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AUGUST, 1889.



NATIONAL

BIBLIOTHEQUE

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HORTICULTURIST.

A JOURNAL DEVOTED TO

FRUITS  
FLOWERS  
DRESSING

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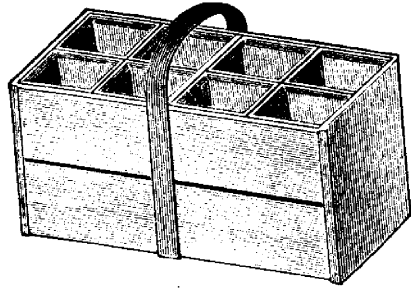
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RASPBERRY-SHAFER'S COLOSSAL.

THE  
**Canadian Horticulturist**

VOL. XII.

AUGUST, 1889.

No. 8.

THE SHAFFER.



PERHAPS as fruit growers we are inclined to judge of all fruits too much from a commercial standpoint and to give too little prominence to varieties that are commendable for the home garden.

Every farmer in Ontario should have a fruit garden for home use, and we shall be advancing the end of our Association as much by naming the varieties suited for this purpose, as by indicating those which are most desirable for the market garden.

The Shaffer is a purple berry and a chance hybrid of the red and black raspberries. It was found on the farm of Mr. Shaffer, of Wheatland, Munroe Co., N.Y., and was introduced to the public by Mr. Chas. Green, of Rochester. The bush much resembles the red raspberry in general habit of growth, but does not send up suckers; it is propagated in the same manner as the blackcaps, viz., by striking root at the tips. It is a colossal grower, reaching up its

huge canes six feet or more, and needs to be cut back once or twice through the season to keep it in bounds, and to cause it to branch freely. The size of the berry is considerably above that of the Gregg black raspberry, and often even larger than the Cuthbert red, but if those on the table before us, grown on our own fruit farm, are a fair average, the colored plate in this issue is overdrawn. It is correct enough, however, in having some twenty berries on a single fruiting branch, and this gives some idea of its productiveness, a strong point in its favor; but our own samples do not average more than three quarters of an inch in diameter, whereas the artist has made them to measure an inch. Still it is quite possible that in more favorable seasons and in very rich soil the berries might attain the full inch, as represented. The Shaffer is undoubtedly one of the most desirable raspberries for home use, for the following reasons: (1) It is an excellent bearer, continuing in season a long time. (2) The quality is excellent, and continues to improve as long as it hangs

upon the bushes. For table use its flavor is peculiarly agreeable, and if left to hang until dark in color, and perfectly ripe, and served with sugar and cream, it is a most delicious dish. Those who have tried it in jams, pies, jellies, etc., say that it is unsurpassed, (3) It is very hardy, and is reported to have safely endured a temperature of 40 degrees below zero. (4) Its large size and ease of cultivation tend to make it a general favorite.


For market purposes, the Shaffer cannot be so confidently recommended, because its dull red color is against its sale, as in the case of the "Philadelphia"; but it is possible that in time its quality may

become known and the berry become in demand in the market. In Michigan the growers gather the fruit for market before it is quite ripe, and while of a bright red color, in which stage it carries and sells better than if left until fully ripe. Indeed one writer in the *Prairie Farmer* claims to have sold the Shaffer in Peoria at two cents a quart more than Cuthberts.

For evaporating, the Shaffer is especially valuable; it loses little more in weight than other kinds, yielding an average of at least eight pounds to the bushel, and sells at a higher price per pound than either Ohio or Gregg.

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## THE SUMMER MEETING.

 THE meeting at Seaforth was highly interesting, and was chiefly devoted to a discussion upon small fruits, of which many fine specimens were exhibited on the fruit table. Of currants, the Red Cherry and the Fays' Prolific were spoken of with the most favor, the latter, however, as having better bunches and being more productive, especially when young. Samples of the Conn gooseberry were exhibited by the Secretary and by Mr. P. E. Bucke, which were large and fine, approaching the Whitesmith in size. We can bear testimony to the large size and great productive qualities of

this variety, and if it is truly mildew proof, it will be of great value no doubt. Mr. Bucke has made a change in the name of this gooseberry, which is henceforth to be known as the "Autocrat." Mr. Beall, of Lindsay, said he believed it was an old variety, and if so the old name should be hunted out and applied, as it is confusing to have synonymous terms for the same variety of fruit.

The subject of "Judging Fruit at Fairs" was introduced by Mr. Beall, in a very able paper. The incompetency of many judges on fruit was severely criticised, and the great need of a carefully prepared scale of points for the guidance of the judges was strongly emphasized. It was also argued

that the one judge system was much more satisfactory than to have three as at present in most cases, because then the responsibility would rest with the one, and could not be shifted upon his colleagues. For this work really competent men should be secured and properly remunerated. Score cards should be used, upon which the judge should give the values under each point which had guided him in the awarding the prizes. A committee, consisting of the President and Mr. Beall, was appointed to prepare a scale of points to be brought up for the approval of the Association at the next meeting. This committee has in consideration some such list of points as the following, viz. :—(1) Commercial value, (2) Productiveness, (3) Hardiness, (4) Quality, and (5) Perfection of growth. The latter point would score more points than the others, because it includes color, size, freedom from spots, etc.

A very practical address was given by Mr. A. McD. Allan, the President, on "Culling, Grading and Packing of Apples for the British Market." He believed that the present system of buying apples in lots at one price, without regard to the real value of the various kinds, was very detrimental to the ultimate prosperity of Canadian farmers. In this way, people would plant those kinds which yield the most fruit, without regard to their value in the foreign markets, a course which would ultimately be found to be a most serious blunder. On the other hand, by paying prices according to the real value, planters would be led to buy only those varie-

ties which were most wanted. For an example of his meaning, Mr. Allan gave the following scale of prices which should be paid for the staple kinds of apples, in a season when the Baldwin was worth \$1.00 per barrel, viz. :—Ribston Pippin and Blenheim Pippin, \$1.50; King, \$1.50; Spy, \$1.30; American Golden Russet, \$1.25; Greening, \$1.00.

A committee was also appointed to prepare a complete fruit list for the Province of Ontario, showing the absolute value of each known variety, upon a scale to correspond with that upon which judges at fairs ought to base their awards; and also to prepare a list of a limited number of varieties for each county or agricultural division in Ontario, of such kinds as were proved by actual testing to be best adapted to each district. This committee will also report at the next meeting, and it is obvious that the result of such work, if carefully done, will be greatly to the interest of our Province.

Another very important plan of usefulness is being matured, and that is one for engaging in the work of the farmers' institutes. Our object is to encourage farmers to grow such varieties of fruits as will succeed in their respective sections, both for home use and for market. The great wheat fields of this continent are situated in the limitless North-West of our young I nion. It is claimed that there are 250,000,000 acres of wheat land in the North-West, south of the 54th parallel; and north of that, along the McKenzie river, that there are 500,000,000 acres of arable, habitable land! What

chance then has Ontario, in the near future, to compete with such a country in grain growing? But in all that vast country very little fruit can be grown, and to us in Ontario will fall the opportunity of supplying it with those fruits which grow in such perfection with us. The importance of our work, therefore, can scarcely be over-estimated.

The Ontario Government has made arrangements for sending out our best and most practical fruit-growers to speak at Farmers' Institutes upon such subjects connected with fruit

culture or forestry, as may seem to be most desirable at each place of meeting.

In view of the Dominion Convention of Fruit Growers which is to be held next January in either Ottawa or Montreal, under the patronage of the Dominion Government, it has been decided to hold the next annual and winter meeting of our Association in the month of December next; and, in response to an invitation from the North Essex Farmers' Institute, it has been decided to hold it in the city of Windsor.

### THE HEART AND BIGGARREAU CHERRIES.

THE cherry crop at Maplehurst Fruit Farm has been unusually good, although requiring early harvesting to save it from loss by rot. Out of some twenty varieties, now about twenty-five years planted, only a few have proved themselves really valuable for market, and a limited number will give a successive supply of this most delicious fruit throughout the months of June and July. From the

#### HEART CHERRIES

we get as a rule less fruit than from the Biggarreau class, and on account of their tender skin they are more subject to being eaten up by birds; yet they are so delicious and so much sought after, that they bring the very top prices in the market and deserve a place in every garden in southern Ontario. The following list will supply the table with a succession of daily supplies until the Biggarreaus

ripen, and with the Dukes and Morellos continue the cherry season for a period of about four weeks. The *Early Purple*, though of medium size, has no competitor in the market, ripening as it does about the first of June. Governor Wood is a delicious cherry for eating out of hand, and is fairly productive; the skin is a pale yellow half covered with red. It is closely succeeded by the *Elton* which we class as the best of the white heart cherries. The tree is a fine grower, and very productive. No cherry is more desirable for home uses; but for shipping it is somewhat tender. Of the black hearts we commend *Knight's Early*, *Black Tartarian* and *Black Eagle*. These are three varieties of the most excellent qualities, tender, rich, sweet and juicy. The latter, however, is not very productive, and would not pay to grow for market. The *Black Tar-*



tarian is the most popular of them all, but the birds know this so well that they usually get the largest share of them.

The

#### BIGGARREAU CHERRIES

are of firmer flesh than the preceding class, yet, owing to their great productiveness and large size, they are usually more profitable. Among the light colored ones, the Yellow Spanish is particularly worthy of notice. It is a beautiful pale-yellow cherry of enormous size and excellent quality, and though not a heavy bearer, yet, if sound, it would be very profitable to grow for market in southern Ontario; unfortunately, it is among the very worst to spoil upon the trees, even before it is ripe enough to gather. This season it has been particularly unpopular in the market on account of the rotten specks; indeed this fault has been found with almost all light colored cherries, dealers writing, "Send no more white cherries."

The Napoleon is the heaviest cropper of any variety we have tried, and though inferior to the former in quality, it is far more profitable, for it is almost as large, and is much in demand for canning purposes. Of the dark Biggarreaus, we have found two which excel any other cherries for profit, viz.: the Mezel or Great Biggarreau and the Tradescant's Black. The former is an enormous cherry, that has yielded with the writer as many as a dozen 12-quart baskets to a single tree, and that, of such cherries as sell in Toronto market at \$1.50 per basket. The latter comes in with the Kentish,

at a time when the market is clear of all the finer varieties. It is a fine shipper, because the flesh is so firm, and, like all the blacks, it has the advantage of color in concealing the specks of rot, which so disfigure the white ones, even when too small to really injure the fruit.

We have been troubled badly with the black knot on our Kentish cherries, but thus far we have kept them free by careful clipping off of all affected limbs.

