winter injured my Cherry trees, some of them severely. The old Morellos are the only ones that did not suffer. The branches of the others are killed for a distance of from one to two feet from the extremities. It is the first instance of the kind I have met with. Apples, Pears, Plums, and especially Peaches, succumb to the winters of this latitude (exactly on the fortieth parallel) but my cherries were never before injured by frost. They are upon rather high and dry ground. The lowest temperature which I noticed during the winter was twenty-eight degrees below zero. The thermometer stood at that several mornings, and for six weeks it rarely rose above zero. Several times during my residence here the mercury has sunk to twenty-six or twenty-eight degrees below zero; but it was for only a short time. Was it the long continuance rather than the severity of the cold which killed the trees? Other fruit trees in my orchards suffered much.

Those parts of the branches not killed are full of bloom, and appear to be full of vitality. The trunks are not at all injured; at least, it is not apparent if they are.

The cherry is the only fruit tree which I can recommend for shade. The tramping of stock injures all others, but it has no effect upon the hardier Cherries. They can also be planted along road-ways and paths where the passing of vehicles and animals would prove injurious to other trees. The orchardist will find this quality of the Cherry quite valuable and important, for he can plant it along the drives between his orchards.

I believe that, as a general thing,



Cherries do not receive that attention which they should. They certainly do not receive the care bestowed upon Apples, Peaches, or Plums. Like Top-sy, they just grow. Orchardists are very careful in the selection of varieties of Apples, Peaches, etc.; they prune the trees and guard against enemies, and stir and fertilize the ground. Yet very few Cherry trees receive this attention. The selection of varieties is often a matter of chance. Horticultural societies give lists of best varieties of nearly every other fruit quite frequently, but lists of Cherries are remarkable for their scarcity. A Cherry tree is stuck indifferently into the ground, and rarely pruned or manured. Yet no tree is more grateful for attention, or expresses its gratitude in a more substantial way.

The earliest Cherries are the most profitable. The first in the market bring the highest price. The earliest ripened of the early varieties are nearly worth their weight in silver. The man, therefore, that has the first ripe Cherries to sell will get the largest profits. The bloom will open earliest on trees standing on a southern slope. The rays of the sun, falling most directly upon ground sloping towards the south, will warm it earlier in the spring than ground upon which the rays fall obliquely; and the sooner the sun warms the ground the sooner the blossoms will wake to life. And from blossom to mature fruit the successive stages of development will be most rapid on the warmer soil; so that a southern slope will secure the earliest Cherries. But this entails a risk. The blossom-buds may expand too soon. Always in spring, warm and cold weather alternate for a few weeks. This period proves most destructive to the hopes of the fruit grower. The buds will lie secure and unharmed in a casing of ice during midwinter, but in the spring,

after a few warm days have made them swell, a slight frost may greatly injure them. If the Cherry grower plants his trees on a southern exposure he may overdo matters and have no early Cherries at all. My plan is to risk some trees on southern slopes, and plant the rest on high, dry ground, sloping to the north.

Cherries, both tree and fruit, have few enemies. In this they clearly have an advantage over other fruits. I would not unnecessarily draw invidious distinctions, but a proper recognition of this fact will add materially to the estimation in which Cherries are held. The only enemy of the fruit that has proved troublesome to me is the red-headed wood-pecker.

The Cherry is generally undervalued. Of our commoner orchard fruits it ranks among the highest in hardiness and fruitfulness; requires little care, and less protection from enemies; is really a luscious fruit, beautiful to look upon, and more pleasing to the palate than the eye, and loses none of its good qualities by being stewed, dried, preserved or canned.—JOHN M STAILL, in *American Garden*.

#### LIMA BEANS.

This year I have tried a new plan with Lima beans. I have always planted them in rows four feet apart and the hills two feet apart in the row, setting a stake or pole and then planting four or five beans around them, manuring in the hill.

