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THE RED-FLOWERING DOGWOOD.

 WE have only one genus of the Dogwood family in Ontario, viz., the *Cornus*, a name given it with reference to the hardness of its wood. Of this genus we have in Ontario seven species, to some of which we shall briefly refer. The Red Osier Dogwood (*Cornus stolonifera*) grows abundantly in the Niagara district, along our fences, and is a very ornamental bush on account of its bright red-purple branches and its white berries. The Bunch-berry (*Cornus Canadensis*) is a small plant, which we found growing plentifully about Gravenhurst, and around Muskoka lake, blooming about the first of July. The Flowering Dogwood (*Cornus Florida*) is a small tree, reaching sometimes a height of twenty or even thirty feet, and is very ornamental both in fruit and flower. The flowers are white, often tinged with a shade of pink, and the berries are a bright scarlet. This tree is very frequently met with in rocky woods in the Niagara dis-

trict; we have found it in flower about Grimsby, and near the village of Fonthill, about the beginning of June.

The Red Flowering Dogwood, of which our colored plate is an illustration, is simply a variety of the latter species, and Mr. Thos. Meehan, of Germantown, Philadelphia, speaks of it as follows:—

“In walking through the woods in Spring when the White Dogwoods are in bloom, we have often seen flowers that had quite a tinge of pink running through them, though not sufficient to make them particularly desirable. When this new red flowered variety was first introduced, many persons thought it was but one of these light pink forms, that was perhaps a trifle more marked than some of the wild white ones. Being anxious to learn just what merit it possessed, through the kindness of the originator, we secured some flowers of it, and upon opening the box were agreeably surprised to find them of the most beautiful rosy pink

color, somewhat bordering on red. A growing plant before us also showed the leaves to have a rich velvety appearance, and to be darker than the white variety. So much so, that it was quite easy to distinguish them, when growing side by side. The tree makes a close upright growth, another characteristic of its own.

Whether the bunches of scarlet

berries will follow after the flowers have dropped, we are unable to say, but we see no reason to the contrary.

That this is undoubtedly a grand acquisition to the list of ornamental flowering trees, no one will doubt after seeing it in bloom. Can anyone imagine a more beautiful or unique group on the lawn, than the Red Flowered, the White Flowered and the Weeping Dogwood.'

A RAMBLE IN VICTORIA PARK AND VICINITY.

THE term of Lord Dufferin's rule, as Governor-General of Canada, will long be had in grateful remembrance by that large and constantly increasing number of excursionists from both sides of the line, who, tired with the press of business cares whether of farm, orchard or office, seek much needed rest and recreation without incurring extravagant expenditure. It was in the autumn of 1878 that the suggestion concerning an International Park was made by Lord Dufferin to Governor Robinson, of New York, and in May 1888, that the Victoria Niagara Falls Park was opened to visitors; that on the American side having been opened some three years previously.

To any one who has not visited this park since its emancipation from private greed, the sense of relief, with which one can now view this world-renowned cataract and its surroundings, is most gratifying. From the

Clifton House right away past the Horse-shoe Falls, for a distance of two and a half miles, an area of some one hundred and fifty acres has been improved and beautified by the park commissioners, in a manner which reflects credit upon their taste and good judgment. An effort has been made to restore to the whole surroundings, as much as possible, their natural beauty; and to this end all unsightly buildings have been removed, and the dusty roadway by the riverside replaced by a narrow walk, bordered with grass and trees, and here and there a rustic seat, and a drinking fountain. The rustic entrance is most appropriate in design, and the boundary fences are made of almost invisible gas piping; thus there is little to obstruct or to offend even the cultivated eye of the critical observer.

