

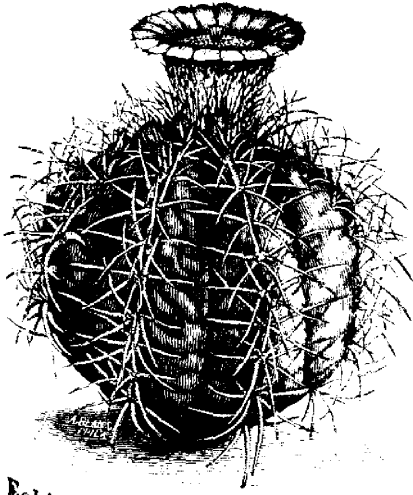
Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

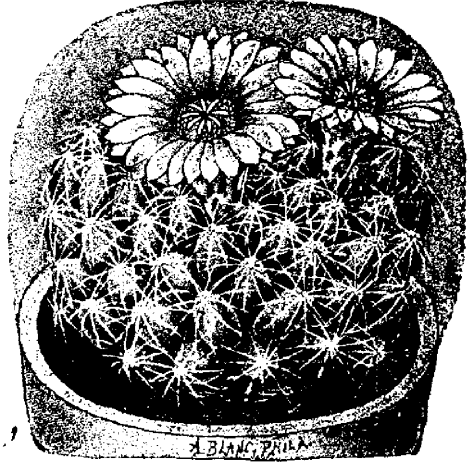
Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation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

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

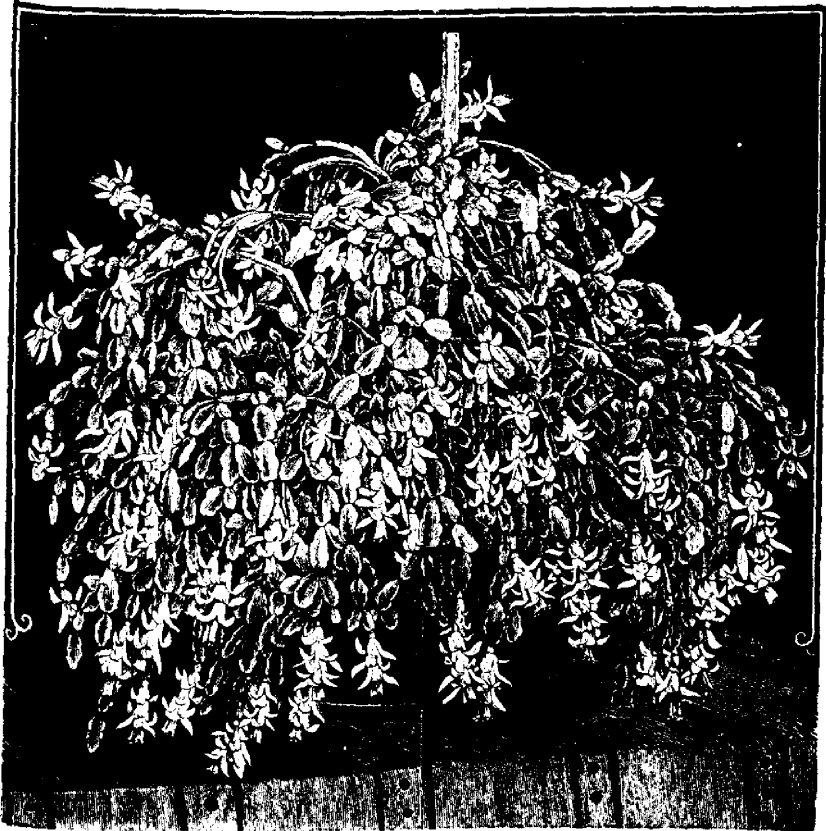
SPECIMENS OF CACTI.



Echinocactus horzonthalonius.



Mamillaria decipiens.



Epiphyllum truncatum.

SOME INTERESTING SPECIES OF CACTUS.

In a former number we called attention to the Cactus tribe as presenting some very remarkable forms of plant growth, such as were full of interest to every lover of nature, and at the same time yielding flowers, in many instances exceedingly beautiful in form and coloring, and often of most delightful perfume.

In this number our readers will be pleased to see a few more examples drawn from nature and engraved by Mr. Blanc, of Philadelphia, who has given much attention to the study and cultivation of this unique family.

Mamillaria decipiens—He has found to be very easy of cultivation, enduring rough usage, and yielding in abundance its very large yellow flowers, which last for several days.

Echinocactus horizonthalonius—Is a beautiful species found growing in strong soil at the summit of hills. The flowers are funnel shaped, of a purplish pink color, the sepals being tipped with a darker shade of purple, producing a very pretty effect. The stamens are very numerous, and the contrast between the yellow anthers and the white filaments which support them gives a very pleasing appearance to the flowers.

This variety is also very easy to grow and is one of the finest of this genus.

Epiphyllum truncatum—Is probably more frequently met with as a window plant than any other variety of Cactus. The plants of this genus are of a free, quick growth, hence they soon attain to a considerable size; being profuse flowering, and the flowers marked by many rich and bright shades of color, they are attractive objects for a considerable length of time.

Mr. Blanc gives the following directions for their cultivation. "The best system is to employ a small proportion of manure, say one fourth of the bulk of the soil, and to give what further assistance may be needed either in a liquid state or as a top dressing. The *Pereskia*, upon which *Epiphyllums* are usually grafted, is a strong rooting, and quick growing plant, absorbing moisture and nutriment from the soil very rapidly; therefore when it is bearing a large head of *Epiphyllum* the assistance afforded should be of a most liberal character, and it is only by such means that the finest and most abundant flowers can be produced. After flowering, the soil may be allowed to become partially dry

"for a few weeks, only giving a little water to prevent the branches from becoming flaccid. As growth is resumed the water supply may be increased, and with occasional syringings progress will be rapid in a suitable temperature. As much depends upon a thorough maturation of the growth, the plants must at all times have a position fully exposed to the sun, as they never need shading, and with proper attention to ventilation to avoid rendering the growth weak. good results may be confidently expected."

THE ANNUAL MEETING.

The annual meeting of the Fruit Growers' Association of Ontario will be held in the Council Chamber in the city of Toronto on Tuesday evening, the 14th of September, 1886, at eight o'clock p.m. The President will deliver his annual address, and the officers for the ensuing year will be elected. The Directors will meet as above, at 7 p.m. sharp, as business of importance is to be transacted. Full attendance requested.

QUESTION DRAWER.

EUONYMUS.

DEAR SIR,—I herewith send you some leaves of a shrub which I have growing in my garden with the request that you give the name through the columns of the *Horticulturist*.

The shrub in question was a present from Mr. Wm. McArthur, of Dunganon, Ont., about a year ago, and was potted when received.

During last fall and winter it made no growth whatever, and in the spring I transferred it to the garden, and it has grown amazingly this summer.

Mr. McArthur believes the shrub to be a species of "Japonica." It does not, however, resemble in the least any

specimens of "Japonica" which have yet come under my notice.

Please state whether the shrub is sufficiently hardy to remain in the garden throughout winter.

ROBERT HARRISON.
Ashfield, Co. Huron, July 22, 1886.

REPLY.—They are leaves of an evergreen shrub, not hardy in our climate, introduced from Japan. It is known as "*Euonymus Japonicus variegatus*," the variegated Japanese *Euonymus*. It will not be likely to survive the winter if left in the garden.

THE DEVONSHIRE CURRANT.

DEAR SIR,—I send you to-day a specimen of a new Hybrid Currant, which I name "The Devonshire," it having originated in Devonshire, England.

It is a cross between the Black and the Red Currant. In England, where the Black Currant was more or less subject to mildew, *this* did not mildew. It is claimed for it:

1. To have the black currant flavor and "medicinal qualities."
2. To have the same freedom from "currant-worms."

3. To be much *sweeter* and *milder*.
A fair test of "No. 3," would be to taste it *along with the Black*.

I am bringing forward two or three hundred cuttings, and hope the "Devonshire" may be considered an acquisition by those who fancy the "*Black Currant* taste" in fruit.

I am yours,
W. W. SMITH.

NOTE.—We received the currants by post. The foliage resembles that of the Black Currant in its odor. The bunches of fruit are short, no longer than those of the ordinary black currants. The berries are hardly as large as the average of Black Naples, and of

a peculiar dull reddish-brown color. We suspect that the fruit could not have been quite ripe, for in flavor they were more acid and less mild than Lee's Black gathered for comparison.

CRANBERRY CULTURE.

Can you give me the system of Cranberry culture and the conditions necessary to success? Can they be raised from the seed, or would it be better to set out the plants? Do you know any place where cultivated plants can be obtained at a reasonable figure?

Yours truly,

S. CORNELL.

Theford, August 4th, 1886.