If we could contend successfully with

#### THE ROT,

the growing of the Heart and Biggarreau cherries in favorable sec-

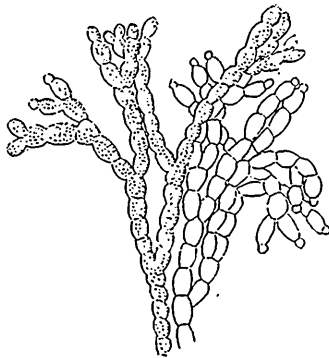


FIG. 56.

tions would be more remunerative than that of strawberries. Thus far, however, no very certain remedy has been proposed. Scientists very wisely tell us that it is a fungus known as *Oidium fructigenum*, which is very widely distributed especially upon the cherry and the plum. It consists of much branched threads which permeate the tissue of the fruit and cause it to turn brown and decay; and when

the air is moist these produce tufts of dirty white, dusty fruiting threads. These are divided into sections, which, when ripe, separate and form spores. When the fungus is ripe these successively ripen and drop away. We reproduce from the report of the Geneva Experimental Station, in fig. 56, a representation of two fruiting threads of this fungus, before the spores have begun to fall away, magnified 250 diameters.

As these spores can only develop in a moist atmosphere, it is evident that if we could keep our cherries perfectly dry there would be no rot; but as this is impossible, we can only

employ preventive measures. They have great vitality, and preserve their generative powers from one fruiting season to another. Sometimes a fruit is attacked before it is ripe, and in that case it hangs upon the tree all winter, until the next fruiting season, and the spores are to be found on it during the whole time. Fallen cherries also serve to propagate the fungus from year to year, and therefore it is evident that much can be done by carefully clearing up and burning all that is decayed, and, where possible, by having pigs under the trees to eat up all that drops.

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## NOTES SUGGESTED BY JULY NUMBER OF "CANADIAN HORTICULTURIST."

BY THOS. BEALL, LINDSAY.

THE reports on the prospects of the fruit crop in the July number, coming as they do from reliable correspondents from all sections of the Province, make it one of the most valuable numbers yet issued. This number should be studied by every fruit dealer in the country as well as by every horticulturist.

When will the idea be exploded that whereas certain fruits, trees, shrubs and plants are affected injuriously by exposure to the cold, and may with difficulty be grown in a certain latitude, therefore it is folly to attempt their growth at any point further northward? Many other factors besides latitude must be taken into account to determine how far

north certain fruits, flowers, etc., may be grown. The frost of May 28th, 29th, which prevailed not only over the whole of this Province, but also over the States, both to the south and west of us, did much less injury in some of the more northern portions of Ontario than in the southern districts. At Ottawa the temperature was only about one degree below the freezing point. At Lindsay about three degrees. At Woodstock, six degrees, while more than six degrees below the freezing point was reported from several places in the neighborhood of Rochester, N. Y., and south of that city.

The injury and injustice done to

the more northern portions of this Province by creating and maintaining erroneous impressions as to the capabilities of its soil and climate is due principally to thoughtlessness on the part of our southern neighbors. In the July number, CANADIAN HORTICULTURIST, page 192, P. B. Mead, writing of the *Yucca Filamentosa*—a southern plant—says it can be “successfully grown in the latitude of New York, and even further north with a slight protection.” A number of fine specimens are now in full bloom on my lawn where they have grown without protection. They were planted many years ago.

Lindsay is about 260 miles north of the latitude of New York City.

The Siberian Pea tree so highly recommended on page 200 is not a beautiful object here during the summer months. It is perfectly hardy and has very beautiful foliage until the hot dry weather sets in, but not afterwards. When the thermometer shows the temperature to be above eighty degrees, the leaves quickly change their beautiful green color to a sickly, yellowish brown, and it remains an unsightly object on the lawn during the remainder of the season.—*July 15th, 1889.*

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## LETTERS FROM RUSSIA.—I

By J. ROSLAV NIEMETZ, COUNCILLOR OF STATE, ODESSA. (*Original in French.*)

### I. STONE ANTONOVKA.

ONE of the finest of Russian apples, the white (ordinary) Antonovka is well known in America, although it has there unfortunately lost its Russian name, and is cultivated there under other names. “Queen of the Steppes” is the name which has been given it by the celebrated Prof. Budd. In the provinces of southern Russia, where it keeps until October, it is not counted among the winter apples, and is replaced by an apple which they call here “Lipovoe” (Linden apple). The finest qualities of the Antonovka are developed only in northern Russia, and there is no reason to doubt that in America it will succeed best in the North. That apple has several

varieties in Russia, of which the best is without doubt the “Antonovka longovia” (meadow) or “Ramen-naia” (Ramen signifies stone), which is a veritable winter apple, not only in the South but also in the North. Having only some very insignificant distinguishing points, it is very difficult to identify the “Stone-Antonovka,” and it is necessary to have long practise to be able to recognize the two trees, but the former grows more slowly, is less umbrageous, and the wood is so hard that it scarcely yields to a knife; in one word, this apple tree occupies among the others the place which the oak occupies among the forest trees. The great difference is in the fruit. That of the Stone Antonovka is not so long

in form as that of the Antonovka ordinary; it is of a brighter color, and has a red tint on the side turned to the sun. The wind is unable to cause it to drop, until it is ripe in September. The apple carries easily, keeps well until June without losing either its flavor or aroma; while the ordinary Antonovka loses its flavor and becomes mealy. All these qualities have made the Stone-An-

tonovka that variety, which for its excellent flavor and ease of transportation, may become an article of export and as popular as the "Duchess."

#### II. KOSLOV PROLIFIC BUSH MORELLO.

The best Morello cherries suffer much from the cold in the gardens of Northern and Central Russia, indeed it sometimes happens that they freeze to the root, consequently the growth of the delicate varieties of cherries in the

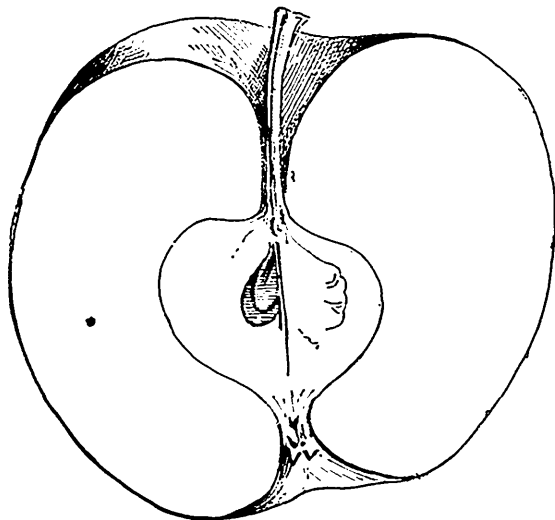


FIG. 57.—STONE-ANTONOVKA.

tonovka a very lucrative product, especially in the gardens situated at a distance, away from the great centres, and in the market it is more prized than other apples. It is not by any mistake that this variety supplants all the others in our gardens. Perhaps the "Stone-Antonovka" is already known in America under some English name, if it is not I would advise the Canadian horticulturists to introduce into Canada

commercial gardens is impossible. It is with great pleasure that horticulturists have learned that an amateur gardener, T. W. Mitshourine, raises in the village of Koslov (province of Tamboff) two varieties, which are named in honor of the originator, "T. W. Mitshourine's prolific bush Morello," and "T. W. Mits-hourine's Morello with small leaf." It is the former, which is the better, that I wish to make known to the



FIG. 58.—THE KOSLOV BUSH MORELLO.\*

\*This engraving is reduced nearly one-quarter.

readers of the "CANADIAN HORTICULTURIST," and I propose to name it, "Koslov bush Morello." See fig. 58.

The mother trees, which are in the gardens of the cultivator, are fifteen years old, have a height of one metre\* and a half, the diameter of the very large head is two and a half metres, the trunk is three and a half inch. That tree flowers very late and gives without rest, each year, from twenty to thirty-five kilogrammes† of fruit, which ripen about the end of August, a time when there are very few cherries in the market, which is an advantage from a commercial point of view. The fruit is large, the surface is polished and of a brilliant color, the flavor is an agreeable acid, the flesh is juicy and the pit small. The originator does not grow this cherry by grafting, but from the pits, because, in grafting, this cherry loses in quality. The plants grown from pits do not vary, and after three or four times transplanting, bear fruit at the age of four or five years. The tree delights in shady places and is not affected by the cold, having already endured 35 Rea.‡ (46 Fahr.) without any injury. I beg you to pay attention to this early fruit.

### III.

There are some varieties of pears which can endure the rigorous climate of the north, of which I may men-

tion the following: Bessemianka Tonkovieska, Volga-Bergamotte, and some others. They are of no great value, but they are cultivated because the better pears are tender. Lately, attention has been called to some varieties of pears from Lithuania little known here, viz: "Beurre Slutsk" and "Bon Chretien Sobiesky." These are dessert fruits and not yet tested with respect to hardiness. Two pomologists, so far as I know, are occupied in the acclimatisation of some varieties of table pears, imported from foreign countries, viz: our renowned connoisseur of Russian fruits, Mr. A. Grell, of Moscow, and Mr. Mithourine, in the Province of Tambow; and their experience appears to me exceedingly instructive. I think it very suitable to quote a passage from one of Mr. Mithourine's letters. Here is what he says about the past winter and the hardiness of pears: "The past winter at Koslov has been unusually severe; it began without snow and found the trees still in foliage. The first cold was about 15 degrees Rea., and in the month of February it touched 32 Rea.; and as a result all the pears have been frozen. The following kinds have endured this severity without any special protection, viz.: *Foreign varieties*: Princess Royale, Beurre gris d'Été, Beurre Six, Champagne longue, Souvenir de congrés. *Russian varieties*: Beurre blanc de Livonie, Beurre verte de Livonie, Kvoschtchinskaia, Bergamotte rouge, Medviedievka. It is astonishing that any of the Bessemianka should have survived."

\* A metre is 39.368 American inches.—ED. HORTICULTURIST.

† A kilogramme is about 2½ pounds avoirdupois.—ED. HORTICULTURIST.

‡ Reaumur's scale of grading the temperature is chiefly confined to Russia; in it the freezing point of water is made 0, and the boiling point 80.—ED. HORTICULTURIST.

## CANADIAN APPLES IN BRITAIN.

FROM A SUBSCRIBER IN ENGLAND.