This year I run a deep furrow with a plow, then put a liberal supply of manure and worked the soil back into the furrow, mixing as thoroughly as possible with manure. I then planted my beans about 4 inches apart in the row, and the rows  $3\frac{1}{2}$  feet apart. When they were up well, I stuck them the same as peas, only using longer and

heavier brush. When they reached the top of these I pinched off the running shoots, and find the beans do better. I find I can raise more beans on the same amount of ground and have less ground to hoe over that has nothing on it. I only tried the plan on a small scale this year, but shall plant my whole crop after that plan next year. Some prefer turning the eyes of the seed down when planting.—*Farm and Garden.*

#### THE MARLBORO' RASPBERRY.

This promising variety has recently been sold in shares to different nurserymen, in various parts of the country. We have 133 plants growing on our grounds. Who the shareholders are, we are not informed, but will be glad to hear from any of them regarding the success of the variety in their locality. We propose to give the Marlboro' a fair test, and will report its conduct without prejudice or favor. This is a novel method of introducing a new variety, and we are inclined to favor the plan. It gives the variety an opportunity to be tested in different localities before being sent out, and throws the responsibility upon the shareholders, who are now the persons to decide whether the Marlboro' has merits, and what its merits are. If it shall prove not to be superior to those already known the shareholders who send it out with great claims will alone be deemed guilty. The originator is now simply a shareholder the same as the others, and has no more responsibility than they. We know actually nothing of this berry except that the plants exhibit great vigor, but from reports of people who have seen it, and have it growing, we deem it exceedingly promising. On the grounds of the *Rural New Yorker*, Mr. Carman reports it hardly so far, and of vigorous growth. If I recollect aright Mr. Carman has said that the fruit he saw of it was of the largest size, and of

fine quality. (I make this statement only from memory—not a very safe thing to do.) Mr. Caywood had several opportunities to sell his entire right in the Marlboro' at high figures (\$4,000 in one instance we are told) but preferred the present method. That experienced nurserymen should be found willing to pay \$100 cash for a twelve quart pail full of Marlboro' plants, without its having been puffed or advertised, would seem to indicate that they have confidence in its promises.—*GREEN'S Fruit Grower.*

#### MANAGEMENT OF GRAPE VINES.

Grapes first coming in bearing should not be permitted to perfect large crops of fruit while young. It is excusable to fruit a bunch or so on a young vine, "just to test the kind," but no more should be permitted till the vine has age and strength. Vigorous growth and great productiveness are the antipodes of the vegetable world. Encourage as much foliage as possible on the vines, and aim to have as strong shoots at the base as at the top of the cane. This can be done by pinching out the points of the strong shoots after they have made a growth of five or six leaves. This will make the weak ones grow stronger. Young vines grow much faster over a twiggy branch, stuck in for support, than over a straight stick, as a trellis, and generally do better every way. Where extra fine bunches are desired, pinch back the shoot bearing it to about four or five leaves above the bunch. This should not be done indiscriminately with all the bunches. Too much pinching and stopping injures the production of good wood for next season. These hints are for amateurs who have a few vines on trellises; for large vineyard culture, though the same principles hold good as far as they go they will vary in their application.—*Gardener's Monthly.*

## PLANTING TREES IN THE FALL.

I had my attention aroused last fall by the unusual trade in fruit trees. It was more general than in any previous fall within my recollection, and much more even than last spring. It is but a few years since nurserymen induced farmers to purchase stock for fall setting, but the practice now seems to have grown in favor with farmers generally. They only needed to ascertain that the fall is really the most convenient season for such work, in order to attend to it at that season. The trouble with spring planting is that the trees come when the farmer cannot well spare the time to attend to them. Perhaps there is a job on hand which must be finished before anything else can be attended to; the weather is warm, with drying winds, and every hour that the trees are out of the ground they suffer. When the trees are set in the fall the soil settles and fills the interstices around the roots, and the soil in the immediate vicinity of the trees becomes less susceptible to the effects of drouth.

Again, the farmer has more time to do this job, in the way it should be done, in the fall. Too much care cannot be expended in procuring and setting trees. Opinions in regard to varieties may differ, but when it comes to caring for the trees, there is only one way to do it. Too many farmers are quite apt to forget that a tree has a life and a constitution; that carelessness may destroy the one and impair the other. I think that nurserymen should be very particular in the men they employ to take up trees. I have seen so many trees injured in this respect, that I think it requires as much care to take up a tree as it does to set it out again. Strength is not the best recommendation of a man for taking up trees; neither is a faculty for handling a spade the principal accomplishment of a man employed to set out trees. Perhaps in

no other job on the farm does skill pay as well, inasmuch as unskilled labor will work so great a loss. It requires two men to set out trees to any advantage, and three are better than two. It is better to have the holes dug, and a bushel of good muck left at each hole, before commencing to set out trees.