REPLY.—The paper on Cranberries, by Vice-President Allan, which will be found in this number, will answer your inquiries as to cultivation. It would probably be a slow process to raise them from seed, cuttings are usually employed. We do not know who has them for sale.

PRUNING GRAPE VINES.

DEAR SIR,—I read with much pleasure your very minute and interesting instructions relative to the growing of grape vines by amateurs in the April Number of the *Canadian Horticulturist*, and am, I trust, profiting by them.

I would like you to give me your advice on this matter. Some of my vines are making excellent growth—an improvement on my previous experience—and, besides making long shoots, are throwing out vigorous laterals. Now, I wish you to tell me how I am to treat these. Let them grow, or cut them off? If this latter, how will the bearing bud for the following year be affected?

Kindly say in your next Number, and oblige,
Yours truly,
J. L. THOMPSON.

Toronto, 29th July, 1886.

REPLY.—You might pinch off the ends of the laterals with advantage. This will tend to strengthen the buds at the base. All severe summer pruning is to be avoided.

DANDELIONS IN THE LAWN.

SIR,—Can you inform me through your journal how I can improve my lawn, it has become full of dandelion. Your attention will oblige much.

Yours respectfully,

S. BEGG.

Innerkip, Ont., 4th August, 1886.

REPLY.—The only way known to us to get rid of them is that of cutting them so far below the crown that the roots will not sprout again, and removing the portion thus cut off. We remember to have seen some laborers doing this on the lawn of an eminent horticulturist in Rochester, N.Y., some years ago, and feel sure that if there had been any better method known to him, he would have employed that method.

CORRESPONDENCE.

HARDINESS OF WEIGELA ROSEA.

In the February Number of your valuable journal you ask for more information regarding the hardiness of the "Weigelas." I have a "Weigela" which has for eight years occupied a north-western exposure (perhaps as cold a situation as is to be found in the County of Huron), and it thrives admirably without any protection whatever, has never been damaged by frost, and is each year the admiration of all who see it, on account of the density and beauty of both foliage and bloom. It is the "Rosea" variety.

Yours respectfully,

ROBERT HARRISON.

Ashfield, Co. Huron, July 22, 1886.

THE PEWAUKEE APPLE—SOME CORRECTIONS.

I always look over the pages of the *Horticulturist* with much interest. In looking over the August Number just at hand, I have stopped to read and re-read the funny note of Mr. Simon Roy, under the heading "Pewaukee Apple." At first I thought it a burlesque on the writings of sidewalk horticulturists, but on second reading he seems really in earnest. Permit me to correct some of his statements.

1. What we know as the Siberian crab is not indigenous to Russia in Europe.

2. The indigenous crab of Central Europe is a forest tree of considerable size, and on the timber borders where it spreads out apple tree fashion, it produces great crops of true winter apples of much better quality for culinary use than our native wild crab.

3. There is no evidence that the Borovinka tribe of the apple to which the Duchess belongs sprang from the native crab of Russia or of Siberia, but there is much evidence favoring the idea that it was introduced from the north-west Provinces of China.

4. If Mr. Roy will visit Saratov on the Volga this fall, he may see orchards containing from ten to twenty thousand trees, nearly all of which produce real Simon pure winter apples, which are sent in immense quantities to Moscow on the north-west, and to Perm and other points on the north-east.

5. The summer heat over a large portion of the black soil section of Central Russia is high enough, and the season long enough, to ripen dent corn, melons and tomatoes.

6. Our common winter apples, which have proven tender over a large part of the west and north, did not originate from an Asiatic crab, but from the indigenous wild crab of west Europe.

7. Mr. G. P. Peffer, the originator of the Pewaukee apple, is one of the most careful and truthful of our western horticulturists, and his statements as to the origin of the Pewaukee, Clark's orange, etc., may be safely taken without discount.

J. L. B.

NEW ROSES.

Of the new roses which have been sent out the past two or three seasons there are a few which created such a *furor* on their appearance, or were heralded by such a special flourish of trumpets, that their names are now household words among all who take an interest in roses, even including those who cannot count these famous plants among their possessions, or where the famed beauty of their blooms has never yet been seen.

As I have now bloomed (with one or two exceptions) all mentioned below, (comprising all the most noted of newly introduced roses), and have also seen most of them in bloom in other places, and under other conditions, and have thus gained a little practical experience on the matter of which I speak, I thought perhaps it would not be out of place to say a few words to rose-lovers on this head through the columns of the *Horticulturist*.

I know that descriptions of all these roses can be found in the leading rose-growers' catalogues, but the descriptions are necessarily so brief that there is no room for faults, and there appears often to be such a cheerful and commendable desire to look on the best side of things that we sometimes fail to get a correct estimate from this source alone.

White Baroness, introduced to the rose-world three or four years ago by Paul is a rose with the same stiff growing habit as *Baroness Rothschild*. It is a slow, poor grower, and like most

roses of this type, is scentless. It is almost white, and is one of the most symmetrically formed and most beautiful roses that has ever been sent out.

Merveille de Lyon, sent out about the same time by a French grower, is another rose of the same type—scentless, or nearly so, and a poor grower also. The blooms are larger than White Baroness, and of a deeper shade of color. It is a very beautiful rose.

Queen of Queens, sent out about the same time by Paul, will, I think, prove to be a very valuable rose. It is a good free grower, with large, finely-shaped blush-colored blooms. The only fault it has is that it is without perfume, or nearly so. I predict that this rose will yet be considered a standard variety. This and the other varieties mentioned above are classed as Hybrid Perpetuals.

Sunset (a Tea rose sent out by Peter Henderson), the next in order, was sent out a year or two later. With me it has proved to be a poor grower, and very variable and uncertain in size and color. It occasionally glows in rich tints almost equal to the colored plates which were sent out of it, but more often it is a very washed-out, weak, nondescript sort of a color in no way suggestive of its high sounding name, in no way resembling the glorious sky or cloud painting of a real sunset. I cannot claim to have been successful in the cultivation of this rose. I am not quite sure yet whether the fault is with myself or with the rose.

William Francis Bennett, sent out about a year ago, a Hybrid Tea, and raised, I think, by Bennett, came out with a greater flourish of trumpets than any other of these new roses, and has so far (among amateurs at least) given the least satisfaction. Most persons after purchasing a new rose at a high price expect at its blooming to find it some-

what larger, more perfectly formed, and more double perhaps, than any rose that they have before seen. Although this rose is of good size it is very loosely formed, and has so few petals as scarcely to be called semi-double even. Its good points are that it is of a good red color, is very fragrant, and in the bud and half-opened state is very handsome. I do not think it will do so well outdoors as *La France* and some other Hybrid Teas.

American Beauty, a Hybrid Perpetual, came out next in order. Although not a rose of the very highest style of finish, it possesses a number of good points. It is of a very deep rose color, or carmine (not crimson, as some of the florists' catalogues have it), of good size, very fragrant, a very free blooming rose, and the plant is a vigorous grower. With all these good things in its favor, it will no doubt yet take its place in the list of good standard varieties.

The last introduced Hybrid Perpetual Rose of particular note is *Her Majesty*. This is claimed by the introducer to be the largest rose yet raised. It has not yet bloomed with me, and all I can say of it from personal observation is that it is the stoutest growing rose that I have even yet seen. It is somewhat of the type of Baroness Rothschild, but with thicker and larger shoots, and stouter thorns, and more glaucous foliage than that variety. Those who have seen it in bloom inform me that the flower is as large as Paul Neyron, and of a more delicate and better shade of color. If so it will prove a great acquisition.

These are the most noted of the new roses of the past few seasons with the exception of the Marshall P. Wilder, which came out a few years ago and is now pretty well known. It is enough to say of it, that although considerably like Alfred Colomb, it has proved itself

to be a thoroughly good rose and well worthy of a place in any collection.

FREDERICK MITCHELL.

Innerkip, Aug. 7, 1886.

THE THRIP OR BEETLE HOPPER.

DEAR EDITOR,—In my communication on roses, published in the August number of our magazine, you note that my remarks on the Thrip and its place of advent in the spring is not in accord with accepted Entomological teaching. In making the statement I did, that the Thrip came out of the bark of the rose, I did not do so in any way in a spirit of controversy or criticism, or with the idea that I was starting any new theory, but merely stated what I believed, and still cannot help but believe, to be a fact. All that I can say is that the rose-shoots for some days in the spring are as I described them to be; the Thrip standing out on some very thickly at right angles to the bark and in all stages of forwardness. This any one can, if they take the trouble, verify for themselves at the proper season. I have also taken up roses that have passed the summer in the open air, and potted them in entirely fresh earth, and placed them under glass when the Thrip has made its appearance in the winter in just the same manner as it does on the outdoor plants in the spring. In all statements that I have ever made in the *Horticulturist* I have tried to be very guarded and state nothing but what I knew to be facts. I trust that it will prove that I have not made a lapse in this case. In reply to a question from me, Mr. Webster, of Hamilton, one of our leading rose-growers and an enthusiast in rose culture, writes as follows:—"As regards winter quarters of the Rose Thrip, it is in the larvæ form and in the bark of the rose. They can be seen working out with the naked eye,

but much easier with a glass. I know this to be a fact as I have seen it, and I have no doubt but that many others have done so too."