I READ in the CANADIAN HORTICULTURIST that the Canadian crop of apples last year was unusually large, and the unusually heavy shipments from Canada and the United States wholly overstocked our markets, and brought down prices below paying prices. Now I believe that Britain has a stomach for *all the apples you can send* provided good ones and well packed only are sent. It should be obvious that none other can pay. You must incur the expense of \$1 or so to place a barrel of apples here, good or bad. While the good may sell for from 15 to 20s. and some 25s., and the inferior kinds only 10s. and downwards. If Canadian shippers do their part by packing honestly and sending only good fruit, it will be sure to command sale at remunerative prices. The means must be taken, however, to make it known throughout the length and breadth and corners of Britain, that Canadian apples are to be had, and *how* they are to be obtained. Local dealers will spring up everywhere to order them from such important depots as London, Liverpool and Glasgow. *No such means are now taken*, which you will readily believe when I tell you *why* I say-so. Here am I, a Canadian nominally, a Canadian fruit grower and constant reader of the CANADIAN HORTICULTURIST, so that I am fairly posted up as to what is going on in the Canadian apple trade. I am living in one of the suburbs of London, within five miles of the Bank of

England. I get my London daily paper at my breakfast table every morning, and I see no end of magazines, periodicals, etc., which are now made available for the circulation of advertisements of every conceivable thing that the makers or vendors desire to bring under public notice, and yet I do not know and cannot easily learn where or how to put my hands on a barrel of Canadian apples. I get a portion of my supplies of household necessaries from one of the many co-operative supply associations in London, from which I have for years had American, that is, United States, apples. Enquiring of them, they tell me that they keep only Greenings and Baldwins, which they know and their customers like. Their prices for these are 22 and 20s. per barrel. *They know nothing about Canadian apples*, and as to apples being more plentiful than usual, they were quite unaware of it, and could not purchase their supplies any lower than usual. London has so vast a population, equal as you know to that of all Scotland or Ireland, that it ought to be your chief market. Of all your shipments to Britain this year, the proportion that has gone to London must be but a flea-bite compared with the consumption, and could not affect the market prices at all. I see that the largest proportion of your apples goes to Glasgow. Probably the freights are lower than to Liverpool and London, and these I know have been affected by the liberal supply. Friends in remote parts

of Scotland, say at Campbeltown, Argyleshire, tell us they are getting good apples from Glasgow at little more than half the London prices. I can easily understand how heavy arrivals must bring down prices at Liverpool and Glasgow, where the local markets are limited until a proper system of trade is established by which outlets to all parts of the country are provided.

The course of time will ultimately regulate this, but in the meantime your shippers are suffering serious loss of their legitimate profits. If your fruit growers want to put their trade on a proper and satisfactory footing, they must take the matter into their own hands. They should have an intelligent, active and effi-

cient general agent at London and make it their headquarters. If they cannot find in London such a man with local knowledge, they should engage a man in Canada, make it work in his while and place him there. If this be considered too costly, I venture to say that the losses of shippers, for want of such an agent, is more so, but it does not follow that the apple trade alone need have to bear the whole cost. The business of the apple crop would be confined to limited seasons, leaving a large portion of time available for other business that might be associated with it.

The suggestion is enough. If it commends itself to your fruit growers they will doubtless work out details for themselves.—H. F.

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### THE SIMON PLUM.

DEAR SIR,—In looking at the colored plate of Simon's Plum in your last issue and noticing the statement on the opposite page regarding its quality, etc., I feel it a duty to say that this illustration shows the fruit about twice the diameter of the actual specimens as I have seen them, or fully four times its actual weight. These exaggerations are not only damaging to the papers publishing them, but a great wrong to those who may be induced thereby to plant. The quality of all the specimens that I have seen, of this variety, has been remarkably poor, even when compared with our cultivated varieties of American plums. Yours sincerely, H. E. VAN DEMAN, *Pomologist, Washington, D.C.*

Van Deman, who is the chief of the U.S. Dept. of Pomology, for this criticism concerning the plate of Simon's Plum. Our trees have not yet fruited and therefore we accepted the painting upon the testimony of others. It is only fair, however, to ourselves and to Mr. Smith, to say that the sample submitted to us by the lithographic company, and upon which our editorial was written, was quite different from the one finally furnished our printers by them, and probably much more correct, but it was too late to have them exchanged.

Our journal is conducted wholly in the interest of Canadian fruit growers of whom the editor is one of the largest, and it is therefore our aim, as well as interest, to avoid all misrepresentations and to have all frauds faithfully exposed.

NOTE BY EDITOR.—We thank Mr.



## STRAWBERRIES.—THE THREE BEST FOR HOME USE AND THE THREE BEST FOR MARKET.

By JOHN LITTLE, GRANTON, ONT.

IT is a very difficult matter to prepare a paper of this kind for a society that covers so large a territory as the Fruit Growers' Association of Ontario, having in consideration so great a diversity of soil and climate. I shall be understood as referring only to the county of Middlesex.

Man, with all his knowledge and skill, can never make a strawberry, nor invent a machine to make one. He must have plants to do the work and the soil to afford a place for the plants, and furnish material from which they may draw their supply of plant food.

The plants should have within their reach, and in an available form, as much plant food as they can use. Large crops are never produced without a large supply of manure or its equivalent in unleached hardwood ashes, not less than forty bushels to the acre or more.

A new strawberry possesses great attraction. We all desire to know how large and productive it will prove to be. It will draw a larger crowd of admiring friends around the market-stand than any other fruit ever raised.

There are many farmers in the berry business all over the country who ought to go out of it simply because they will not do the business rightly. They produce quantity at the expense of quality. These men are not making any money in the

business and there are many of them making much less from their farm crop because of the neglect arising from the cultivation of berries.

I am of the opinion that these large planters, by shipping so many small soft berries in bad condition, have glutted the market and almost ruined the business. I have seen this class of goods a drug in the market at from three to four cents per basket, called a quart; but on the same day good berries sold at from eight to ten cents per quart!

The bulk of the surrounding crop of small fruit is sold and consumed within ten or fifteen miles of where it is picked, yet, with these advantages, none of us are getting rich out of the business. Some are only making a living; while others are losing money and becoming discouraged with the low prices which have ruled the past few years.

In reading the horticultural press, I notice a great deal said about the man that grows from 5,000 to 10,000 quarts of strawberries to the acre and sells them at fifteen and twenty cents per quart, while nothing is said about the man that gets from 1,000 to 2,000 quarts per acre and sells them at four to five cents per quart. Less acres and more and better cultivation might remedy some of the evils.

Just here I might give you the testimony of several who are well known and experienced in fruit

culture, what each consider the best strawberry at the yearly meeting in Michigan :—

B. M. Hance—"The *Charles Downing* is the best."

F. R. Harding—"The *Wilson* is the best."

U. B. Webster—"The *Crescent* is the best."

E. H. Scott—"The *Mount Vernon* is the best."

Mr. Cook—"The *Triumph* is the best."

Thos. Wild—"The *Alpha* is the best."

W. A. Brown—"The *Crescent* is one of the worst for eating or market."

T. T. Lyon—"I consider the *Crescent* one of the best early sorts for growing."

W. A. Smith—"The *Wilson* and the *Sharpless* are the best for quality and profit."

S. G. Antisdale—"The *Wilson*."

C. W. Garfield—"The *Cowling* is the best quality for me."

C. A. Green—"For market—*Jessie*, *Bubach* & *Crescent*. For the home garden, *Jessie*, *Bubach*, *Wilson*, or *Jas. Vick*."

Matthew Crawford—"For market—*Bubach*, *Mount Vernon*, *Cornelia*. For home use—*Mayking*, *Jessie*, *Cornelia*."

Just the old saying, Many men of many minds.

The strawberries for home use to lengthen the season, should be early, medium and late, and in this locality I find *Jessie* for early, *Bubachs No. 5* for medium and *Gandy's Prize* or *Eureka* for late, are the best. These are all large to very large, and are also satisfactory for market, being of the largest size and very productive.

A first-class strawberry should not contain over fifty berries to the quart. The time has been when it would be hard to find berries of that kind, but now there are many reports of instances of *thirty*, *twenty*, *sixteen*,

and the last surprise is one of eight berries filling a quart basket, grown by a man of the name of *Shaw*. The story is vouched for by reliable men, as recorded in the *Ohio Farmer* of June 29th, 1889.

The second requisite is a very dark color and free from white tips. Some of the older varieties had this objection, such as the "*Sharpless*."

Thirdly, size and color must be accompanied by good quality such as *Jessie* and *Jewell* possess.

Another season's fruiting and testing of seedling and new varieties has passed. Some of them have been very satisfactory, although the severe frost of the 22nd and 28th of May injured all more or less.

Loudon's seedlings, the originator of the *Jessie*, are worthy of special mention; large, beautiful in color and productive, his No. 15, 11, 21, 22, 33 and 60 are of the very largest size of fair quality and productive. I am of the opinion when they are offered for sale they will replace many now in cultivation.

Townsend's "*Eureka*" still maintains its popularity here as a market and home berry. We are having very fair pickings from it yet, when the old varieties are done. I am favorably impressed with the *Haverland* and *Gandy*.

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#### LOCATION OF THE ORCHARD—ADVANTAGE OF A CERTAIN ELEVATION IN SECURING IMMUNITY FROM FROST.

SIR,—I was much interested in your editorial and accompanying reports concerning the frost in

May last, as you can easily imagine when I tell you I have an orchard of twenty acres and that it had perfect

immunity from the evil effects of frost in that trying time. I purchased the property some thirteen years ago for orchard purposes and have never suffered from frost except once some seven or eight years ago when the fruit buds were brought far enough forward in February to be destroyed in March. I was like yourself when I read "Old Probs'" prognosis for May 20th, and felt, "others may suffer but I am safe." The result has justified my confidence, as has happened frequently before, when my immediate neighbors have suffered severely. This freedom of my orchard from frost is so remarkable that when I have mentioned the facts the statements are generally received with a smile of incredulity. I have in a manner been compelled to devote some thought to its cause, and think that possibly my views may be of assistance to others in selecting land for growing fruit upon.

The land in question is about two miles from the south side of Georgian Bay, which is 30 miles wide at this point. It has an eastern exposure, being on the eastern slope of the Blue Mountains,\* the lower end of the orchard being about 150 ft. above the level of the bay, but the ground falls rapidly from this point to an almost level plain, 100 feet below, while the two miles to the lake does not descend much over fifty feet. On this plain, within fifty rods of the orchard, ice as thick as a window glass frequently forms during the night without any frost upon the

orchard. From the upper side of the orchard the mountain continues to rise for some five or six hundred feet. I have often seen heavy frost and snow upon the mountain above, and frost as above described, without snow, upon the plain below, and no frost upon the orchard—about this time the incredulous smile appears—but I am not claiming more for my orchard than for my neighbors' similarly situated. These statements are true and can be substantiated by credible witnesses, and the immunity from frost of my orchard can be demonstrated at the present moment, for within its bounds are several varieties of apples, pears, plums, cherries, gooseberries and grapes and E. Crawford Peaches, with red, white, and black raspberries and currants, heavily laden with fruit going on to perfection. There must be some reason or reasons for such a state of affairs, and as I am too modest to claim a special interposition of Providence in my behalf I have earnestly sought for the law or laws of nature governing it.