Right here I most earnestly deprecate the post-hole style of digging holes for apple trees. A job that is worth doing at all, is worth doing well, and the roots of growing trees should have plenty of room. The hole should be dug both deeper and wider than is required, in order that a quantity of muck may be put in the bottom, and it should be dug wider on general principles. In setting out trees, when I come upon one which has been mutilated in taking up, I prefer throwing it aside and losing it at once, rather than await the doubtful result of setting it out. In setting out trees avoid placing any of the roots in a constrained position. The roots should be placed naturally, and the fine earth pressed firmly around them. With care, no one should lose one tree in one hundred, providing the trees were all right when delivered. Taking all things into consideration, I would much rather set trees in the fall than in the spring.—F. K. MORELAND, in *Country Gentleman*.

## THE BARK LOUSE.

Herbert Osborn, of the Iowa Agricultural College, recommends as remedies for the scurvy bark louse and the oyster shell louse, kerosene and soap. The kerosene may be used pure where it can be done with safety, but ordinarily it must be diluted with water. This may be accomplished by forming an emulsion of kerosene and milk (skimmed milk answers well) and then diluting with about an equal quantity of water, or by shaking up a mixture of milk, kerosene and water in equal parts,

and then adding more water, taking care not to add so much as to cause the mixture to separate. Sprinkle or spray it upon the infested twigs and branches. Soap is an excellent remedy. Make a solution of whale oil soap, one-fourth of a pound of soap to a gallon of water, and apply to the infected parts of the tree, repeating the application after a few days. Lye is said to have been used with good success, but is considered unequal to soap.—*Michigan Farmer*.

#### PROGRESS OF COTTON SEED OIL MANUFACTURE.

Among other interesting statements by Professor Goode, United States Commissioner to the International Fisheries Exhibition, was one that the "sardine" manufacture of Maine was of a yearly value of \$825,000, the sardines being young herrings packed in cotton seed oil. At the Cotton Seed Crushers' Convention held in Chicago, June 26, 27, and 28, the president stated that there were 85 cotton seed mills in operation in this country, crushing, the last season, 554,600 tons of seed, and there were exported an average of nearly 13,000 barrels of oil yearly, each barrel having a capacity of forty-five gallons. On account of the complaints of olive oil makers in Spain, the Spanish government had imposed a duty that renders the shipment of cotton seed oil to that country unprofitable. In this country cotton seed oil is largely used for cooking purposes, taking the place of lard. It is known as "olive butter," although no attempt at concealing its actual character is made. At the convention a physician and chemist of Chicago exhibited specimens of cotton seed oil which had been deprived of its natural gluten and paraffine, and was equal to the best lubricating oil, having been tested on sewing machines and on watches. The commercial, domestic, and manufacturing value of cotton seed is

rapidly increasing. In 1876 there were only twenty-four crushing mills running in this country; now there are eighty-five, and next season there are to be one hundred and ten, even if the number of those now projected should not be increased.—*Scientific American*.

#### THE AMERICAN POMOLOGICAL SOCIETY.

The American Pomological Society holds its nineteenth session at Philadelphia, Pa., commencing on Wednesday, Sept. 12th, 1883, at ten o'clock a. m. All Horticultural, Pomological, Agricultural and other kindred societies, in both the United States and British Provinces, are invited to send delegations as large as they may deem expedient.

The Pennsylvania Horticultural Society will hold its annual exhibition in Horticultural Hall at the time of this meeting.

A limited number of Wilder medals will be awarded to objects of special merit.

It is to be hoped that Canada will be well represented on this occasion.

#### PARIS GREEN ON GRAPE VINES.

We must confess ourselves in being duped this spring by acting too hastily on the experience of others given in the *Country Gentleman*, concerning the destruction of the rose bug, the pest of the grapes. The advice was to get a Johnson's pump and squirt some Paris Green water (the same strength as for potatoe bugs) on the grape vines, and that it would kill the rose bugs on the vines as effectually as the potatoe bug on the potatoe vines. We procured a pump and tried the experiment, the spray being as fine as rain. The first application did not stop the ravages of the bug, so we tried it the second time, result, not a complete extermination of the bug, but an almost complete ex-

termination of the grape blossom, grape and also the leaf. Luckily we had sense enough to try it on only a very few vines, and did not do much mischief.—*The Farmer's Companion*.