I have also written an eminent Entomologist on the matter and when he replies I will, if he permits me, send you his opinion.

F. MITCHELL.

Innerkip, Aug. 7th, 1886.

FRESH STRAWBERRY NOTES.

BY T. C. ROBINSON, OWEN SOUND.

Perry—This has proved moderately productive of exceedingly handsome large fruit. With hill cultivation doubtless the fruit would be very large, but all the young plants were not removed and the weeds got in, so that I cannot say much more about this famous variety except that it seems to require clean cultivation with runners cut. The quality is inferior to that of Jersey Queen and of Prince of Berries.

Woodruff—Is abundantly productive, even in weedy matted rows, of large rich-looking fruit; of good quality. But the berries are a little soft for market, and the shape is irregular.

Dollar—Is a large and very handsome berry, of excellent quality, and firmer. I think, than any other strawberry I have seen, but it does not bear well with me.

Sucker State—Grown in matted rows, gives a great abundance of good-sized, uniform, and otherwise handsome fruit, of good quality. I think this variety well worthy of a better name and further attention.

Daisy (Miller)—This is a miserable weed on my grounds. The berries are few, small and sour.

May King—I had hoped a great deal from this variety. It proved about as early as its parent the Crescent, the berries rather firmer, of good size, very smooth and handsome, and the quality

really delicious for a market sort. It is abundantly productive too,—but the berries mildewed. Only one sort on my grounds suffered similarly; this was the Early Canada, which mildewed abominably to the great detriment of its crop. One patch thereof was near the May King, and may have caused the disease in the latter. I certainly hope the May King, in another season and in a better situation than the hot slope where I have it, will be all right, for it is otherwise so fine; but the facts must go as they are.

Parker Earle—Is another splendid sort with just one "but" among its characteristics. The foliage is variegated, and last year this *variegation* assumed such a straw-colored tint as to present the aspect of disease. But it was supposed this might be the result of so extreme a change of climate, (it is a seedling from Texas). This hypothesis appears plausible, for this year the plants, though still yellowish here and there, do not appear to suffer materially in fruiting. In the matted row they have yielded an abundance of large good-flavored berries, which are, without exception, the most attractive I have ever seen. The color is of the richest rose; the shape very regular; conical; slightly elongated; the surface smooth like satin, that glistens as if varnished. If this variety becomes fully acclimatized it must create a stir, as, in addition to its good qualities just stated it is a remarkably vigorous grower.

Cornelia—Is not vigorous enough on my light sandy loam. The fruit is fine but the plants want clay loam and plenty of manure, with clean cultivation. I cannot recommend it for general culture.

Mrs. Garfield—A good grower, and productive of large scarlet fruit of moderately firm texture and fair quality.

It might be in great request for market plantings if we had not the more productive Crescent.

Atlantic—On rich clay loam, with clean culture, this variety is very productive of good-flavored long berries which are firm, very handsome, large to very large in size, and very late. On light poor land the plants make royal attempts to bear well, but they do not seem able to stand the strain of producing berries of such excellence with-out the strong land and clean culture which I have indicated. Still I consider it valuable.

Lacon—"Here's your *Lemonade* in chunks!" In dry weather and on poor land this sort runs more to acid than any other kind I know of. Not the slow watery sour of a just-red Crescent that would make you lean against the fence and wish for a low place to climb, but a rich fierce acid that pitches you over the fence and chases you to the house for the sugar bowl. In vigor of growth and great productiveness the *Lacon*, perhaps, cannot be beaten, and the berry though not very smooth, is fine and large. As a market sort, in seasons varying from moderately moist to im-moderately wet, it will be found, I believe of great value, as it is then sweet and rich. But persons who want a sweet berry *always*, may take warning from a little exaggeration, and plant something else.

Prince of Berries—Is not productive with me. Evidently it must have rich soil and good culture. But it is the sweetest and most delicious strawberry I have ever tasted. The berries are large, smooth, firm and handsome.

Fairy—Many people would like this better than the preceding, because though not quite so sweet it is of rich flavour. The berries are of a creamy white in the shade; but in the sunshine they turn pink. The plants are both

vigorous and productive. The older varieties I purpose describing in a later issue.

SLUG SHOT.

The *Horticulturist* for August has just been received, and after perusal I find a great many inquiries carefully answered. One, however, in regard to Slug Shot does not seem clear. I would therefore beg to request you to publish, for the benefit of the fruit and rose growing public, the fact that from repeated experiments on the trial grounds of J. A. Simmers, situated on Yonge street, Slug Shot has done very serviceable work on all kinds of fruit and rose plants, and has proved itself to be just the thing for the general public. It is cheap, therefore within the reach of all growers, and not only does it act as an insect exterminator, but also as a fertilizer, as it leaves the plants in a healthy condition, which is frequently not the case with other more expensive insecticides. You will agree with me that the public must first hear of successful experiments before being convinced, and a visit to the grounds of J. A. S. will prove what I assert.

Yours very truly,
ANTON SIMMERS,
Firm of J. A. Simmers.

CANADIAN FRUITS AT THE EXHIBITION.

Sir.—The Canadian fruit, preserved in about 1,000 glass jars, continues to be one of the chief attractions of the Exhibition, notwithstanding many of the specimens have lost their natural colors.

This Exhibition cannot fail to be of great benefit to Canadian fruit growers, as well as all other classes, and no efforts should be spared to supplement this collection with fresh fruits at the earliest possible date.

All reports agree that the apple crop

this season in Great Britain and on the Continent will be under the average, excepting in Spain and Hungary, where large crops are reported.

Efforts are being made to extend the markets for Canadian apples directly to all the principal cities of Great Britain and on the Continent where it seems practicable.

I hope to be able to report very shortly upon the prospect of success in this direction, as well as in the matter of cold chambers for fruit shipments in Canadian steamers.

Yours very truly,
C. R. H. STARR,
Canadian Fruit Department.
London, S.W., July 28, 1886.

NOTES ON STRAWBERRIES.

First to ripen was *Early Canada*, where it will succeed it is the best very early sort, it blooms so early and its blossoms are so much exposed that it is quite often injured by early spring frosts except in favorable seasons, hence it is not safe to plant it very extensively for market. In many localities it does not succeed well.

Crescent Seedling is next to ripen. All things considered, this is the most profitable market berry I have grown, although the fruit is not of first quality it is so early and productive. The fruit colors on all sides at once, so that all ripe berries can easily be gathered, and it carries its size well to the end of the season.

Daniel Boone is well worthy of a more extended trial, fruit is of large even size, bright red, good quality and productive.

Wilson appears to require better treatment than it did years ago, to make it profitable. It appears to be deteriorating, although when given extra good cultivation on rich soil, it is still one of the best market sorts. It yields such a large crop of fruit that

will stand shipping better than any of the the newer sorts, except, perhaps, Atlantic.

Manchester is a very fine sort, it is so large, regular in form, good quality and very productive. It gives us such fine fruit late in the season when earlier varieties begin to run small. It has one fault, the foliage blights so badly that it is sometimes very seriously injured. I have not noticed that tendency to blight in new plantations, but the second season, after planting, the crop is often a failure in many localities.

Capt. Jack is still one of the best late market berries I have, when grown on clay loam; does not do so well on sand loam.

Atlantic, fruit of large size, dark-red, good quality, very productive and more firm than any other berry I have seen. The foliage is not as healthy as I would like; it blights somewhat on sand loam, does better on clay loam, and is worthy of a more extended trial.

Prince of Berries still takes the lead for quality, but does not produce enough fruit to ever become a market sort. Every grower should have a few of them to know what first quality is, in the strawberry. I have fruited quite a number of newer sorts this season.

Jewell appears to be altogether the most promising. It is a very strong plant, foliage, thus far, very healthy, fruit very large, of very bright scarlet color and wonderfully productive; although the quality is not the best, I believe it will become a standard market sort.

May King, a seedling of *Crescent*, with perfect blossom, fruit about same form of *Crescent*; a little larger, somewhat lighter in color, with a white bloom, which does not add to its appearance, quite productive; a good amateur sort.

Parry has not done much with me; the plant appears to be tender, does not stand our winters as well as most sorts; unproductive.

Woodruff, a variety from Michigan that has very healthy foliage and produces a large crop of very firm, bright red fruit of large size, well worthy of a more extended trial. It is said to be taking the place of *Wilson*, in Michigan.