The results of my cogitations, whether right or wrong, are these: The mountain gives the protection from prevailing winds which has been so frequently emphasized in the reports of our Association. The south side of a large body of water modifies favorably the temperature of the air passing over the orchard from the cold quarter of the compass. These conditions were known and taken into account when the land was purchased, but, aside from the quality of soil and efficient drainage, were the only ones considered. The

\*This ridge is known in the Niagara District as the Niagara Escarpment.—EDITOR.

question of the proper elevation came in unexpectedly to aid in procuring immunity and, in my opinion, acts in this way: Cold air, being the heavier, sinks to the lowest levels, causing in this instance the frost upon the plain, leaving a warmer stratum of air above in which the orchard lies. The higher end of the orchard is between three and four hundred feet above the bay, which, in this northern region, appears to be high enough to bring into noticeable action the law of the lowering of the temperature as the elevation is increased. Were it not for this fact in physics, all the air above the lowest stratum would be of the same temperature, or an increasing temperature, as the mountain was ascended. The deposit of moisture on the higher levels in the form of snow, and not on the lower, is in consonance with this. The air on the higher levels from which snow is deposited is the warm moist air from the bay which has reached an elevation high enough to

cool it to the point of congelation, while the cold air on the lower level is the dry air that was on the mountain and its slopes, which, as it was cooled near the surface of the ground, slipped down to the lower level of the plain, the place it had occupied being taken up by the warm air off the bay.

The fact remains of a remarkable immunity from frost of a strip of land on the slope of the mountain in this neighborhood, and has been noticed by you in your neighborhood. If my explanations are correct, anyone seeking land has new data to assist him in protecting his future orchard from the evil effects of frost, for as far as I am aware the question of the proper elevation to secure this object has never been looked at from a scientific standpoint before. I trust you will not find this attempt to obtain future benefit from present misfortune too long and garrulous for insertion in your next issue.—  
GEO. M. AYLESWORTH, *Collingwood.*

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### CARE OF VINES AND SUMMER PRUNING.

IF all the rotten grapes of last season lying on the ground are covered so deeply at the first plowing that the after cultivation will not reach them, the danger of rot will be greatly lessened.

There is great diversity in modes of summer pruning the vines, and in what many call by that name we see only Vandalism, that is, to permit a free growth until after midsummer, and then to go through the vineyard with a scythe or a corn-knife, cutting and slashing as if they were trimming a hedge.

What we, here in Missouri, consider the proper method, is to have vines so pruned as to have two, three, or four canes start pretty well down on the vine, from spurs headed back for that purpose. These we let grow without any disturbance except to pinch the ends of the shoots when they have reached the top of the trellis or stake. Then let them run into laterals as strong as they please.

And now for the fruiting branches, which we begin on as soon as there are two joints formed beyond the

outside branch. We pinch the point off, and if there are too many bunches, pinch back two or three eyes from the second bunch, taking the third bunch off. Two bunches are, as a rule, better than three or four.

It will be but a few weeks until the outside bud will have started out, and often both will make several joints of growth, from three to four inches; then pinch them again. This will form a canopy of leaves over the fruit, and will develop it better than if the cane had been left to grow without checking. There will be plenty of leaves to carry on the fruit and at the same time put more vigor and force into it. This being done, all the surplus vigor will go into the canes destined for the next year's fruiting.

If a man is growing fine grapes for sale let him try the thinning process on a few vines; that is, leaving only two bunches on each bearing branch, and if these should not be nice ones, let him take off but one (the best) and then see if these will not com-

mand more money than if the whole crop had been left on. It is a fact that few realize to what size some bunches will attain if properly thinned. If extra fine bunches are desired for exhibition, select the largest bunches when the berries are well formed, and, with a small pointed pair of scissors, carefully clip out every alternate berry. It will surprise those who have never tried this, and it will afford no little gratification.

I once exhibited a bunch of Concord grapes that weighed over one pound, and which had berries an inch in diameter. The President of the society came to me and asked seriously whether it was really a Concord, and the committee thought that I was putting a joke upon them. This was nearly thirty years ago, when that famous grape was not so well known as now. This thinning has another great advantage in case we wish to bag them, as it takes so many less bags.—S. MILLAR, in *Orchard and Garden*.

## Floricultural.

### Propagation of Roses.

It is too late now to propagate hybrid roses by layering. This should be done in July, and the process is well known, namely, to bend the branch and pin it to a shallow trench in the soil or weight it down and pack the earth firmly on top of it. Before the branch is laid down, a cut should be made on the under side about an inch long and to the pith of the cane. Spring the tongue away from the cane somewhat, as in Fig. 59, and in the fall it will be found covered with small roots. The cane may then be cut off near the cut and between it and the main plant, and the cutting so rooted will depend upon its own roots for nourishment.

Cuttings, or slips of roses, mainly

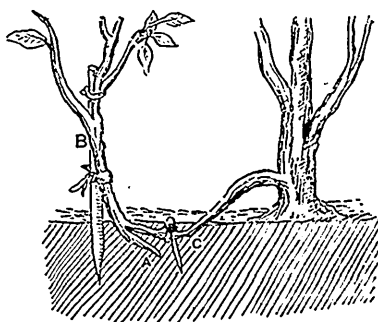


FIG. 59.

teas, and tender ever blooming sorts, may still be rooted. This is generally done

in sand. The cutting is made of well-ripened wood, and is to have three eyes.



Fig. 6c.

The lower eye is to go in the ground, and from that leaves must be cut with a sharp knife in such a way that it will not injure the bud. When it is plunged in the soil, the base of the second eye must come just to the surface of the sand (Fig. 6c). The pot or box in which such cuttings are started may be half-filled with earth, and topped out with sand. During warm weather, no bottom heat is required. Cuttings of the hybrids may be made in the same way, but the 1st of August is the time usually chosen, as indeed it is for teas, though teas may

still be propagated.

Too much sunshine is not desirable for cuttings under these conditions. When they are first placed in the ground or pots, the earth should be

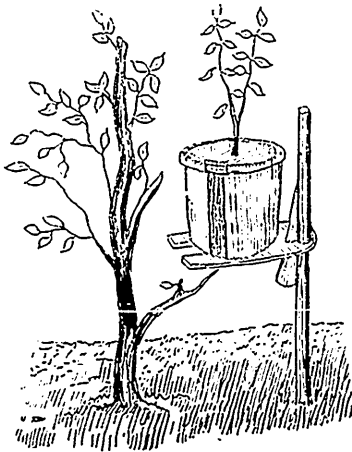


Fig. 6i.

firmly compacted about them. but they should not be given a great deal of water. Protection of the soil from dry-

ing by mulch is preferable, as the slip cannot take moisture until it has started roots. It is often impossible to bend down stems of roses. A simple stand, as shown in Fig 6i, is here useful. Some kind of a receptacle for earth, like a tin can of good size, should be provided. This must be opened at the side, first having the bottom melted off, and, after inclosing the branch it is desired to root, filled with damp earth and kept from drying. You will find the book entitled *Propagation of Plants*, published by the Orange Judd Co., 751 Broadway, New York, a very interesting and instructive work ; price \$1.50.

### Vines on the Old Trees.

IN the rambling door yards of the farm houses of the land there is often to be seen a patriarchal apple tree, or a number of them, for, a century ago, our ancestors had to be utilitarians, and the apple trees not only furnished them with shade, but with fruit and flowers. But these old trees that have, for so many years, held aloft their yearly burden of fragrance and fruition are in the decay-dence, and every season there are less of them ; it is, however, a pretty fashion when one breaks off, or has to be cut, to let it form its own monument, by leaving the stump, and, if possible, a small section of branch, and planting with some fresh earth a Clematis or Virginia Creeper at the foot, and placing a pretty bird house on top. Especially as it is not always convenient to have it dug out by the roots, and as it often leaves a space where one would prefer to have something growing.—*Vick's Magazine.*

### Climbers in Autumn.

CLIMBING plants on walls require attention if not already attended to. They have completed their summer growth, and many of the shoots have extended considerably, and have not a particularly neat appearance. Some

persons adopt the ready method of reducing order out of confusion by cutting off all the summer shoots of their climbers close to the wall; but this a mistake. Some plants will endure it very well, but in the case of others it simply amounts to cutting off the flowers for next year; many shoots are removed on which flowers would be borne if the wood became hard and ripened by exposure to sun and air in autumn. Ripening of the growths is an important matter in the production of blossom. This may be seen with fruit trees, which after a hot summer are covered with "sheets of bloom" in the spring; but after a dull, wet summer, blossom is sparse. It is the same with plants of a woody nature, and climbing plants therefore should not be allowed to become so crowded with shoots now that they cannot ripen, or there will be few flowers next year. With plants grown for the sake of foliage alone the case is different, and they can be allowed to ramble and intertwine according to the taste of the cultivator.

#### THE VIRGINIA CREEPER.

This one (*ampelopsis quinquefolia*) is the easiest and quickest wall-covering plant in cultivation, and appears to grow as well in cities as in the open country, if it has fairly good soil to root in. Plants are also grown in boxes outside, and the growths arched over windows or trained as a green drapery to balconies. It is necessary to see that the chief stems of the plants are well secured to walls now, or the autumn rains add so much to their weight that the plants are liable to be dragged down to the ground. This occurs every year, and it is with the object of preventing such disasters that this reminder is given at a time when the hint may be of service. The plant referred to is known by many persons as the American vine. It is propagated by layers and cuttings.

#### AMPELOPSIS VEITCHI.

This is another species of the same genus, but the species referred to, Veitch's *Ampelopsis*, is a native of Japan, and is one of the most beautiful summer and autumn wall-covering plants in cultivation. The leaves are much smaller than those of the Virginia creeper, and the shoots cling to walls like ivy. In sunny positions, and where the soil is of a dry nature, the leaves assume brilliant tints in autumn. Many persons see and admire this glowing autumn wall plant at this season, but do not know its name, and are consequently unable to order young plants for themselves. This reference will enable them to identify what they admire, and procure plants if they desire to do so. Those who have them in a young state should secure the growths at first, directing them to the space they are expected to cover, after which they will require no further care. This attractive creeper is perfectly hardy, but casts its leaves in the winter. Beautiful specimens may be seen on the South church and high school buildings, as well as other places in Springfield. In Boston, where it was first planted to any extent, are some magnificent vines.

#### HONEYSUCKLES.

The long streamers should now be affixed to walls where there is space for them, arranging them six inches apart, and those that cannot be secured may be cut to about a foot in length. This portion will then have a better chance of ripening or getting firm, and in winter the shortened shoot may be cut still more closely, or within an inch or two of the main branches from which it springs. The young shoots that are secured to the wall—that is, the growths of plants that have not occupied the space they are desired to cover, may be topped now, and pruned back to where the wood is firm, the soft portions being of no use for producing flowers.—*Farm and Home.*



## The Canadian Horticulturist.

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REMITTANCES by Registered Letter are at our risk. Receipts will be acknowledged upon the address label.