#### NEW FRUITS.

##### CRESCENT SEEDLING STRAWBERRY.

A correspondent of the *Country Gentleman*, residing in Belmont County, Ohio, says:—The Crescent has done so well the past unfavorable season (as well as for two years before), that we unhesitatingly claim for it a place in the front rank for market. I had one-eighth of an acre of them last season, and could not boast of the culture or the soil, but it gave me 25 bushels of marketable berries, which chiefly went to Chicago, and sold at wholesale at \$4 to \$6 50 per bushel. My neighbors, with Wilson, C. Downing and other sorts, got only 50 to 75 bushels per acre. Since Crescent has been very highly praised by some, and quite the reverse by others, I will add that when first colored the quality is not first-rate, but let it get fully ripe and there is nothing on the list which has so much of the real strawberry flavor, and I think it is excellent when fully ripe. It carries its size better through the season (in this locality) than Wilson, Chas. Downing, Monarch of the West, &c., which is a great recommendation.

##### CUMBERLAND TRIUMPH STRAWBERRY.

The same gentleman says of this berry:—Cumberland Triumph is also very valuable with us. Many growers claim that it is suitable only for near market, but I have shipped it to Chicago (between 400 and 500 miles), and sold it at wholesale at 30c. per quart, or \$9 60 per bushel. I have also exhibited it alongside of Jucunda, as the best strawberry, size and beauty to rule, and always carried off the prize. I am testing many of the newer varieties,

but do not feel very much in need while the two named above do so well. I also had Glendale and Sharpless fruit in a small way last season, and hope they may do well, but Crescent ripens first and lasts longer than any other.

##### GREGG RASPBERRY.

While on the subject of new fruits, I cannot omit to mention the Gregg Raspberry, which has held so important a position of late years in the culture of this favorite fruit. For late ripening we certainly will not very soon see it superseded. I will still plant Doolittle for early till some of the new ones prove a claim to that position.

#### CULTIVATION OF POTATOES.

It is always well to plant early, as early as possible in our climate, on well prepared soil having good drainage, whether early or late sorts. Properly managed and attended to, the chances are for more moisture and more coolness; and, for safety against the frost and dry weather of spring, put well down in the mellow soil—at least six inches deep, and deeper in sandy loam. This will prevent the seed, however small, from drying out, and sprouting will go on there instead of in the cellar, the tips appearing when the danger from frost is over, and at the time potatoes are usually planted, thus getting a start of weeds, and maturing the crop early, about the middle or latter part of June, before drouth has penetrated deeply. By this time the late sorts will be well established, occupying with their roots and young tubers the lower, cooler soil weeks in advance of the usual planting; and ripening so much the earlier, thus avoiding drouth and frost, which often make serious work with belated potatoes. Deep planting requires deep working and enrichment of the soil, so as to have the seed in rich, mellow ground, not dropped on

the bottom of the furrow on the hard, raw sub-soil, and covered with the plow, as is often done. The roots want to penetrate downward as well as laterally. This puts them beyond the reach of severe drouth. If, in addition, the surface of the soil is kept stirred so as to form a fine mulch, a superior crop is assured every season, if the soil has good drainage so as to carry off the water in a wet season.

The objection to deep planting, that it is more expensive to harvest the crop, holds good as far as the digging is concerned, but it is in no way an offset to the other advantages of a larger, sounder and more uniform crop, take one season with another, drouth having much less effect. The greater freedom from disease, which result is a point that can hardly be overestimated in view of the widespread, unsound condition of the tubers, for there is less chance for rot with deep planting in well-drained soil, the tubers being farther down and better protected—at least there is greater success.—*Country Gentleman*.

#### CRAB APPLES.

When eternal vigilance is the price of an apple orchard, and Jack Frost the most formidable enemy encountered, the Crab Apple is of no small value. The past winter was unusually cold here, injuring even cherry trees, but my Crab Apples escaped unscathed. They are the only fruit trees that were not injured. The Crab Apple not only withstands cold better, but is hardier in every way than the apple, and therefore will commend itself to the orchardist living where the circumstances are not favorable to apples. Though only a crab apple it is a fine fruit. I know of no fruit which makes nicer preserves or jelly. The jelly is as clear as crystal and only too pleasant to the taste.