Wonderful, from Connecticut. If it is not the old *Windsor Chief*, it is so near like it that I cannot detect any difference either in plant, blossom or fruit.

Jumbo and *Cumberland Triumph* are also alike good for the amateur. Many of the new varieties have not ripened enough fruit this season so that I cannot form any opinion as to their merits. Among the most promising are Ontario, Bubach, Belmont, Lida and Garretson.

W. W. HILBORN.

Arkona, Ont.

ANOTHER NEW GOOSEBERRY.

We have received by express from Mr. J. H. Williams, Goderich, Ont., a sample of the fruit of a gooseberry which he says is a chance seedling raised by him, has been fruited for the last six years, and seems to be quite free from mildew. He states that "it is not a very rapid grower, but stands very erect with strong short-jointed wood, and has less thorns than any that I have seen. When ripe the berries are a beautiful amber color. I have the *Downing*, *Smith* and *Houghton*, but think more of this seedling than of either of them. I would like to have your opinion of them."

The fruit received was not quite as large as the *Downing*, but larger than the *Houghton*, of a light green color, with a yellow tinge, and round in form. The flavour was much like that of the *Downing*. It is not an easy matter to

form an opinion upon the merits of a fruit from seeing a sample in this way. It may have merits that do not strike one on so short an acquaintance. What we want now is a gooseberry that is larger than the Downing, richer in quality, and free from mildew in general cultivation.

THE "OTTAWA" GOOSEBERRY.

We are indebted to Mr. P. E. Bucke, of Ottawa, for the opportunity of seeing and tasting this new seedling gooseberry, raised by him. The branches were well laden with fruit, though some of the berries had dropped off during their transit by mail. The fruit is of a light green color, oval in form, not varying much in size, which is not much more than that of the Smith's Improved. The fruit was nearly ripe, sweet and pleasant.

Mr. Bucke has given the history of its origin in the report of the Fruit Growers' Association of Ontario for 1885 as follows:—

"To show what may be done by any individual having a little patience, I will relate a little of my own experience. Some years ago I planted a Whitesmith and a Houghton so close together that the branches interlocked. I gathered some of the finest berries from the Houghton, and having rubbed them in dry sand to separate the seed, sowed them in a bottomless box in the garden. I was rewarded next spring by a nice little crop of seedlings. I pulled up any that did not come up to my idea of leaf or growth, reserving about one dozen plants; when these came into bearing I destroyed all but one; this is a fine bearer, and has a large berry. Last year I set out a number of layers from the parent, and think I have a good thing in gooseberries. The fruit is larger than Downing's or Smith's, of an oval shape and quite smooth; it has

never ripened yet; having only one bush the berries have been all pulled for canning. I call it the "Ottawa," and if on further trial it sustains its reputation, I will send it round to my friends for trial."

TESTIMONIAL TO THE ORIGINATOR OF THE CONCORD GRAPE.

By the kindness of the venerable President of the American Pomological Society, the Hon. M. P. Wilder, we have received a copy of the Massachusetts *Ploughman*, of the 17th July, giving a full account of a gathering of the leading horticulturists of Boston and vicinity, held on the 26th of June last, for the purpose of expressing their appreciation of the labors of Mr. E. W. Bull, of Concord, Mass., in the cause of grape culture, and especially as the originator of the now widely cultivated Concord grape.

President Wilder presided on this delightful occasion, and inaugurated the proceedings with the following introductory address:—

"Gentlemen,—I have the honor of occupying this chair by the courtesy of my friend Mr. Hovey, by whose invitation we are here assembled.

"I am most happy to be here, and the more so because we are here to do justice to an old friend and associate who has done much to promote the happiness of our people by the cultivation of the vine, and which we desire to recognize on this occasion by some substantial token, too long delayed, of our appreciation of his meritorious services in the production of the renowned Concord grape.

"To say that the Concord grape surpasses hundreds of other varieties which have been originated since it made its appearance, would perhaps be considered extravagant; but it may be said that no other grape during its thirty

years of existence has been so extensively cultivated and generally approved of in New England and many other States. When we reflect on the blessings which this grape has conferred on our country, supplying by its abundance the poor as well as rich, how it has cooled the fevered lip and parched tongue, and added to the comforts and luxuries of our tables, we surely should remember with gratitude the hand that gave it to us. I therefore rejoice that Mr. Hovey in his wisdom has brought us together to recognize this fact, that we may thus publicly testify to its producer our sense of gratitude for this benefaction to our country.

"And now, my dear old friend, permit me in my own behalf and in behalf of these other friends, to assure you of the deep interest we feel in your future welfare. May the remainder of your days be crowned with health and happiness, and when you shall have done pruning and training of the grape on earth, may you and we meet again in the Vineyard of the Lord, and gather fruit from that Vine of which if a man partake he shall never die.

"Where life fills the wine cup and love makes it clear,
Where Gilead's balm in its freshness shall flow
O'er the wounds which the pruning knife gave us
below."

Mr. C. M. Hovey reviewed the history of grape culture in this country, showing that up to the time of the introduction of the Concord grape, there was no variety in cultivation that could be relied upon to ripen its fruit in our northern latitudes; and concluded his remarks by presenting to Mr. Bull the testimonial that had been provided.

To this Mr. Bull responded in fitting terms, and gave the following account of the origin of the Concord grape:—

"You ask me how I got the Concord?"

"At the foot of a wooded hill with a south aspect, a wooded soil and shel-

ter from all winds coming from the north of east and of west, the hill coming down to the road at Hawthorne's "Wayside" on the west and to the same road about 1500 feet east of the "Wayside," forming an amphitheatre of which the road formed the chord—all the conditions favorable to the grape being present, I expected to grow grapes to perfection without difficulty, but this hope was doomed to disappointment; the late and early frosts incident to the valley of the Concord made it impossible to ripen any grape then in cultivation.

"The thought occurred to me that it might be possible to improve the native grape by reproduction from seed, and I looked about for the best grape which met the necessary conditions of hardiness, vigorous growth, size of berry and bunch, early ripening, and, with these conditions, as good flavor as the wild grape affords. At the foot of the hill before mentioned, a woodland path, leading to the river, debouched into the open space, and there I found an accidental seedling, which in 1843 bore its first crop. It was very full of fruit, handsome and sweet, and the whole crop—dead ripe—had fallen to the ground before August went out. Here was my opportunity. I planted these grapes at once and got many vines, most of them harsh and wild, but one of them bore a single bunch which I found ripe on the 10th of September, 1849, six years from the sowing of the seed. This was the Concord. When I found that I had attained such a gratifying success at a leap, so to speak, I resolved to continue my efforts in the hope of establishing the vineyard in Massachusetts, which had been found impossible up to that time. In this I have succeeded, and in establishing a strain of seedlings giving new grapes to the country almost yearly. The marvellous success of the Concord, its

adaptability to all soils and climates where grapes can be grown, its patient endurance of neglect, its wonderful fertility in ordinary soils, and its habit of giving to the country seedlings of value, justifies and explains the general acceptance, and foreshadows the time when we shall have, of our own stock, grapes equal to those of Europe."

SLUG SHOT.

In reply to an enquiry as to the character and efficiency of Slug Shot we publish the following bulletin:—

N. Y. AGRICULTURAL EXPERIMENT STATION,
GENEVA, N. Y., MAR. 18, 1886.

Nearly two years ago a sample of Hammond's Slug Shot, an insecticide of some repute, was sent to the Station for examination as to its poisonous properties, the claim having been made that it was perfectly harmless to all animals except insects and consequently could be used with impunity on all fruits and vegetables.

This insecticide is in the form of a fine powder having a pinkish color and an odor resembling coal tar. The color and the odor, together with the strong reactions given in tests for lime and arsenic gave the impression that the substance was a mixture of gas-lime and London purple, and a statement to this effect was made at the time. This was not intended to be a positive statement of its composition, and was made simply because it afforded a plausible explanation of its appearance and odor, and also suggested a cheap source for the arsenic which it contained. It was not considered necessary to proceed further with the examination after dangerous quantities of arsenic had been discovered.

This explanation is rendered necessary by the fact that the appearance of the above statement as to the probable composition of the Slug Shot in the

late report of the Station was followed by an affidavit from the manufacturer to the effect that at no time had either London purple or gas-lime entered into its composition.

A recent circular issued by the maker reaffirms the statement that "Slug Shot" is a combination * * not harmful to either man, beast or fowl, but probably the most effective and economical article in use for the destruction of the various insects that prey upon cultivated vegetation." The printed directions upon each package also state that "It contains poison thoroughly diffused through natural and chemical fertilizers and is perfectly safe in its use no matter how bountifully applied." This same impression, as to the harmless properties of this insecticide, is conveyed by the affidavit mentioned above. This claim, on account of the strong reaction for arsenic which had been found, was considered misleading and liable to result in serious accidents if not corrected, and a further examination was undertaken for the purpose of determining the quantity and if possible the source of the arsenic.