### Notes and Comments.

WRAGG AND VLADIMIR CHERRIES. —Mr. A. A. Wright of Renfrew, sends us samples of these cherries. In point of quality, if these are a fair sample, we are disappointed in both of them. As may be seen on p. 239, Mr. Wright most values the Wragg, but both are much inferior to the Kentish, having a somewhat bitter taste and tough skin. The Vladimir resembles the Kentish in size and appearance, but the Wragg is much darker. Possibly they would be valuable in pies, and perhaps Mr. A. A. Wright, or his estimable wife, can give us some information on this point; but rather than eat them for dessert, even if we lived in the cold north, we would prefer to pay the express on a basket of fine Canadian cherries from Toronto.

THE CRANDALL.—We are just in receipt of a quart of sample berries of this new currant, and also of a limb with fruit attached. They are in size very large, much larger than the largest size of Lee's Prolific. The ripe ones are jet black, and altogether seem to be a fruit that would sell at a very top price in the market for black currants. We like the flavor both raw and cooked. We have had a few made into

jam, and all pronounce it much ahead of the ordinary black currant jam. The only fault we can discover is the *toughness of the skin*, which is not made very tender even by cooking. Possibly this may be in its favor as a shipping fruit, because it would carry well.

KEROSENE EMULSION. —Prof. Riley's formula for making a kerosene emulsion is as follows:—Gradually add to kerosene half as much milk, stirring thoroughly the two until they are perfectly combined and no drops of oil are to be seen, and a complete emulsion is formed. For use one part of this emulsion or mixture is added to twelve parts of water, and thoroughly stirred. This he says is a most generally useful insecticide.

POTTED STRAWBERRY PLANTS.—Mr. W. F. Massey writes in the *Garden and Forest*, favoring the use of potted plants. His custom is to make the soil clean and mellow between the rows, and to train out the runners to strike root in this as soon as possible. He does not sink pots, but instead he takes up these young plants as soon as they have made roots half an inch long, and removes them to the potting shed of the greenhouse where he pots them com-



fortably in good soil. These he places in partial shade and keeps them well watered, and as a result he has better plants than those which are grown in full exposure. These plants are ready for setting in the end of August, and will become sufficiently established to bear a fair crop the following year, and a full crop the year after. This is as long as he would keep his bed, for he finds it less trouble to plant a fresh than to keep an old bed clean after its second crop.

**THE FRUIT PROSPECTS DO NOT IMPROVE.**—There is a great outcry in the Grimsby section that the grapes are dropping from the stems, and that this misfortune is so serious that in some cases almost the whole crop is already lost. One gentleman who has a vineyard of Niagaras, a kind which appears to be suffering more than any other, says that a few weeks ago, had any one offered him \$700 for his crop he would have scorned it; now, he says, his whole crop will not be worth five cents. Even the Concord is suffering very much in some vineyards. We can give no satisfactory explanation, unless it is the excessive rains which occurred at blossoming time.

The apple scab has returned with more destructiveness than ever, especially upon the Early Harvest and the snow. Many of the young apples are literally covered with the *fuscladium*, and are cracked from stem to calyx. Greenings and Kings are also much affected.

*Popular Gardening* publishes a report of the respective fruit crop in the United States in a chart in which 5 indicates a very heavy crop, 4 above the average, 3 the average, 2 under, 1 poor, and 0 a total failure. As a result it is computed that all fruits will be under the average except Raspberries, Blackberries and Strawberries, and these are very little more than an average.

**THINNING FRUIT.**—This is a practise more often neglected than ob-

served. Most of us acknowledge the utility of it, but we have yet failed to meet with the Canadian orchardist who regularly thins his fruit. No doubt it can be proved that it pays in dollars and cents, for, when a tree or vine is overloaded with fruit, much of it will be too small to gather, and the whole will sell at a low price. As for the extra labor, this is not to be considered, for if a tree has on it two hundred peaches what difference is there whether we gather one hundred now and one hundred in October, or the two hundred in the latter month?

Many of our apples and pear trees, too, are cumbered with a large amount of defective fruit, which is robbing them of their vitality in the maturity of the seeds. These should by all means be removed as early as possible, in order that the strength thus being wasted may go to the enlargement of the finer specimens. There is no doubt it will pay well to thin our fruit, and we would like to hear from any one who has given it a fair trial.

**THE PEAR BLIGHT** and the apple twig blight are both playing havoc with many beautiful trees this year. Mr. E. J. Woolverton has a beautiful orchard of fine thrifty Duchess dwarf pear trees; they are of bearing size and were the pride of the owner until early in June, when alas! this terror of the pear grower, visited that orchard, and now it is a sad spectacle; whole rows of trees with scorched bark and withered leaves, tell the ruinous tale of destruction. The Quince is also suffering very much, though as with the apple, it is chiefly the smaller twigs that suffer.

Prof. Burrill, of Champaign, Ill., says the mystery of the blight is now explained. It is caused, he says, by tiny organisms known as bacteria, which are so very small that they can only be seen with the high powers of a compound microscope. To the same group belong most of the so-called disease germs to which are

now attributed many of the deadly diseases which affect man and animals. In this we believe no one has as yet contradicted him, and indeed, when it is so hard to study the habits of the visible creation, few of us will attempt to disprove the statements of the careful scientist with regard to microscopic life. The germ of the pear blight is described as egg-shaped and -consisting of a single cell which multiplies by division across its middle. It has no mouth, stomach, leaves or roots and can only take in nourishment by absorption. The only way in which it can gain entrance to the cells of the pear tree is through wounds or through such young and tender parts as are not yet protected by a skin-like covering, *e.g.*, through the tips of growing twigs. Once there, it absorbs for its own development the materials stored up in the cells for the tree, and increases with such rapidity that there are soon millions of them in a single twig.

The only remedy proposed is careful cutting away of the affected parts. The extent of the injury can usually be seen by close examination and when the lowest limit is found, the whole of the part should be cut away, and the wound painted with raw linseed oil and lead to exclude entrance.

#### Comparative Apple Shipments.

THE following table of apple exports from years 1880 to 1889, may be interesting to Canadian apple growers. From this we learn that last year was the heaviest exportation ever made of apples from the American continent; and if we could read behind the scenes, no doubt we would also learn that it was on the whole the most disastrous to shippers. We notice that New York is the largest port of export, and Montreal and Portland next. We class them together, because Portland only takes the place of Montreal when that is closed by the winter.

The table is prepared by R. Dixon, of New York City.

|              | PORTS OF EXPORT. |         |           |           |          | PORTS OF IMPORT. |            |            |         |          |          |           |
|--------------|------------------|---------|-----------|-----------|----------|------------------|------------|------------|---------|----------|----------|-----------|
|              | New York.        | Boston. | Montreal. | Portland. | Halifax. | Phila.           | Annapolis. | Liverpool. | London. | Glasgow. | Various. | TOTAL.    |
| 1880-81..... | 509,000          | 510,300 | 145,376   | 30,068    | 21,250   | 9,872            | .....      | 830,114    | 177,015 | 216,391  | 95,096   | 1,328,866 |
| 1881-82..... | 725,800          | 450,113 | 40,113    | 14,860    | 14,860   | .....            | 21,533     | 132,438    | 46,075  | 81,860   | 13,318   | 305,592   |
| 1882-83..... | 166,570          | 102,403 | 64,300    | 16,890    | 18,542   | 3,000            | 10,392     | 22,413     | 46,975  | 81,860   | 13,318   | 305,592   |
| 1883-84..... | 53,038           | 7,145   | 7,145     | 0,811     | 3,758    | 325              | .....      | 46,601     | 4,843   | 20,685   | 343      | 81,532    |
| 1884-85..... | 236,314          | 397,130 | 84,485    | 71,160    | 41,257   | .....            | 8,612      | 491,898    | 223,681 | 137,641  | 16,590   | 760,210   |
| 1885-86..... | 456,203          | 221,724 | 68,716    | 87,391    | 37,082   | 186              | .....      | 537,695    | 147,402 | 176,415  | 24,031   | 888,273   |
| 1886-87..... | 175,595          | 393,479 | 196,713   | 106,596   | 91,666   | .....            | 20,035     | 408,557    | 187,810 | 138,756  | 12,275   | 807,924   |
| 1887-88..... | 275,600          | 103,916 | 93,058    | 28,215    | 35,052   | .....            | 17,881     | 316,557    | 194,072 | 130,517  | 18,275   | 668,121   |
| 1888-89..... | 471,137          | 382,199 | 291,307   | 148,835   | 91,091   | None             | 18,191     | 790,502    | 279,374 | 272,668  | 65,165   | 1,407,409 |

### Preservation of Grape Juice.

MR. W. D. KITCHEN treated the Ontario Fruit Growers Association to some grape juice at the banquet given us at Grimsby two years ago, and it was pronounced excellent. He has now in his cellar some 10,000 bottles which he has kept two years without the slightest fermentation. In view of this the following from *Vick's Monthly* is opportune:—

In the report of the Chemical Division of the Department of Agriculture, for 1887, occurs the following on the "Preservation of Wine": "The method *par excellence* for the preservation of wines is Pasteurization, already alluded to in this report on malt liquors. The temperature employed is from 50° to 65° C., and serves to completely destroy all vegetable life in the wine. When a process so unobjectionable in every way answers its purpose so admirably, it furnishes an additional argument in favor of the legal suppression of all chemical means of arresting fermentation by the use of antiseptics, etc."

The temperature mentioned above, of the Centigrade scale, corresponds very nearly to 125° to 150° Fahrenheit. Pasteurization, then, consists in heating the liquid to be preserved to the degree mentioned above, and then excluding the air from further contact with it. Grape juice can in this manner be kept perfectly without fermentation, or it can be allowed to pass to a certain stage of fermentation, developing a desired quantity of alcohol, and then being held at that point. The close bottling of such liquids is an essential condition, and then they must be used when opened, otherwise, with the access of air, the fermentive process commences.

### The Powdery Mildew. (*Uncinula Spiralis*)

MR. WM. ORR, of Stoney Creek, called at our office on the 27th inst. to

say that a mildew had suddenly appeared at Stoney Creek and was working sad havoc with the vineyards, which had escaped the frost. We at once inspected our own and a neighboring vineyard and found it but too true, and remedies must be at once applied in order to save our crop.

One year ago we gave some account of the Downy Mildew, (or *Peronospora*), and as the treatment of the two is wholly different, flour of sulphur being a specific remedy for the one, and useless for the other, it is very important that all vinyardists should learn to distinguish them.

Without entering much upon the botanical, we may call attention to the external characters, by which the Powdery Mildew may be known. In the first place then it requires a comparatively dry atmosphere for its development, while the former requires a liberal supply of moisture; for this reason it is a serious pest in California. Secondly, it appears in dull grayish-white patches upon the upper surface of the leaves, and sometimes thickly covers the berries themselves with the greyish powder; while the Downy Mildew appears chiefly upon the lower sides of the leaves as white patches, and on the upper side only as yellowish spots which soon assume a brownish hue, and finally the leaf becomes dried and shrivelled. From these characters no doubt the observer can readily distinguish which mildew is upon his vines.