The trees are incessant bearers; I

have never known them to miss a crop, and a heavy one at that.—*Am. Garden*.

#### THE SOUHEGAN RASPBERRY.

It is a chance seedling, found some ten years ago in the garden of Mr. John A. Carleton, Hillsboro' County, N. H., and from the growth of cane and general appearance of the fruit, he thinks it is a seedling of the Doolittle, but at best this is a mere matter of speculation. It takes its name Souhegan from a small river of that name near where it originated.

The canes are very strong and vigorous, branching quite freely, and well covered with strong, sharp spines, and, so far as I have seen, it is perfectly hardy. In fact, it is the only black cap that was not injured the past very severe winter on our grounds. We fruited about one acre of them the past season in the same field with one-fourth of an acre of Doolittle, set at the same time and given the same care and cultivation. The Souhegan ripened one week in advance of Doolittle; the fruit was a little larger, of jet black color and fully twice as productive. It was so very early that the first pickings were sent to market along with the last of the strawberries, just at a time when fruit was scarce in market, and therefore sold at the very highest price—25 cents per quart for the first few days, thence down to 15 cents for the last few pickings. Doolittles sold from 15 cents down to 10 cents, and while that is a good price, from 15 to 25 cents is a much better one; therefore we shall grow no more Doolittles, but next spring plant several acres of Souhegan in addition to the three acres now growing.

We gave up the Mammoth Cluster two years ago, planting the Gregg in its place, as it is by far the best and most profitable late variety. The Centennial

we received two years ago from Missouri. It has a very strong growing cane; not quite hardy the past winter; very prolific; berries large, jet black color, good quality, and ripens four or five days after Souhegan.—J. H. HALE, in *Country Gentleman*.

Mr. Chas. A. Green, in same paper, says:—I had it in full bearing this season, and it distinguished itself as a formidable rival to all other varieties. It is perfectly hardy here (Monroe County, N. Y.,) remarkably vigorous and productive, is earlier than Doolittle, and is of superior quality. In size it approaches the Gregg very closely. It is one of the few shining jet black varieties, without bloom, which gives it a fine appearance. It will, however, dry away more than Gregg, being more juicy, and will not endure shipment so well.

#### SCRAPING TREES.

Do we approve of scraping trees? asks a friend of ours. Certainly we do, provided they need it, and one can rarely find an old tree that does not. Aside from the fact that the removal of the old bark scales breaks up a refuge for various insects, including the woolly-aphis, the increased beauty of the tree repays the trouble. There are scrapers made for the purpose; one of these has a triangular blade, another a long blade with one flat and another slightly concave edge. An old hoe is quite as good a tool as any; cut off the handle to about 18 inches, and do not grind the blade too sharp, as a cutting implement is not needed—only a scraper. On a very old trunk some force may be needed to detach the scales that are partly loose, but on young trees be careful not to wound the healthy bark. The scraping may be done now, next month, or later. When there comes a moist, drizzly spell, go over the scraped

bark with good soft soap, made thin enough with water to apply with a brush. Paint over a thin coat of this soap and leave the rest to the rains. Later in the season the trees will appear as if furnished with mahogany trunks. *American Agriculturist*.

#### THE DOYENNE D'ETE.

A. B. Allen, in the *N. Y. Tribune*, thus descants on the good qualities of one of our summer pears.

“The Doyenne d'Ete or summer Doyenne, is one of the earliest, and I am confident if farmers knew now hardy, thrifty and quick-bearing it is, every one of them who care in the least for good fruit would immediately set a few trees.