A few tests showed that the main portion of the substance was gypsum, and determinations of water, sulphuric acid, and lime were made which fully confirmed this.

A microscopical examination showed a reddish coloring matter, and numerous green particles insoluble in water suggested Paris green as the probable source of the poison. To confirm this opinion a test for copper was made which showed its presence in considerable quantity. In order to obtain a clue to the quantity of Paris green which the copper represented, the color imparted to a solution of ammonia by a given weight of Slug Shot was compared to that produced in the same strength of ammonia by Paris

green. This comparison showed that one part of Paris green was equivalent to about one hundred parts of Slug Shot. A determination of arsenious acid in the same sample (No. 1) which was received two years ago, gave 0.54 per cent.

On Feb. 4, 1886, when the investigation had reached this point, two more samples of Slug Shot (Nos. 2 and 3) were received from the manufacturer. Externally the packages were the same, except that No. 3 was put up to be sold by Joseph Breck & Sons, Boston, Mass. The general appearance of the substance in both these packages was quite similar to No. 1, although the color was slightly darker and the odor somewhat different; a more careful examination, however, showed that they were different in composition. No. 1 was quite free from organic matter, while both Nos. 2 and 3 contained a considerable quantity of fine organic powder which it would be difficult to fully identify, but when it is digested in water for some time and gently warmed, the odor is very suggestive of tobacco. This was the same in both No. 2 and No. 3. The organic matter which these samples contained so modified the color produced by ammonia that no definite idea of the amount of Paris green used could be obtained by direct comparison as with No. 1; the color was, however, much deeper, showing that they contained more than that.

A determination of arsenious acid in No. 2 gave 1.02 per cent., and in No. 3, 0.76 per cent. Paris green as obtained in the market is not a very constant composition, but the above figures indicate that No. 1 contained about one per cent., No. 2 two per cent., and No. 3 one and one-half per cent. These quantities are larger than necessary for an efficient insecticide. Experiments at the Station have shown

that one part of Paris green to 100 or 150 parts of land plaster is ample for the destruction of the potato beetle.

The quantity of arsenic found in these samples is certainly sufficient to demand especial care in its use at all times and to warrant the recommendation of its discontinuance upon cabbage and all other vegetables and fruit where it is possible for a portion of the poison to be retained until it reaches the table. When it is considered that one grain of arsenious acid is a dangerous dose, and that a tablespoon full of any of the above samples would contain more than this quantity, the necessity for caution in its use will be evident to all.

E. LEWIS STURTEVANT,
Director.

SMALL FRUIT NOTES.

The season has been quite favorable for the strawberry. The Horticultural Exhibition was the best for 50 years. Among strawberries the Belmont carried off the Silver Cup, although it had powerful competitors in the Sharpless and Jewell. The Prince (of Berries) took the first prize for a new variety, and the Parry the second, but there was a silver medal also given to the Gold, which is larger, higher-flavored and handsome. It was raised by P. M. Augur & Sons. Among the new varieties was the Dorchester, which, although exhibited in a general collection, attracted special notice for its size and beauty, and as a very late, handsome kind, the Omega received a first-class certificate of merit. Jewell fully justifies the high commendation it has received, and Sharpless is more popular than any other kind. Ellwanger & Barry conferred a great blessing on the world when they introduced it.

In regard to raspberries, the Carman is the earliest cap variety I possess. It is sweet and *very good*, a valuable

acquisition. The Ohio comes in next, and is hardy and productive. The Marlboro is early and prolific, ripening its crop gradually, and when fully ripe, of good quality, good size, and firm enough for traveling to distant market; but to obtain these advantages the suckers must be constantly kept down. It is the most vigorous and robust of all raspberries. My favorite is the Souchetti, which I introduced 30 years ago. This and the Franconia lead in the prize taking. Cuthbert is good, but no improvement over the Franconia. The Crystal of Caywood, a new white, is vigorous and prolific, handsome and firm, promises well for market.—MARSHALL P. WILDER, in *Rural New Yorker*.

STRAWBERRY NOTES.

THE first strawberries this season were Alpha, on June 1st. This has now, for several years, shown itself to be the earliest really valuable strawberry with me. Early Canada may sometimes be a day earlier; but Alpha is larger, more productive and of finer flavor; while the hardiness and vigor of the latter are all that need be desired. Metcalf and Crystal City may, perchance, be a day or even two earlier; but their lack of size, and extreme unproductiveness have ruled them out, and I abandoned them several years since.

Alpha, Maggie, Bright Ida and Arnold's Pride, which ripen successively in the order named, are seedlings (in the second generation) of the late Charles Arnold of Ontario, from a cross of Wilson upon the foreign variety, Dr. Nicaise; and are again, this season, as for several years past, surprising me with their fine size, fair quality and great productiveness. Jewell, Parry and Cornelia are fruiting heavily; but I doubt if either of these—even the Jewell—can be said to excel the former in vigor or productiveness.

Howell, a new variety of the history of which I am ignorant, ripened along with Crescent, on the second day after Alpha, and were soon followed by Philadelphia, Nicanor, Duckless, Duncan, Maggie, Bidwell and many others about in the above order.

The Alpha, last season, ripened its first fruit on June 13th; or about two weeks later than this year. Parry showed its first ripe fruit this season on June 11th. The plant shows a moderate degree of vigor, and is more than maintaining its last season's reputation for productiveness, as well as for the size, beauty and high quality of the fruit.—T. T. LYON, in *Rural New Yorker*.

THE "CONN" GOOSEBERRY.

We have received from Mr. P. E. Bucke, of Ottawa, a branch of this Gooseberry, to which a goodly supply of fruit was no doubt attached when it started on its journey, but which had nearly all become detached when it came to hand. The berries vary very much in size and form. Some of them are of an elongated form, nearly oval; others are round. The longest was a trifle over an inch in length, and measured two and a quarter inches in circumference at the largest part. The color was a bright green, but as the fruit was not perfectly ripe it may be that the color becomes lighter at maturity. Of the flavour it is impossible to speak, owing to the unripe state of the fruit.

The following account of this berry, given by Mr. Bucke, is taken from the report of the Fruit Growers' Association for 1885, page 53:—

"Last, but not least, comes a berry which I found in the possession of John Conn, Esq., J.P., of Kemptville, Ontario. This is decidedly the best gooseberry of which I have any personal knowledge. On strict enquiry of

Mr. Conn, he could give me no information as to its origin; he thought it a Whitesmith. Having doubted this I obtained some berries from him last summer and compared them with the Whitesmiths grown by a member of our Association in Ottawa, but there was scarcely any resemblance. It has the appearance of being some English variety, from its size, but bears much heavier crops than either Downing, or Smith's, and is nearly twice the size. Wood stocky and upright in growth. I immediately secured some thirty layers and set them out last autumn. These will not give any fruit of much consequence for two years, as layers should be set out for one or two years in nursery rows before they make good stock. Should this berry prove as free from mildew elsewhere as it has with Mr. Conn, it will certainly prove a most valuable acquisition to our fruit list. Failing any name for it, I have with Mr. Conn's consent called it the 'Conn,' and trust that name will be adopted until its true parentage is discovered. Mr. Conn informs me that all the American varieties he has grown (Houghton, Downing and Smith's) have mildewed more or less, but this one never."

ANOTHER NEW GOOSEBERRY.

Mr. J. M. Ogle, of Washington Territory, has a new variety of gooseberry, which he has named the Puyallup Mammoth Gooseberry, and which bids fair to become a popular candidate for public favor. It is said to be hardier and less liable to mold than any other known. Mr. Ogle says that he has this new gooseberry growing beside the English varieties, Crown Bob, Whitesmith and Champion, and that while the Puyallup Mammoth was wholly free from the diseases of the three English varieties, the Crown Bob

and Whitesmith had prematurely dropped most of their fruit and the Champion had not escaped.

We do not admire the name which Mr. Ogle has given to the gooseberry, and hope he will read the recommendation of the American Pomological Society and at least drop the word "mammoth."

THE KOELREUTERIA PANICULATA.

The Koelreuteria has the merit of blooming when few other trees are in flower. In late July the large yellow panicles open at the extremities of all the branches, giving the tree an appearance quite unlike that of any other. The foliage, too, is good, and I have never seen it preyed upon by any insects. One drawback to the tree is the dead flower stems which remain on the tree for a year after the fruit—which is quite ornamental—has fallen.—*Philadelphia Press.*

NOTE.—A tree in a neighbour's grounds is now in full bloom (August 12th) and is a very showy object.

REFORM IN NAMES OF FRUIT.