As the Powdery Mildew grows wholly upon the surface and does not penetrate its host as the Downy, it may be destroyed by the direct application of some fungicide, while the mycelium of the Downy Mildew so penetrates the leaves and fruit, that remedies for it must be preventative, and consist of copper solutions applied early in the season, before the fruit has formed.

The simplest and most effective remedy that has ever been discovered for the destruction of the Powdery Mildew, which is the one just now (June

27) so rapidly spreading through our vineyards, is the flour of sulphur. The fumes given at high temperature by this powder are destructive to the fungus; and therefore the best effect can be gained when the thermometer is the highest, as say from 75° to 95° F. Where the temperature of the soil is as

high as 110° to 120° during the day it is found that it is sufficient to merely strew the sulphur upon the surface of the ground under the vines. It is stated also that where the temperature does not exceed 77° the effects of the sulphur will not be apparent until after a week's time.

## QUESTION DRAWER

### The Grape Vine Flea Beetle.

61. I SEND you a sample of the doings of an insect that I have found playing havoc with both grape vines and Virginia Creeper. It is something new to me, but, perhaps, some of the members of the F.G.A. may know it. I got it at Mrs. Wm. Ball's, Hullet, near Ball's Bridge. The grape vines were killed off with the frost and now the young shoots are being destroyed with this pest, and it is just as bad on the Virginia Creeper, leaves of both I enclose with the little worm. The moth you see was on the leaf just where I crushed it. I thought it might be interesting to the Society, I therefore took some specimens for you.—WALTER HICK, *Goderich*.



FIG. 62.—THE GRAPE VINE FLEA BEETLE.

The insect enclosed in the box, together with some well-riddled grape vine leaves, is the Grape-vine Flea beetle, known to entomologists as *Graptodera Chalybea*. It is a near relative of the potato beetle, both belonging to the family *Chrysomelidae*

or leaf eaters. The moth enclosed has no connection with the larvæ which have so greedily stripped the vines of their foliage; the parent is a beetle, which is very destructive some seasons by boring into and feeding upon the young buds. It hibernates under loose patches of bark or other refuges from the cold, and after feeding upon the buds during the month of April, and the leaves in the month of May, it deposits upon the foliage clusters of orange colored eggs, which soon hatch out into the still more destructive larvæ, such as those which Mr. Hick has sent in to us.

In order that our readers may the easier distinguish this beetle and its progeny, we copy an engraving showing its various stages. The larvæ is shown in *fig. a*, hard at work skeletonizing a leaf, and at *b* highly magnified. When full grown, it is a little more than three-tenths of an inch in length, of a brown color with a black head. After feeding about a month it descends to the earth and encloses itself in a small roundish cell such as is shown at *c*, from which in about three weeks emerges the perfect beetle. The latter is described as about three-twentieths of an inch in length, and varying in color blue to green.

To destroy the beetles, Prof. Saunders recommends in his book on "Insects Injurious to Fruits," strewing air-slacked lime or unleached wood

ashes about the infested vines in the autumn; and, to destroy the larvæ, spraying the young foliage with Paris green and water.

#### Root Pruning.

62. WHAT is the correct time and mode of root pruning. I have two plum trees, a Lombard and Bradshaw, that make much wood but little or no fruit. One man says cut your trench at a distance of eighteen inches, another thirty-six inches. Again, there is a question as to season. The diameter of trunk is near six inches. Can you recommend me a first-class work suitable for Canadian Horticulture. I am in want of one for reference.—Wm. R. HUGHES, *Toronto*.

Root-pruning is a practice which we would like to have come under discussion at a meeting of our Association. In our opinion it is an exploded notion that any particular good can come from such a barbarous custom. How can any one give directions for cutting off just the proper proportion of roots, when those roots are buried from sight, and the length depends upon so many conditions, such as prosperity of the soil, manner of cultivation, etc., etc. Such an operation would be something like pruning the branches of a tree in the dark, or like cutting off all limbs extending beyond a certain distance from the trunk. Of course root pruning will check the growth of a tree, and possibly as a result throw a too vigorous tree into bearing, but the same object can be gained by other means, such as less cultivation, summer pruning, etc., and with less permanent injury to the trees.

There is no Canadian work that we know of on Horticulture except "Beadle's Canadian Fruit, Flower and Kitchen Garden." Among American authorities we have "Downing's Fruits and Fruit Trees of America"; "Thomas' Fruit Culturist"; and "Barry's Fruit Garden."

#### Sample Gooseberries.

63. SIR,—I send you a few gooseberries for examination as I rather fancy their shape. I

think the bush is a seedling, as it came up close to a post in the garden.—G. WILGRESS, *Cobourg*.

In shape this berry is obovate, but in size it is scarcely as large as Smith's Improved, and probably no better.

64. By post I send some gooseberries. I grew the bush which bore them, from seed. It is grown on a heavy clay soil. The bush is about three years old, and very healthy and the leaves very green and firm. I should like to have your opinion on it. No mildew has appeared on it and no grub, but the latter may arise from the fact that it is not very near any other gooseberries or currants.—ALFRED HOSKIN, *Toronto*.

These samples are larger than the last, and would average larger than Smith's Improved. We can say little about them, however, without seeing more of them. Our friends should send us a branch of the bush with the berries attached, for sample, where convenient.

#### The Juneberry.

65. Could you kindly inform me, 1st., What varieties of the Amalanchier family are useful as small fruits; 2nd., Are they in cultivation; 3rd., Where can they be had to purchase; 4th., How are they propagated; 5th., What is their value for home use or market as compared with huckleberries and are they a profitable fruit to grow?—P. E. BUCKE, *Ottawa*.

We have had no experience in the cultivation of the Juneberry, and therefore can give no personal experience. A writer in *Vick's Magazine* says:—

"In the cold north, where the variety of iron-clad tree fruits is yet limited, any addition is acceptable. Arborescent forms of the Amelanchier are quite numerous in northern New England. I have received four very distinct kinds from Aroostook county, Maine, and here in Vermont the wild trees vary much in the size as well as abundance of their blossoms and their fruit. But west of the Mississippi there are found dwarf, large-fruited species which bloom and bear at two or three years from seed, and make compact bushes

not larger than the currant. The fruit of these vary, but on some they equal or exceed the size of the Cherry Currant, and are produced abundantly. This fruit is sweet and pleasant, less acid than the Blueberry or Huckleberry, and is an acceptable garden substitute therefor. It is, however, much more sought after by birds than either the Currant or the Huckleberry—in fact, they are disposed to take it all, considerably in advance of ripeness, and I fear this will prove a serious difficulty in the way of its successful culture. Still, it might pay to cover the bushes with cheap netting. Almost everybody likes the fruit, the native variety going here by the name of "sugar plum."

Mr. H. Vandeman, chief of the U.S. Department of Horticulture, says:—

"I have been experimenting with the dwarf varieties of Amelanchier for about fifteen years, and I have several varieties growing upon my place in Kansas which are abundant bearers, extremely hardy, and have never been troubled with any fungus. Have sold four to five hundred quarts of the fruit in a season, generally at good prices. The varieties differ greatly. I have one from the mountains of Pennsylvania which is of unusually fine flavor, and very promising."

They are propagated by layers, cuttings, or by grafting upon the Hawthorn or the Quince.

66. MR. P. ALLAN, of London, writes asking about the variety being introduced under the name of "THE SUCCESS." We cannot reply better than by quoting from a letter from Mr. J. G. Lovett, Little Silver, N.J., the introducer, who is probably the only one who has tested it.

"SIR,—As to the Success Juneberry we would say that we consider it by far the best variety of the Juneberry that has yet been introduced. It is of a much finer flavor than other sorts: the fruit is of a dark purple when fully ripe;

of the same shape but much larger than the common huckleberry; flavor sweet, or of a very mild subacid. It is becoming very popular, transplants easily and is quite hardy and stands the summer sun exceedingly well. Planted once, they continue for one's lifetime as they propagate from suckers that spring up from the base of the bushes. Although the Juneberry does not rank equal with some of our best small fruits, still it is certainly well worth a place in the family home garden, and the variety "Success" is the best yet introduced."

#### Pot-grown Strawberry Plants.

67. WHAT is the best time to plant pot-grown strawberry plants?—T. G. GASTON, *Hamilton.*

*Reply by T. C. Robinson, Owen Sound.*

The best time to plant potted strawberry plants is *just as soon as they are obtainable*. Runners start from vigorous old plants early in June. If these are "layered" on the surface of rich soil in small pots they will usually form well-rooted young plants in the pots early in July. Planted in July they will yield next season more than half as much fruit as a plantation, equally treated and of equal size, started in the previous April, although, if well treated, they will do a great deal better than many a "full grown" plantation of equal extent which may not have been hoed just as promptly or may not have been manured as plentifully as desirable.

#### The Dying Oak.

68. I TAKE the liberty of writing you to see if you or any of your readers can give me some information on a subject that interests me. I have a few large old oak trees on my place. They look healthy except a few limbs at the top. Every year a few more die off leaving the tops dry and ugly. The lower limbs of the trees keep healthy and grow considerably every year. The trees are so large and high I can't get anyone to go to the top to cut off the dead wood.

What is the cause of the death in the trees and what remedy would you suggest?—W. W. F., *London, Ont.*

Reply by T. M. Grover, Norwood, Ont.

This oak, of which it is said a few top limbs die yearly, is probably too large to be permanently preserved. The death of an additional part is perhaps due to the root being very long in some parts and reaching a soil unsuitable to nourish it. It has got to a stratum of rock, wet clay, or got exposed to some injury or change by drainage, excavation or mutilation. But there are plenty of men in London who will ascend that tree and cut out the dead limb; and fortunately the oak is one of the few trees that does not depend on the regularity of outlines for its beauty and, no matter how broken up, it may live grand and safe for generations.

#### The Gooseberry Fruit-worm.

(*Dakrma convolutella*.)

69. I send to-day specimen gooseberries containing worms referred to by you in *HORTICULTURIST*. If you keep them a few days they will make a hole but will not leave the berries for some time longer. We have also experience with the large green worm which webs a number of berries together. Those in-

closed are more destructive. I inclose a specimen of mildewed Industry.—W. ELLISON TAYLOR, *Beaverton, Ont.*

THE specimens sent us by Mr. Taylor contain the larva of the gooseberry fruit-worm. It is of a reddish-yellow tint, its body tapers a little toward each extremity and its head is small, brown and horny looking as described in Prof. Saunders' work on Injurious Insects, and one of its distinguishing characters is hanging down by a thread when disturbed. When full grown this worm transforms into a small brown crystalis, which lies hidden among the rubbish on the ground until about the end of April, when the moth comes forth and is prepared to deposit its eggs upon the young gooseberries as soon as they are formed.