“This summer pear begins to bear the year after being set out, if the trees are then four to five feet high, and they bear more or less every year after. Some of my trees, only nine to eleven feet high, and with about the same width of branch, had from 600 to 800 pears set on them the past spring. They hung upon the branches like currants or gooseberries. After about a month old I cut off one-half of these, and even then when full grown they touched each other. The fruit in early seasons begins to ripen the middle of July, later seasons 20th to 25th, and continues one month. If picked just before ripening and set in a dark closet, or put into a box and placed in the ice house, it can be kept several weeks longer. The pears are of a roundish obovate shape, one and a half to two inches long, and the same in diameter in its broadest part. It is yellow on one side and a bright pink on the other—very pretty to look at. The flesh is white, tender and juicy—in fact, almost melts in the mouth when eaten at the exact time of ripening. The Doyenne d'Ete comes in the season when such fruit is in request,

and it sells readily in the market. I would recommend its growth particularly to those farmers who entertain summer boarders, for they will find it an excellent supplement to the smaller fruits, such as raspberries, blackberries and whortleberries."

#### A NEW ENEMY TO THE CELERY.

The *Germantown Telegraph* gives the following description of a worm which has attacked the celery crop of that vicinity, and believes it identical with the corn worm (*Heliothis armiger*) which is ravaging Western corn fields. No remedy has as yet been found for its depredations:

"For the first time noticed in this section the growing celery plant is being attacked and seriously injured by a rather singular looking worm, belonging to the 'measuring' family. It is of a greenish color, hairless, ranging from a half inch to over an inch and a half in length. When it reaches its greatest length it is almost transparent. It is a ravenous devourer; and, while it apparently prefers the celery, it is not particular in its diet, and will attack even the leaf of the ruta-baga. In some celery beds it appears in thousands and eats into the stem to such an extent as it is believed will utterly destroy the plant for culinary purposes."

#### GRAPE GROWING IN CALIFORNIA FOR THE EASTERN MARKETS.

At a ranche where grapes are grown for raisins, and for shipment East, the process is as follows: Around a long, narrow table some fifteen Mongolians are seated, busily engaged cutting the poor and withered grapes from each bunch. The fruit is then handed to the packers, several in number, who place them in small boxes, four of which fill a crate. Each box is made to hold one bunch of grapes and each bunch will average in weight five pounds. The grapes sent

East are a beautiful variety of the white grape, known as the Tokay variety. They are large and firm and possess a delicious flavor. As the flesh is hard and comparatively dry, they will keep well and are successfully shipped East, as fast freight, if properly packed. The crates and boxes are made especially for long distance shipping purposes and possess many ingenious features. To ship grapes East by fast freight from Sacramento to Chicago costs nearly \$1,000 per car, yet in spite of this enormous expense, added to the cost of raising, picking and packing fruit, the venture is found to be exceedingly profitable.

#### THE APPLE APHIS.

This little but very injurious insect has been very abundant of late, and many fruit growers have been annoyed and perplexed by their presence in such unusual numbers.

For their benefit we give them what our president says of them in his most excellent work on "Insects Injurious to Fruits," which should be in the hands of every one of our readers:—

"During the winter there may be found in the crevices and cracks of the bark of the twigs of apple trees, and also about the base of the buds, a number of very minute, oval, shining black eggs. These are the eggs of the apple tree aphis, known also as apple leaf aphis, *Aphis malifoliae* (Fitch). They are deposited in the autumn, and when first laid are of a light yellow or green color, but gradually become darker and finally black.

"As soon as the buds begin to expand in the spring, these eggs hatch into tiny lice, which locate themselves upon the swelling buds and the small, tender leaves, and inserting their beaks feed on the juices. All the lice thus hatched at this period of the year are



females, and reach maturity in ten or twelve days, when they commence to give birth to living young, producing about two daily for two or three weeks, after which the older ones die. The young locate themselves about their parents as closely as they can stow themselves, and they also mature and become mothers in ten or twelve days, and are as prolific as their predecessors.

"The leaves of trees infested by these insects become distorted and twisted backwards, often with their tips pressing against the twig from which they grow, and they thus form a covering for the aphides, protecting them from the rain. An infested tree may be distinguished some distance by the bending back of the leaves and young twigs. It is stated that the scab on the fruit of the apple tree often owes its origin to the punctures of these plant lice. This species, which was originally imported from Europe, is now found in apple orchards all over the United States and Canada.

*Remedies.*—Scraping the dead bark off the trees during winter, and washing them with a solution of soft soap and soda, would be beneficial by destroying the eggs. Syringing the trees about the time the buds are bursting, with strong soap-suds and weak lye, or tobacco water, the latter made by boiling one pound of the rough stems or leaves in a gallon of water, will destroy a large number of the young lice. A frost occurring after a few days of warm weather will kill millions of them; in the egg state the insects can endure any amount of frost, but the young aphids quickly perishes when the temperature falls below the freezing point."