The President of the American Pomological Society thus expresses the object which he seeks to attain in simplifying the names of fruits:—We want to repress all royal titles, such as emperor, king, or prince; all political titles such as president or governor; all military titles, such as general, colonel or captain; all indelicate names, like Hog-Pen, Sheepnose and Big Bob; all ostentatious names, such as Excelsior, Ne Plus Ultra or Stump the World, and all long names, like Doyenne Gris d'Hiver Nouveau or Twenty-fifth Anniversary of Leopold the First. In the future we desire to use but one

word for the name of a fruit, as with the Baldwin Apple, the Bartlett Pear, the Concord Grape, and other renowned fruits which will be perpetually known by appropriate and easily remembered names.

THE HICKORY AND BLACK WALNUT.

Talk about timber devastation! If our readers want to see what it looks like, let them follow us to any of the mountain ranges of the great Alleghany mountain system, wherever these ranges are within reasonable distance from the railroads, notably to the Blue Ridge, which divides the Great valley from Eastern Virginia. Here whole forests of white oak are cut down, merely for the sake of the bark, which is to be sold to the tanneries; and the noble hickory and the majestic black walnut are falling under the stroke of the axe. The oak timber is sometimes worked up into railroad ties, more generally, however, left on the ground unused. Hickory and Black walnut logs are shipped to northern manufacturing towns.

So the timber gradually grows less; the mountain slopes and even the very ridges are getting denuded of their original growth; and after a while the ornament of these forests, the hickory and the walnut, once so numerous, will be no more. They are getting scarce already in the regions intersected by railroads.

The present price of black walnut lumber, even without the sure prospect of rapid and material advance, is such as to insure very large profits in the cultivation of this tree for its timber.

The same may be said of the hickory. Whether the fruit may be of much account or not, the timber alone will pay large dividends.

Why the American farmer, especially in the South and West, with large tracts of cheap land, does not take hold of so good a chance, we are unable to

understand, unless it is because he does not look beyond the immediate future, and rather take six per cent. interest one year from date than six hundred in ten years.

The establishment of a black walnut forest is an extremely simple thing. The nuts are easily obtainable almost anywhere in any quantities, and may be planted like corn. Seedlings are for sale by nurserymen at very reasonable figures, and may be planted like any ordinary orchard, only rather close, say eight feet a part each way. In either method you can accomplish your object without great trouble or expense. Much cultivation is not needed. The trees will soon take care of themselves and grow into money right along, big money, too. Why not do it, you who can!—*Orchard and Garden.*

BUHACH.

We take the following extract on the manufacture and use of this insecticide from the *New York Examiner*, merely premising that the plant from which it is made is a variety of *Pyrethrum*, the *P. cinerariaefolium* :—

Buhach powder is made by pulverizing the flower-heads of the plants. The flowers, which look much like daisies, are gathered before they are quite open, and should be dried under cover, as the heat of the sun seems to injure them. So does the heat of stoves, or other artificial heat. After drying, if only a small quantity is to be pulverized, the flower heads can be put into a mortar, and covered with a piece of leather, through which the pestle can pass. After pulverizing, the powder should be sifted through a fine sieve, and then, if not wanted for immediate use, put up in an air-tight glass fruit jar.

Buhach is usually used in the evening or in the early morning, because the dew on the leaves will make the powder

stick to the little insects and kill them. The powder should not be used on rainy days, for it will wash off from the leaves, and do no good. The insufflator, a little invention for holding in the hand and throwing the powder, is the best arrangement for applying buhach. The powder never injures the leaves of plants. It can be applied mixed with water. Professor Riley says that in a mixture where only 1-200 of a pound was used to the gallon of water the solution proved fatal to caterpillars. The water mixture is the most economical way of using buhach on plants, although, in order to prevent the too rapid evaporation of the mixture, add some glycerine, about half a gallon of crude glycerine being added to forty gallons of water. This mixture kills both the red spider and the scale insect, pests that in former years have been fought against with lye, and remained unconquered even when the lye was strong enough to crack the bark and injure the trees.

The use of buhach in liquid solution in this country dates from 1880, when the United States Entomological Commission discovered that it could be so used, and the Government Entomologist, in his report for 1881-82, says that "the finer the spray in which the fluid is applied the more economical is its use, and the greater the chance of reaching every insect on the plant."

Professor Cook, of Lansing, Mich., has killed cabbage-worms with a mixture of one pound of buhach with 200 gallons of water, and he also states that he has applied buhach mixed with flour and also with water, and has found both methods efficient in destroying the larvae and imagos of the Colorado potato-beetle.

Professor Hilgard, of the University of California, says that he has been surprised at the effect produced on the hairy tent-caterpillar by water that contained a mixture of one pound of pow-

der to fifty gallons of water. Although the tent-caterpillars paid no attention to the powder when blown upon them from the bellows, when they received a sprinkle of the diluted extract, they died very soon. Professor Hilgard has recommended the use of the extract in greenhouses and conservatories, on account of its harmlessness to plants.

Professor Riley states that there is nothing known to him that so quickly kills the cotton-worm as buhach.

Professor Eisen, in an address before the California State Viticultural Convention, held in San Francisco nearly three years ago, recommended the use of the buhach solution for spraying grape-vines, about forty gallons of solution being used for an acre of vines. One pound of buhach mixed with thirty of sulphur, and allowed to stand six hours before using, he recommended as a sure remedy for vine-hoppers.

QUALITY VERSUS QUANTITY.

In a few remarks last month I suggested the securing of quality of fruit, as one good step towards the realization of better prices for our horticultural products. Our markets are most always supplied with an excess of inferior articles, the prices for which, even though in excess of their actual value, act as a bar to sales of articles in the same line of a better grade.

This, I think, will apply to any article of trade in any branch of industry, and fruits are no exception.

The manufacturer of a strictly first-class article of dairy butter has enough of the inferior grades of the genuine article to compete with, to say nothing of the diabolic counterfeits in the shape of oleomargarine, butterine, etc. The merchant who endeavors to handle only first-class goods, has "Jews" and "cheap John" dealers in inferior grades of goods to contend with, and

cheapness with the masses is synonymous with low prices. With our fruits the lowest in price is often the dearest to purchase. Is it not so in other things?

A case or two in point by way of illustration. The Ives grape is one of the first to appear in our markets, coming with or followed closely by the Champion. The reason of this is, it colors early and looks well weeks before it is fit to eat. Some growers at Hammonton and Vineland send forward their whole crop of Ives before commencing their Concords, and I am sorry to say the vendors often sell them for Concords, though the latter are the earliest. In an interview with a German grape-grower at Vineland last winter, he put it in this way: "Those peeples who sell Ives so early spile the whole bizness, the Ives be so sour peeples who buys 'em got no more appetite for grapes, and the whole market be spiled."

That is just what's the matter; they break the market with their sour, unripe and inferior stuff, that purchasers are afraid to buy, and regard a really good article with suspicion.

Last fall the grape market was, as usual, pretty well demoralized, and as a consequence, I felt a little concern as to the resulting income from my small crop.

I kept holding off as well as I could, hoping the receipts would diminish and prices stiffen a little, but no improvement seemed apparent, so one day I filled a sample basket and went to New York, to see for myself. Calling on a commission merchant, I enquired what first-class No. 1 Niagaras were bringing? Twelve cents was the highest mark and from that down! I remarked that I was sorry to hear that as my crop was smaller than usual, and I hoped to do better than that. Niagaras, he said, had not been first rate,

not sweet, and it was hard to get twelve cents.

"Well," said I, "I suppose I will have to take what I can get, even if I am not satisfied. I have brought a sample basket of my fruit, that you may see how it compares with that in the market."

On removing the cover, the merchant exclaimed, "Oh! I was not talking about such stock as that, I meant the best State stock. I have not seen anything as fine as those this season. Such fruit as that ought to bring fifteen cents readily." I felt relieved. I told him the sample was a fair one, and he could turn it out and find the bottom as good as the middle or top. I left the sample for him to show his customers what they might expect, and returned.

In a day or two I received a note from him stating that his customers, while admitting the fruit to be very fine, that fifteen cents was as much as they were willing to give on account of the abundance of *Almeria* grapes in the market and the low prices they brought. While he would like to handle the fruit, he did not wish to create undue expectations.

When I got to gathering the crop I took a small load in to the city, and left them with the merchant, merely saying, "do the best you can."

I due time, the returns came, sixteen cents per pound.

Why? Simply because the quality was No. 1, and they were honestly put up. Another party did as well or better. Does it pay?

A merchant sent me an order for some Concords, saying he would give me five cents per pound for them. I filled his order and in a few days I received a note from him to this effect, "The Concords were fine large clusters, will allow you six cents for them; they are worth it, send me some more."

With Concord's abundant at four cents, quality alone must have the credit of this advance. Does it pay?