The gathering of all the affected berries and destroying the larva they contain is about the only plan that has been advised. Dusting the bushes with air-slaked lime in spring time is also said to be useful by deterring the moth from depositing its eggs.

## OPEN LETTERS

#### Crops in Stormont.

SIR,—The clerk of the weather has dealt so ill with us we have to own up, to having trusted too much to appearances, in our report last month. We predicted a fair crop of apples, and had blossom enough to feel sure of it, but apples are a complete failure with us, and the few we have are as badly spotted as ever. Surely a wholesome rebuke comes here to our grumblers who last year had it that apples were so plentiful they were not worth growing. They will miss their apple sauce this year, and we can hardly pity them. Strawberries were a failure with us. Last year we picked 1,000 baskets off quarter of an acre; this year it took one and three-quarter acres to make up the same amount. The few raspberries, currants and gooseberries we had, the birds devoured. We begin to see the pith

of friend Dempsey's advice to us on this point—grow enough for the birds too—but their appetites are enormous, they open a market for us greater than our limited space can supply. They hay crop here is heavy, but to make hay when the sun shines may be good advice if you have the sunshine; this season we have to take it by starts, between showers, which fail us never. Constant rains have done us much damage.

Will you or any of your readers kindly tell us how to kill Poison Ivy. We have it growing around the roots of trees where plowing is unpracticable.—JOHN CROIL, *Aultsville, July, 1889.*

#### A New Strawberry.

SIR,—THIS berry originated in the garden of S. D. Birchard, in Township of Scott, about forty

miles north of Toronto, in 1881. First noticed the berry as a seedling, and were so favorably impressed that we picked the plants of that kind, and when we moved to Watford we brought a few with us and continued to increase them, and have tested them and found them perfectly hardy. All callers praise them and say they are nicer than others previously handed to them. They are preferred in the market to anything we have. It is preferable to Crescent in hardness and flavor. The plant is a vigorous upright grower, and the dark, glossy green foliage covers the fruit well from the sun. It is a perfect blossom and a good fertilizer for Crescent. We use no other. Fruit is very firm, perfect in form, inclined to be wedge-shape sometimes; color, deep crimson, pretty much same to centre when fully ripe. It is of a pleasant rich flavor, and about size of Crescent. It is a good shipper, firmer than Crescent, and a favorite with consumers. It is a few days later than Crescent.—O. F. BIRCHARD, *Kingscourt, Ont.*

### Big Berries.

SIR,—MR. W. S. TURNER, of the Cornwall Manufacturing Co., is probably the most successful amateur gardener in Cornwall, having the faculty of taking an enormous quantity of stuff off a limited space, which after all, is the measure of a gardener's ability. Mr. Turner has paid a good deal of attention to strawberries, and his crop this year is something out of the common. He favored us on Monday with a basket which was well filled with twenty berries, several of which measured over six inches in circumference. They are of the Jessie variety, which, with the Bubach, Mr. Turner considers the best variety he has struck yet. They are even larger than the Sharpless, and of a better shape, while the flavor is rich and luscious. We would advise anybody who has a strawberry patch to try Jessie. She's a daisy.

To the above I would call particular attention as also to another case I will cite giving evidence the most conclusive, that it is the thoroughly cultivated ground only, be the extent large or small, that pays.

Referring readers to Mr. Turner's excellent letter on Amateur Gardening, in the July number on the HORTICULTURIST, which I have read at the Farmers' Institute meeting at Cornwall, and feel safe in saying it was the best paper on Horticultural matters laid before the meeting, and none met with a more favorable reception. I think because it was short, but not too short to give all the information the writer meant to convey.

Read his letter again, friends, in it you'll find *nilum in parvo*, and I think you will agree with me that I am giving Mr. Turner no more than his due.—JOHN CROIL, *Aultsville.*

### Robson's Seedling Plum.

To the Secretary F. G. A., of Ontario:

DEAR SIR,—Knowing how deeply you are interested in any horticultural novelty, I trust you will pardon me for venturing to enlist your attention by describing a seedling plum which I have growing in my garden, and which by sheer accident I discovered it possessed the property of transforming itself into a soft, flexible and delicious prune perfectly cured, and will keep the year round without the least sign of becoming hard or dry.

The way I discovered it was by simply leaving this plum in a closet in my tool-house with many others, to make an assortment for our Fall show last year, and having more of this kind than was wanted the balance was left in a small wooden tray all the winter. On opening the closet this spring I was much surprised to find this plum in a perfect state of preservation, very inviting in appearance, and Mr. and Mrs. Thomas Beall pronounced it excellent in taste.

Some of my horticultural friends think it must be valuable, to dry without sun or fire heat.

I would have sent you a specimen, but, having only two left, and they being in a mutilated state by opening them, to show the pit and flesh to many parties. I should be much pleased to have your opinion (or that of any of your numerous subscribers) respecting this—to me and many others a novelty in Canadian plums.—Yours truly, W. M. ROBSON, *Lindsay.*

### A Correction.

SIR,—A typographical error in my letter, in the July number of the HORTICULTURIST, respecting the Larue apple, causes the name of an old family in this section to appear as Snell. I should be Buell. The error is not of any great consequence, but as some of your readers might wish to communicate with the present owners of the property where the Larue apple originated, it is just as well to correct it.—J. J. BELL, *Brockville, July, 1889.*

### Fruit Prospects at Orillia.

THE frost destroyed our grape blossoms, with early tomatoes and beans, but was just too late to hurt the apples, which are as yet quite too thick on the trees. There is a second crop of grape blossoms which cannot ripen. Wild plums are a full crop, which has not been for years. Plenty of gooseberries, tame and wild. Wild strawberries, irregular; garden ones, rather late. Pears numerous on the few bearing trees. A good season for newly planted trees and grafts.—J. CUPPAGE.

### The Jessie.

SIR,—Of the three plants, Jessie Strawberry, I received from you in the spring of '88



only one is living. That one is a strong plant, vigorous grower, and has borne a very heavy crop of large berries.

The largest one measured five inches around one way and four inches and a half the other way. I did not measure the diameter. It was quite ripe all through and of excellent flavor. I think the Jessie is all that it is claimed to be.—Yours truly, THOMAS R. HUGHES, *Cote des Neiges, Montreal, Que., July 2, 1889.*

#### Turpentine for Black Knot.

SIR,—The black knot has made its appearance on two of my plum trees. As soon as I saw it I thought I would try the linseed oil, but I had none at the house; but I got some spirits of turpentine that I had in the house. I thought I would cure the black knot or kill the tree. I applied the turpentine with a feather, and in ten days the black knot was killed, and the unaffected part of the tree not any the worse, only where I had dropped the turpentine on the leaves they turned yellow.

Hoping this will be of use to the fruit growers, I remain respectfully, LEVI BRILLINGER, *Collingwood, July 4th, 1889.*

#### Off to China.

SIR,—A line to say good-by. I am off two days hence for Vancouver, Yokohama, Hongkong, Singapore, India, etc., so shall not be at the horticultural meeting at Ottawa next winter. I did try hard, having this in view, to have the meeting held in Montreal last winter.—Yours truly, C. GIBB, *Abbotsford, Que., July 5th, 1889.*

#### The Crandall.

SIR,—As to the productiveness of the Crandall, it this year beats all we have ever claimed for it by far. Can you not come and see it next week, in the interests of the Fruit Growers' Association of Ontario. We think it will pay you to do so, and see for yourself that the Crandall is the most productive of all small fruits of any kind or name.—Very truly yours, FRANK FORD & SON, *Ravenna, O.*

#### Using Liquid Manure.

SIR,—I appreciate your publications very much, and have tried carefully many hints published therein, in the cultivation of grapes, strawberries and raspberries, these being the only fruits I have yet tried my fortune on. I have this year an abundant crop of strawberries and a fine prospect for raspberries. The strawberries average an extra size, many measuring four to five inches in circumference. The plants are exceedingly full and strong, on some of which the berries just hang in clusters

of one dozen to two, dozen each, and some plants have three to four clusters. I received the plants from Mr. Robinson, Owen Sound, two years ago. They were good plants, but I attribute my success to my persistent watering with liquid manure. This hint I saw in a Scotch paper last year, that to make a success of strawberries, raspberries and roses use liquid manure freely.—I am yours truly, J. D. HENDERSON, *Toronto, Ont.*

#### The Conn Gooseberry.

SIR,—Per to-day's mail I send you four King Conn gooseberries just picked to-day. I got six bushes from Mr. Conn at Kemptville, one year ago, and they had a few berries on last year and they made good growth, and this year are just covered with berries such as I send you. I have Smiths and Houghton and Industry growing in the same row with these King Conns, and the others are all more or less mildewed, but the Conn shows no sign of mildew, and the foliage looks as though it were made of green leather. I am delighted with this variety and would heartily advise every person to invest in a few, as they are first-class in every respect.—LEVI SELICK.

#### Varieties of Small Fruits at London.

SIR,—I have three acres of Brandywine raspberries, which I think has no equal on the Continent. It is a large berry, firm, of excellent quality, and hardy in every respect. I have one acre of the Turner, some Cuthbert and Shaffer's Colossal, but they are nowhere compared to the Brandywine. I have one acre of the Mammoth Cluster, a splendid berry and a good bearer, also some of the Kittatinny. The price of raspberries at the present time in the city of London, wholesale, is ten cents per box; which I think pays well indeed. I intend to enlarge and set out more fruit. I expect to take a trip to Grimsby and St. Catharines this fall, and so inspect some of the fruit growers' gardens in the Niagara district. The Grape I received last year made a splendid growth, and the Vergennes I received this spring was doing well when the heavy frost took it, but it has recovered and is growing nicely now.—JAMES A. POOL, *London East, July 15th.*

#### Russian Letter.

SIR,—I thank you very much for your kind reply, and also for sending me the very interesting Report of the Fruit Growers' Association of Ontario. Will you have the kindness to say to the members at the next meeting of that respectable society, that I wish them to accept my best wishes for the prosperity of that body, but also that I am ready at any time to send them, without remuneration, some grafts and seeds of our fruits, in response to any selection

they may wish to make, and that I take the most lively interest in all the affairs of the society. It is to be regretted that the Russian productions have lost their true names in America, which is the only means we have of knowing the kinds you lack, and it is therefore difficult to complete your collections. It would be desirable that besides the English name, there be placed, in parenthesis, the corresponding one in Russian. They say that the nomenclature of fruits is not established with us; but tell me, on the other hand, where it is established? In America only perhaps, and that because the country is young and the varieties are new. But bye-and-bye, as in Europe, each fruit will have a dozen synonyms.

Yet, in spite of the chaos of our nomenclature, we have some persons who know perfectly well the Russian fruits, but it is not necessary to search for them among the foreign botanists at the botanic garden of St. Petersburg and at the Academy of Peter the Great of Moscow.