The author describes a number of parasites which feed upon and destroy the aphids; nine species of the Lady-bird are described and figured; also Lace-winged or Golden-eyed Flies, and the larvæ of the Syrphus flies. The

latter were frequently found on the lice infested leaves, last season, and were supposed by many to be the real cause of the destruction of the fruit.

#### 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, going half way round 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 round, 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. The 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 the beginning of September, when growth has nearly ceased and while the leaves are yet on the trees.—*London Garden.*

*BAGGING TOMATOES.*—Mr. E. S. Carman, of the *Rural New Yorker*, experimented last season with bagging tomatoes, and found that those so treated were the most brilliantly colored, and when cooked the least acid tomatoes he had ever seen or eaten. It was also observed that the bagged tomatoes ripened more evenly, and about the stem as well as elsewhere. Against the rot, however, bagging afforded no protection.

## MISCELLANEOUS ITEMS.

**CALIFORNIA PRUNES.**—Prune culture is a great success in the uplands of California. Nothing can exceed this fruit in weight and production. In Petaluma every branch is loaded, and every prune sound. The pits are extracted by machinery and used for fuel. So rich and juicy are the California prunes as to drive the German prunes from the market whenever placed in competition. Each tree bears about 100 lbs. of prunes, worth 14 cents per pound at wholesale. One hundred trees are planted to the acre, and the entire cost to pit them for the market is five cents per pound.

**THE HARVEST BERRY.**—The early Harvest Blackberry is making friends this year. It commences to ripen considerably earlier than the Wilson and presents a peculiar glossy, varnished appearance; jet black and very attractive. Very little rust has as yet made itself visible on this variety. The plant naturally tends to a branched form and is prolific in yield. The heavy rains of the past spring have shortened the crop greatly. The plant is so easily trained that it forms the best variety here for garden cultivation, and probably for the field, also.—*Farmer and Fruit Grower.*

**A NABOTH'S VINEYARD.**—England's wealthiest baronet is said to be Sir John Ramsden, of Byram, Yorkshire. His rent-roll is computed at \$850,000 a year. He owns almost the whole of Huddersfield, the great manufacturing centre. The little bit he doesn't own was a very Naboth's vineyard to his father, who, according to popular tradition, once offered to its Quaker owner to cover it with sovereigns if he would sell it. "Edgewise, friend Ramsden?" quoth the Quaker. "In that case it is thine; otherwise all Huddersfield must still belong to thee and me." "Edgewise" was more than the baronet could swallow.—*American Garden.*

**WASH FOR TREES.**—A wash which is highly recommended for trees is made as follows: Take one bushel of lump, fresh burnt lime, ten pounds of common sulphur (rock sulphur), ten pounds of common salt in water, tub to hold from thirty to forty gallons, then add from twenty to

twenty-five gallons of boiling water, cover over; when cold, brush it on with a whitewash brush, brushing into every crevice of the bark of the trees. It is said to be the best and cheapest disinfectant for all kinds of buildings where animal life is located; all the inside of cattle pens, railway cars, and cattle cars should be disinfected with it; it will prevent contagion, killing all germ animals, and prevent the eggs germinating.—*Prairie Farmer.*

**THE QUINCE.**—The fact that the quince will live and give fair returns under the most adverse conditions, has created the impression that it does best under neglect. No tree responds more promptly to good treatment, and none, if given half a chance, is more profitable. Quince trees when young need care to bring them into proper shape. They should be trained to form a single trunk, and may at first need some care to prevent their making clumps instead of trees. After they are well established they bear yearly, and their fruit is always in demand, and usually at good prices. It should not be forgotten that the quince is a highly ornamental tree, both in flower and when loaded with its golden fruit, and may be planted both for ornament and profit.—*American Agriculturist.*

**GOOSEBERRIES.**—Large and early gooseberries command very good prices in the spring, as they are about the first "pie material" which makes its appearance. Another advantage in favor of this fruit is that it brings in *early money*, which is quite an item to most cultivators of the soil who usually have to wait until mid-summer for their first dividends from the farm. We would not advise planting largely, but a patch of a half acre will, if cared for as it should be, bring in a very satisfactory profit. The Gooseberry requires strong, rich soil, and should be well manured each spring. It should be thoroughly and constantly cultivated (except when in bloom), and the bushes must be pruned each season, so as to encourage new and vigorous shoots, as it is only on such wood that the finest fruit is produced. The Houghton seedling has done well with us as a market sort.—*Farm and Garden.*