I frequently hear people talk of the profits of growing Concord's at two and one-half cents per pound, and their satisfaction at such prices, but when I reach that condition of mind I shall be more of a lunatic than I am now. I would rather go out to work at a dollar a day, turn tramp, or go to the almshouse by a more direct route.

With the present condition of our markets and the business, I am convinced, from my own experience, that the most important factor in securing profits, or even satisfactory prices, for our agricultural and horticultural products is in improving the quality, even if the quantity is diminished. Better fruit and less of it.

I think it was Webster who said, there was "plenty of room at the top."

Will it not pay more of our fruit-growers to try and get there?—E. WILLIAMS, in *Michigan Horticulturist*.

VARIETIES OF RASPBERRIES TO EAT.

I feel some embarrassment in writing upon what is so clearly a matter of taste, knowing that that subtle sense varies so much in individuals that it would be audacious for any one to set up his own as a standard.

I may be under an illusion but am impressed that I used when a boy, roving over fields and woods, to occasionally strike a stool of black raspberries, growing in just enough shade, with roots feeding in just the right kind of compost, that produced berries of the most delicate and exquisite flavor of any I ever ate. In fact, as I have since tested new varieties of raspberries, the memory of the flavor of those I used to eat, strung on a timothy stalk, would obtrude and become a standard of comparison.

The Mammoth Cluster was a favorite of mine for eating, not so much, perhaps, because of its high flavor as for its freedom from seeds. A berry with pulp crowded full of seeds is not very pleasant eating of however high flavor.

Seneca is another high-flavored black-cap, but, for some reason, has failed to push its way into popular favor, perhaps because it had no one particularly interested in pushing it.

Of the black-caps now grown extensively for market or evaporating, none, I think, are of very high quality. Gregg is one of the poorest; Ohio is a little better but not of high quality, and the same may be said of Tyler. I think Hopkins may prove better than any of the three. A new variety, not yet much disseminated, "Reyes," is the *sweetest* black-cap I ever tasted.

Passing on to the reds, among the best in flavor are Knevet's Giant and Herstine, and I think they are well worthy the attention of the amateur, although not perfectly hardy. Among hardy sorts, Clarke, Turner and Culbert are of good quality. I think Marlboro will rank pretty high in quality. Excelling all in delicate flavor, yellow berry, Brinckle's Orange, will repay considerable effort for its production.

For the table, well mixed with sugar, I know of none that please me more than Shaffer, although of inferior flavor, eaten out of hand.—P. C. REYNOLDS, in *Michigan Horticulturist*.

CANADA'S FRUIT EXPORT.

The trade tables show a steady growth in Canada's exports of fruits during recent years. The declared value is now over half a million dollars, and, although this is but a small sum, it doubtless has a marked effect on the home prices.—*Montreal Witness*,

CRANBERRIES.

BY A. MC D. ALLAN, GODERICH.

Up and down throughout the Province there are hundreds of acres of swampy lands that at present are of little or no practical value to the owners, and yet possibly a large area of this swampy land could be utilized for the purpose of cultivating cranberries. This subject stands prominently among our neglected industries in this Province, probably from the fact that so little is known about the various points of cultivation and care necessary in order to secure a crop at once profitable and regular. Consumers heretofore have been satisfied with the supply reaped yearly from wild beds in far northerly sections, or imported from the neighbouring republic. But now that the demand is rapidly increasing, and will certainly continue to increase, those who have pieces of waste land suitable for cranberry culture may feel interested in a few particulars on the subject.

There appears to be several varieties of this fruit in European countries, and in some of these countries the cranberry stands among the most reliable and valuable crops for home market and export. But although it is largely grown throughout Europe, our American cranberry being larger and of a much better quality, finds a ready market across the ocean at much higher prices than the native berry. By the British market reports, I find that the demand in that country for the American cranberry has rapidly increased during the past few years, and prices are steadily on the rise, the supply being short of the demand.

The first requisite is to secure a piece of land that can be flooded during the winter season, but it must be so situated that the water can easily be drawn off in spring when wanted. The plot should be sufficiently underdrained or

ditched to avoid holding water stagnant near the surface, as this would induce disease and the breeding of insect enemies.

In preparing the soil care should be taken at the outset to have it free from grass and weeds, although I have seen plots along the sea coast in Maine where, in the course of three or four years, the vines made so close a matting that grass was choked. But like other crops, so in this it will pay to begin with clean cultivation. The plot should be nearly level, so that when flooding there will be an even cover over the whole surface. Lands with peat or muck bottoms are usually considered best. If a regular sod is formed, especially of the coarse strong-rooted swamp grass, it should be removed at a season of the year when the water is low, and in place of this sod a complete cover of fine sand about two inches in depth should be spread over the entire plot. Clay bottom soils should be avoided. Peat or decayed vegetable soil, with a mixture of sand will do, although, if at all possible it is preferable to have a complete top cover of pure sand. The winter is a good time to apply the sand, as there is usually more time for such work at that season, and besides, the expense is generally less for hauling then. If there is danger of grass or weed roots in the soil, the sand should be laid four inches deep over the surface, otherwise half that quantity will be sufficient.

It is not necessary to obtain rooted plants for setting out, as the cranberry grows freely from cuttings. Some growers make small cuttings, broadcast them over the plot and roll or press them over the soil, while others advocate planting in rows. If the soil is clean, broadcasting the cuttings is probably best, as the vines cover the surface sooner and thus prevent the growth of grass and weeds. When they are planted in rows there is usually too

much space left for cultivation the first two years, and this space allows the scorching sun to beat so directly upon the young vines that they are often weakened. Under favourable circumstances, if plants are placed two or even three feet apart they will completely cover the ground in about two years.

The spring is the best time to set the plants or cuttings.

Usually the plot should be flooded about the first of December, and the water drawn off gradually the following spring from the first to the middle of May. After the plants or cuttings are set the water should be kept near the surface and gradually drawn off as they strike and grow.

If a stream runs through the marsh so much the better, as in dry weather in midsummer, when there is any appearance of insect enemies, the flood-gates can be closed and the plot thoroughly saturated for a couple of days so as to destroy these enemies, while at the same time supplying needed moisture to the plants.

Sulphate of iron is an excellent top dressing for cranberries but it must be used sparingly. If dissolved in water a liberal sprinkling will be sufficient.

There are several varieties grown, but I think the favourites are the Cherry and the Bugle, although the former is reported as being tender in parts of the State of Maine. As a rule, a full crop need not be expected until the fourth year, although a small crop is often reaped the second year from planting.

The yield varies from one to two hundred bushels per acre. Large growers reap the crop with rakes specially adapted for the purpose, but hand-picking is preferable, as the berries are not injured, and hence keep much better in transit and bring a higher figure in the market.

As soon as the crop is picked and

barrelled, it should be sent to market if the grower wants to make the best value out of his crop year after year, as by keeping, the shrinkage will more than counterbalance any possible advantage in awaiting a rise in the market.

HOW TO MANAGE THE CUTWORM.

Professor C. V. Riley believes that the onion crop can be grown successfully, even in a marked cutworm season, by adopting the following measures:— As a preventive treat the land early in spring with a mixture of lime and ashes, preferably wood ashes. This mixture should be lightly spread over the land after ploughing and harrowed in. If, after the seed is sown and the plants begin to come up, the worms appear and threaten damage, employ the poisoned ball system, which, in brief, consists in placing along the rows, at a distance of fifteen or twenty feet apart, small bunches of fresh cut grass or other green plant; cabbage leaves answer a good purpose. These bunches of grass or green plant should be previously sprinkled with Paris green or London purple. Should the worms still appear in great numbers by migrations from surrounding fields, sprinkle the ground at night, while the worms are at work, with a dilute emulsion of kerosene. A Goshen grower has used pure kerosene for killing the worms, simply blackening, not killing, the onion tips. The free use of pure kerosene may injure the plants, hence an emulsion is recommended as safer and cheaper. The kerosene is emulsified with soap or milk in order that it may readily dilute with water. There is little doubt but that by spraying of the fields at night with this mixture the worms can be destroyed by wholesale. It should be used most thoroughly at the points in the field where the worms are first noticed at work, and from which they

spread to surrounding points.—*Montreal Witness.*

MOORE'S EARLY GRAPE.