I would like if you would send me the following: (1) As many scions as possible of the Idaho Pear, which interests us very much. (2) An assortment, pretty large, but choice, of Canadian apples, 10 or 15 scions of each variety. (3) Some seeds of grapes which ripen in Canada. (4) Some stones of Canadian plums.

I will send you next winter for distribution among the members of the Society, some scions of "Stone-Antonovka," some bushes of "Koslov Morello" and some pears which are hardy.

I will send you from time to time some notes of Russian fruits and vegetables which may be cultivated in Canada.—JAROSLAV NIEMETZ, Counsellor of State, *Odessa, June 25, 1889.*

### The Belle de Boscoop Apple.

SIR,—Would you, or some of the subscribers to your valuable paper, give me information about the keeping qualities of the Belle de Boscoop apple. I had about one-half bushel off a top graft, and my children found them so good that they disappeared early in January. The grafts made a very vigorous growth, the fruit in shape being very much like Ben Davis and far better in quality, but not quite as well coloured. I sold the last of the Ben Davis on the 8th of June, and if the Belle de Boscoop was as good a keeper I would prefer planting it. I began selling Yellow Transparent the last week in July and finished the Ben Davis the first week in June, making a long season to sell apples in.

This cold wet June is causing our Fameuse to spot. I have always noticed that a season too cold for corn to grow is a time for apples to spot also. By the appearance of the trees at the present time, those that are free from spot are the Yellow Transparent, Wealthy,

Golden White, Alexander, Ben Davis and Golden Russett, the two last having immense crops. Nothing like Paris green for the tent and other caterpillar. I tried one of the McGee force pumps but they were no use for large orchards; the wooden piston soon wore out and sent as much poison on our faces as on the trees. I would advise our friend Mr. Croil to get the National force pump manufactured by J. A. McMartin, Craig St., Montreal. He supplies the hose, nozzle, etc., ready to be applied to an empty coal oil barrel. I used it on twenty-five acres of orchard and eighteen acres of potatoes. The price was \$12, and I would not do without it for a good deal.—R. BRODIE, *St. Henry, of Montreal.*

NOTE.—We have not this apple, and have enquired of Dr. Hoskins, of Vermont, who writes: "I have no experience with the *Belle de Boscoop*, except so far as to have learned that it is not hardy here.

### Wellington County.

SIR,—I see by the HORTICULTURIST that you received reports from a number of counties giving the results of Jack Frost's sad havoc. So far as this part of the country is affected I might say it is ditto to most of the others. Apples, plums, pears and cherries are very much a failure. Gooseberries and currants are a fair crop. Raspberries very scarce. Grapes of course are nowhere, although a good number of the dormant buds started making new shoots and setting a few bunches of fruit. Still the season is too short for their maturity. So far as apples, plums and cherries are concerned they won't be all lost for they required a rest from last year's production. I may state to you that this has been a year of discovery with me. I have really solved the problem of effectually stopping mildew on the gooseberry. My Whitsmiths and Industries were badly affected with it but I saved both bushes and crop in good order. I also think I have discovered how to prevent the black currant borer. None of the black currants have dropped off this season so far, and the gooseberries much less than formerly and if I had repeated the operation with the last I believe my success would have been all I could expect. I have also succeeded in growing both the grape and plum from green cuttings (not bad for an amateur) although I presume it is no secret to your professionals.

I am glad to see the HORTICULTURIST keep abreast of the times. It is now a valuable dispenser of knowledge in its sphere.—F. W. PORTER, *Mount Forest, Ont., 25th July, 1889.*

### Encouraging Words From the Cold North.

I SEND you by this mail samples of the Vladimir and Wragg cherries. The Vladimir

has been growing on my grounds for four years and appears as yet to be quite hardy. It is of a low growing bushy habit, but as mine has been planted in such a place as to be mostly below the snow line in winter, I would not like to speak positively as to its cold-resisting properties when entirely exposed. The indications, however, are that it will be quite "ironclad" enough for our inclement winters. Unfortunately the fruit is not as good as we would like, but will do where we can get no better.

The Wragg cherry mentioned above is one of which I hope much. It was sent me three years ago from Central Iowa where it originated. There, it has been tested for fifteen years with favorable results. The fruit is large, of a darkish red colour, resembling the English Morello, and a great improvement in quality on the Vladimir. The tree is an early bearer and has every indication of being hardy enough for our test winters without injury. Mine is still only a small tree and I would not like to speak too confidently of it till I have a more extended trial of it.

Our northern friends should certainly give it a fair trial and I do not think they will be dis-

appointed.—A. A. WRIGHT, *Renfrew, July, 1889.*

### The Detroit International Fair.

Your kind favor of the 20th inst., arrived during my absence from home, in attendance upon the summer meeting of our state Horticultural Society and at Detroit, to effect the preliminary arrangements for our department of the fair.

The buildings and grounds are already in a state of forwardness; and the arrangements are being matured on the most permanent and effective basis; the convenience of access from the city by street cars, railway, and steamer could hardly be improved, and the roomy and generally satisfactory arrangements of the building promises to be all that need be desired.

I regret that your Society cannot exhibit as such; am greatly obliged for your expressed purpose to invite attention to the matter through the HORTICULTURIST; and trust to receive individual exhibits as suggested. I will send premium lists whenever desired.—T. T. LYON, *South Haven, Mich., July, 20th.*

## OUR FRUIT MARKETS.

### Montreal.

We sold some Canadian Peaches to-day, \$1.40 per basket; blackberries, 10 to 12 cts.; blackrasps, 7 to 10 cts.; raspberries, 11 to 13 cts.; apples, all Southern stock, selling well, \$3.25 per bbl. About 1,500 bbls. per week arrives of that stock.—VIPOND, MCBRIDE & Co.

We have to report our market a little lower on red raspberries to-day. They sold as follows this morning:—Red raspberries, 12 cts.;

black raspberries, 7 cts.; black thimble berries, 14 cts.; Canadian peaches, per basket, \$1.50; red cherries, \$1.50. We have had a few Canadian pears on this market, but they were very small and poor, but we expect that the next few days will bring in a good many; and, as the crop is large, we would advise our shippers to get them into market as soon as possible. Apples selling at \$3.50 per barrel. All consignments shall have our very best care.—J. J. VIPOND & Co.

## OUR BOOK TABLE.

ANNUAL REPORT OF THE SECRETARY FOR AGRICULTURE, NOVA SCOTIA, 1888.

A. B. C. IN CHEESE MAKING, a pamphlet by J. H. Monard, Winnetka, Ill. Price 25c.

PRIZE LIST, Industrial Exhibition, Toronto, September 9-21, 1889. H. J. Hill, Manager.

CALENDAR QUEEN'S COLLEGE AND UNIVERSITY, KINGSTON, CANADA, for year 1889-90.

REPORT AGRICULTURAL EXPERIMENTAL

STATION OF THE UNIVERSITY OF MINNESOTA, E. D. Porter, Director.

PRIZE LIST CENTRAL CANADA FAIR, OTTAWA, 9th to 14th September, 1889. Office, 39 Queen Street, Ottawa.

PREMIUM LIST DETROIT INTERNATIONAL FAIR & EXPOSITION, September 17th to 27th, 1889. C. W. Robinson, General Manager, Detroit, Michigan. The Horticultural Department of this Fair is to be under the charge of

the Michigan State Horticultural Society, and therefore is of special interest to us as members of the Ontario Fruit Growers' Association. A letter has been received from President Lyon, of New Haven, Michigan, asking that we should make an exhibit as an Association. This the Directors thought not best to attempt, but at the same time would call the attention of all members of our Association to this Fair, who may receive prize lists on application to Mr. T. T. Lyon. His letter also appears in another column.

HORTICULTURE IN MINNESOTA.—We have just received the Report of the Minnesota State Horticultural Society, a well

bound volume of 477 pages. It differs from ours in several particulars, and especially in having a large number of sub-reports from various committees, and from the various local horticultural societies of the state. This latter feature might, perhaps, be very wisely adopted by us, if the secretaries of all local societies in Ontario would send in their addresses and in response to our call, give us some account of their year's work for publication. There are also two dozen committees on such subjects as Floriculture, Small Fruits, Vegetable Gardening, Deciduous Trees, Russian Fruits, Forestry, Ornithology, etc., etc., all of which are expected to report at the annual meeting following their appointment.

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### GARDENER'S SONG.



H! a gardener's life is as pleasant a life  
 As a working-man's can be:  
 'Tis a glad pursuit to plant the root,  
 And nurse the flower and tree.  
 His life is set to ceaseless song,  
 Sweeter than poet can sing,  
 Warbled in notes from the feather'd throats  
 Of the birds, from summer to spring.  
 And doth he not make the wildest brake  
 Gay as a conqueror's fleet?  
 For his strong right hand is the magic wand  
 That brings fresh flowers to our feet.

With a sneer or a frown a man may look down  
 Upon many ignoble trades;  
 But Purple and Pride even dare not deride  
 The work of the King of Spades.  
 The oldest craft known he claims as his own,  
 The only work Heaven thought well  
 Should be done by a man ere a trouble began,  
 Or the "grand old gardener" fell.  
 Then the men of the spade should be proud of their trade,  
 Invading no crowded mart,  
 Whose daily toil gives wealth to the soil,  
 And joy to the home and heart.

—Rowland Brown, in the "Gardener's Magazine."

# Notice to Subscribers.

NEW SUBSCRIBERS or renewals during the summer will have the privilege of selecting by post card from the next list of plants, which will be published in due time, or they may select from the old list, which was as follows: (1) Niagara Grape, (2) Vergennes Grape, (3) Princess Louise Apple, (4) Paul Neyron Rose, (5) Baron de Bonstettin Rose, (6) Jessie Strawberry. These may be had in the fall in September or October.

Anyone sending in a list of subscribers may either have cash commission for his trouble, or else select **one of the above list of plants for each new name.** Also any one sending in a list of five names, old or new, may have a copy of Volume III, of this Journal **FREE**, in addition to the above.

Sample copies sent free to anyone who will use them in the interests of our Association, or sent direct from this office, free of charge, to any persons whose names are sent in to the editor. Back numbers on hand from Jan. 1, 1889.

SUBSCRIPTIONS SHOULD BE SENT IN TO

*L. WOOLVERTON, Grimsby, Ont.,*

*Secretary of the F. G. A. of Ontario.*

## ADVERTISING RATES.

In the CANADIAN HORTICULTURIST, published by the Fruit Growers' Association of Ontario, at \$1.00 a year; average circulation, 3,000 copies per month, among all the leading Fruit Growers and Gardeners of Ontario, and distributed to 1,000 post offices.

Owing to the increasing circulation, and growing demand on its space, it is found necessary to advance the advertising rates, according to the following code, which will be strictly adhered to:

|                   |           |                           |
|-------------------|-----------|---------------------------|
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