## FROM AN ALBUM.

We may write our names in albums ;  
 We may trace them in the sand ;  
 We may chisel them in marble  
 With a firm and skillful hand ;  
 But the pages soon are sullied,  
 Soon each name will fade away ;  
 Every monument will crumble,  
 Like all earthly hopes, decay.  
 But, dear friend, there is an album,  
 Full of leaves of sunny white,  
 Where no name is ever tarnished,  
 But forever pure and bright,  
 In that Book of Life, God's Album,  
 May your name be penned with care ;  
 And may all who here may write,  
 Have their names forever there.

## WHAT SEED SHALL WE SOW ?

A wonderful thing is seed,  
 The one thing deathless forever !  
 The one thing changeless—utterly true,  
 Forever old and forever new,  
 And fickle and faithless never.

Plant blessings, blessings will bloom ;  
 Plant hate, and hate will grow ?  
 You can sow to-day, to-morrow will bring  
 The blossom that proves what sort of thing  
 Is the seed, the seed that you sow.

*Ladies' Floral Cabinet.*

**LAYING TURF IN SUMMER.**—Mr. Henderson says : " I find that turf can be successfully laid down, if necessary, in dry and hot summer weather, by simply covering it when finished, before it gets too dry, with about a quarter of an inch of light soil put through a half inch sieve. The grass begins to grow through the soil in a very few days."—*Scientific American.*

**THE CABBAGE WORM.**—We find the following remedy for the ravages of the cabbage worm in one of our exchanges. Have any of our readers any experience of its efficiency. If so, they will confer a favor by giving us their opinion of its value :—" Pyrethrum, or Persian powder, possesses the qualities of destroying cabbage worm life and at the same time leaves the cabbage in a healthy condition."

**WANTED, A GOOD EARLY PEACH.**—The Illinois growers of early peaches wear long faces this summer. The object of their hopes and fond anticipations has fallen to the ground in a shower of rotten fruit. The crop was a delusion. Inquiries for an early peach that does not rot are now frequent. If anyone knows of such a peach they will confer a great favor

by making known its name.—*The Farmer and Fruit Grower.*

**KEEPING GRAPES FOR WINTER USE.**—Mr. Nelson Ritter, Syracuse, N. Y., has had admirable success with packing grapes in single layers, in small, shallow boxes about two inches in depth, with sliding covers. When he packs fruit two layers deep he places paper between the layers, the same as advised by Mr. Husmann. Mr. Ritter has found the Isabella, Catawba and Clinton to be the best keepers, while Salem and Diana have proven fair keepers

**ABOUT STRAWBERRIES.**—The *Western Farmer* says :—" A Southern amateur gardener secured slabs from the saw-mill and bored two-inch holes in them fifteen inches apart and laid them round side up on the edge of some beds, and set a strawberry plant in each hole in August. Such a profusion of strawberries as he had was a sight worth beholding. When other strawberries in the neighborhood were all dried up by the drought his were in perfection. A half pint or more were taken at a time from each plant. It was but little trouble to keep the runners down. But the next season the plants crowded in the hole so closely that the crop was a failure."

**PACKING APPLES FOR SHIPMENT.**—A paper read before the Nova Scotia Fruit Growers' Association, gave some valuable suggestions on packing apples. A vast improvement is stated to have been made in the past season over previous ones. Careful assorting is insisted on. In one case, in a consignment of 300 barrels to England, the first and second sizes were not separated, and the result was \$1 less per barrel than others of the same quality which were assorted. Hardwood barrels are found much the best, both on account of strength and the apples shrinking less. Wrapping the specimens in paper has done well, but is attended with too much labor for general practice. Lining the barrels with white paper has been satisfactory. The experiments with packing in chaff and cut-straw have signally failed. The varieties which have done best for the English markets have been Gravenstein, Ribston Pippin, Pomme Grise, Baldwin, Spitzenburgh and Russet.—*Country Gentleman.*