Prof. Budd said: "I consider it very promising in Iowa now; it seems to be hardier than Concord, it has a better leaf. Moore's Early has the best foliage. It is earlier even than the Worden I think." Mr. Lyman: "I have fruited it now two years, and it has proven quite satisfactory; wood and foliage good; an abundant bearer; fruit large; ripens early; shall plant largely of it." Mr. Plumb, Wisconsin: "I fully indorse what Prof. Budd has said of Moore's Early. I think very highly of it, and consider it the best and most promising grape we have out there. It ripens nearly a week ahead of the Worden." Mr. Rogers: "Moore's stands well in New Jersey." Mr. Scott: "I have to report some rot on my grounds." Mr. Munson said: "It does not rot in Texas; it is very early, black, firm, medium to large, quality good to very good; makes a red wine." Mr. Harrison, Ohio, reported no rot. Mr. Green: "I can also speak very highly of it; ripens before the Worden." Mr. Manning: "I was at Mr. Moore's place the other day and saw more than 40 tons of grapes in his vineyard. He has 660 vines which must have nearly three tons of fruit on them. The vines are allowed to run wild, no pruning having been attempted. Moore's ripens three weeks before the Concord."—*Rural New-Yorker.*

REMEDIES FOR CABBAGE WORM.

I have not failed for forty-two years in freeing my cabbages of worms. I was at the house of a lady in Kentucky who had the finest cabbages I had seen that year. I asked her how she managed to keep them free of worms. She told me by sprinkling them with flour, shorts, or shipstuff. As soon as I got

home, I had mine well plowed, and the next morning I put a large tablespoonful of coarse flour, or middlings, on each head, while the dew was on; the dew made it wet, and the worms began to crawl and roll over on the wet flour. The more they struggled, the more paste they gathered; they would soon fall on the fresh plowed earth, which, being wet, would stick to them, and clog their feet and legs, so that they could not get into the ground. Those that could not get off, died on the heads. The paste prevents all eggs from hatching.

This has been one of the most difficult seasons I recollect to keep the worms from destroying cabbages. Two plowings, and twice going over and applying the flour, saved mine, while most of the neighbors lost theirs. It may be necessary to apply it oftener, if hard rains come and wash out the flour. Rye or buckwheat, unbolted, is as good as fine flour; the paste is what does the work.—W. G., LEXINGTON, KY., in *Country Gentleman.*

SMALL FRUITS ON THE FARM.

To stock a small garden with the best varieties requires only a few dollars outlay, and the skill necessary to keep them in good condition is within the reach of any one who is interested in the matter. We generally see a few scrubby and neglected currant bushes in the grass along the garden fence, but not in one garden in a dozen do we see much more in the line of small fruits. That men are fond of these fruits is proved by the avidity with which they dispose of them when placed before them in the shape of pie, shortcake, or eaten with sugar or cream. They seem to forget, or overlook the fact, that the season of enjoying these luxuries need not be confined to summer. Canned fruits are nearly as good during the winter, if properly put up, as when

fresh, and the expense and trouble of putting them up is not great. More money is usually spent for prunes and other dried fruit during the winter in families where fruit is not put up, than it would cost to purchase jars and sugar to prepare a supply at home. The women will take care of the fruit if they only have it to take care of, and will be glad to have the chance to do so. Should more fruit be produced than the family can consume, it will meet with a ready sale at the nearest village, and usually bring the grower better returns than if sent to the overstocked markets of a large city. Sell none but the surplus.—*American Agriculturist*.

ADAM'S NEEDLE—(*Yucca filamentosa*).

Among tall growing perennial flowers the *yucca filamentosa* is conspicuous. In rich soils the stocks stand six or seven feet high, carrying hundreds of cream-colored, drooping, lily-shaped flowers. They are especially beautiful in moonlight, when they appear snow white and no imperfections can be seen. A group of them standing before a background of dark foliage is most effective.—*Philadelphia Press*.

FLOWERING DOGWOOD.

This small native tree (*Cornus florida*), grows from twelve to thirty feet high, and the flowers appearing in spring before the leaves have expanded, it becomes a conspicuous object in the margins of woods where it grows, the showy white flowers being often three or three and a half inches in diameter. What appears to be the petals are really the corolla-like involucre, the flowers themselves being in a small head within. They last long for spring blooming, often more than two weeks, and later in the season the berries are an ornament. The foliage turns to a deep red in autumn. The flowering dogwood is

valuable, as immediately following in bloom that of the magnolias, and is eminently worthy of a place in ornamental grounds.—*Country Gentleman*.

BOOKS, &c., RECEIVED.

Proceedings of the thirty-third annual meeting of the Kentucky Horticultural Society. A neat pamphlet of some eighty pages, full of horticultural information of special value to residents of that State, yet containing many suggestions very worthy of the attention of those who cultivate fruit in Ontario. One of the papers, entitled "Some things needful in Kentucky horticulture," especially that part of it which treats of "a higher order of culture among those who make it a business," contains suggestions that might well be put in practice by cultivators in any latitude.

Report of the North Carolina State Horticultural Society, 1885. S. Otter Wilson, Secretary, Vineyard, Wake Co., N.C.

Transactions of the Massachusetts Horticultural Society for the year 1885, Part II. The report of the committee on gardens is especially interesting.

The Canadian Bee Journal is published weekly by Jones, Macpherson & Co., Beeton, Ont., at one dollar a year. It is now in its second volume, which has been increased from sixteen to twenty pages. Those who are interested in bee-keeping in Ontario will find this weekly a very helpful visitor.

MINNEWASKA BLACKBERRY.—This new blackberry, not yet disseminated, I believe, has again emerged from the winter alive to the tips, here in the Hudson River Valley. This feature of hardiness has long been the pressing need of blackberry growers at the North. If with the exceptional productiveness, good size and quality so far evinced by the Minnewaska it shall continue to combine iron-clad vigor, it will be a valuable acquisition.—H. H. in *Rural New-Yorker*.

THE SCENT OF A FLOWER.

Jane C. Simpson, in the Quiver.

The scent of a flower is a wonderful thing!
It plays round the heart like the zephyrs of spring;
So subtle, so soft, so resistless its power,
No monarchy rules like the scent of a flower.

Some odors so blend with past happier years
They move us like melodies breathing thro' tears;
For they bring back the faces and forms that are cold,
And walks in the woods 'mid sunsets of gold.

"Consider the lilies." Lord grant us to be
By the field and the garden brought nearer to Thee;
To read in sweet blossoms Thy goodness and power,
And an infinite love in the scent of a flower.

EXPERIENCE WITH HUCKLEBERRIES IN CONNECTICUT. About three years ago I transplanted eight huckleberry plants, which had attracted attention on account of their size of fruit, and they were given a home corresponding as near as possible with the old. They began to die, however, one after another, until the last one perished last fall. In my opinion there is but one way to conquer this fruit, which is by raising seedlings from those that have taken most kindly to cultivation. S. T. BRADLEY, in *Orchard and Garden*.

LOW RASPBERRY BUSHES.—Mr. W. R. Sprague gives the readers of the *Ohio Farmer* some good advice as to the proper length of berry canes: "I have too often neglected," he says, "to stop the growth of raspberry canes at the proper height. The canes almost always require cutting off when other work is pressing. This year I have cut the growth when from a foot to two feet. It was necessary to go over the plantation of two and a half acres twice, from the fact that a portion of the new growth is backward. I have found that with me a low bush will give more satisfactory results than a high bush.

ANOTHER NEW STRAWBERRY.—I believe the coming berry has come, and far exceeds the expectation of the most sanguine, and those berries that have held the first place so long will gracefully step down and out, to make way for so worthy a successor. The Jessie—named for one of Mr.

Loudon's daughters—is of a deep, rich color, attractive in form, a Jumbo in size, (we picked specimens which measured 9½ inches in circumference). In flavour it is a delicious pine apple; it is firm without being hard, thus rendering it a desirable berry for shipment or for the table. Specimens before me compare with our Crescents as our Crescents compare with the wild berries. We have had many new varieties of berries, which promised well, but did not prove satisfactory when tried away from localities where they were originated, but the Jessie promises to thrive and flourish everywhere, Mr. Loudon having given it thorough tests in a great variety of soils.—V. H. C. in *St. Paul Farmer*.

MANAGEMENT OF EARLY FRUITS.—Early apples and pears will now be ripening and should be gathered for home use or for market. In the eastern States, in localities near a market, early apples pay better than late varieties, as the grower has not to compete with the Western fruit growers. These are only profitable when they can be sent to a near market, while the late fruit can be transported a long distance without injury. Early apples, of showy kinds, should be carefully selected, and sent to market in neat packages; half barrels, lined with white paper, are the most attractive package, though, on account of their cheapness, bushel and half bushel crates are used by many. The fruit should be matured—i. e., full-grown when gathered, but should not have had time to mellow. When an apple or pear is mature, it readily parts from the tree; when lifted to a horizontal position the stem of the fruit will break away from the twig to which it is attached, leaving a clean, well defined scar. With fruit, maturity is a distinct stage, and ripeness, or mellowness another. Early fruit generally, if picked when mature, will be ripe and mellow by the time it reaches the consumer. Fruit picked thus, and ripened off of the tree, is vastly better in flavour, juiciness and texture than if allowed to remain on the tree until "dead ripe."—*American Agriculturist*.