THE FLORA

of this locality is very rich, and the

botanical student will here find much to enrich his herbarium. It is stated that as many as 500 species have been identified, a list of which has been compiled and published. No wonder the idea occurred to Prof. Panton, of the Ontario Agricultural College, that here would be an admirable point at which to gather a band of students for practical instruction in the sciences of Botany and Geology during the summer vacation. We met him on the afternoon of Tuesday, the 23rd of July, leading a band of twenty-six ladies and gentlemen, for an excursion along the river margin in search of specimens for analysing,



FIG. 63—THE PRINCIPAL ENTRANCE.

each one with his copy of Spotton's Botany, and many of them provided with tin boxes slung from the shoulder for the better preservation of the plants. Many of the students were teachers preparing in this way for more thorough work in their own schools. We followed the peripatetic Professor on an excursion along the margin of the river, listening to his practical method of teaching; and on the following morning attended two of his morning lectures. The course, it seems, extends over a period of two weeks, and consists of

a series of lectures in Botany and Geology, ten on each subject. We believe this is the true way to study these sciences, viz:—beginning with the objects themselves, and gradually proceeding toward the technical and the abstract. The contrast was very marked with the university mode of years ago, when we waded through books and took notes of lectures upon these subjects, committing whole pages of technical names, and of classifications, without so much as ever seeing the objects themselves.

In our ramble along the river margin we found a beautiful specimen of *Campanula Americana*, the tall Bell-flower, in full bloom, and also the coarse growing *Polymnia Canadensis* or Leaf Cup, which is only known to occur here. But the richest returns were found in the walk to the

DUFFERIN ISLANDS

than which a more attractive resort for the lover of Nature can not well be imagined. "Riverside Ramble;" "Lovers' Walk"; "Lovers' Retreat," etc., are names suggestive enough of romantic retirement; and the reality is no disappointment. Amid the dense forest growth through which these walks are laid out, leading the Rambler across rustic bridges, along streams and brooks, lined with ferns and wild shrubs of many species, numerous fine specimens were found. *Daphne mezereum* was there in abundance, with its load of red berries, as also was *Actaea spicata*, with similar fruit, known commonly as the Baneberry. *Onoclea sensibilis* or the Sensitive fern, grows abundantly in wet places

on these islands. Along the border of a marshy place, peeping through the grasses, we found the pretty little light-blue flower of *Lobelia Kalmii*, and, near by, plants of the strong scented *Hedeoma*, or Mock Penny-royal. Laden with such treasures as these, we found our way to our headquarters for rest and refreshment. Finding that we were in the vicinity of the great Lundy's Lane, and

He plants his currants, gooseberries raspberries, etc., all six feet one way and four feet the other, so that he can cultivate two ways, a great saving of hand labor over the common method of planting in rows one way only. He complains that the Souhegans and Tylers have suffered very much from rust. The same was also true of the Saunders, of which he has quite a large number. He does not



FIG. 64—AMERICAN FALLS—FROM BLUFF OVERLOOKING PARK.

that the whole neighborhood was devoted more or less to

FRUIT CULTURE,

we decided to trace out some members of our fruit-growing fraternity. We were soon directed to the residence of Mr. E. Morden, who took pleasure in showing us over his plantation of small fruits. Although his place is not large, only twenty-five acres, of which twelve are devoted to fruit culture and the propagation of plants, it is a model of cleanliness; a point worthy of mention in these days of grass-grown vineyards and shabbily kept raspberry plantations.

recommend this variety, both on account of rust and because its small size and poor color make it less attractive than the Shaffer. This latter variety he has tested pretty well, but in size our plants and fruit at Grimsby are ahead. He says he has no difficulty in selling the fruit when once it is known, but otherwise its color is a serious objection. From a commercial point of view he would place the Shaffer ahead of the Gregg, as it is more productive, but he does not consider it equal to the Cuthbert for profit. He thinks well of the Honey Locust as a hedge plant. He has one now about five years planted

and it is a sufficient barrier to turn cattle. Mr. Morden sells all his fruit on the American side of the river, where he claims that he can get the best prices. We are not surprised therefore to find that he is an ardent advocate of Commercial Union.

SEASONABLE HINTS FOR FRUIT GROWERS.

ONE year ago, on page 195, volume xi., of this journal, we gave our readers some information upon the quickest methods of packing apples for shipping to foreign markets, with an engraving of a convenient packing table, one of a handy crate to be used in the orchard for bringing apples into the packing house, and making some reference also to a Yankee invention for gathering apples, an illustration of which has been given on page 149 of the present volume. Progress and improvement being the motto of Canadian fruit growers, we hope that a year's experience has taught us something worthy of mention in addition to what we knew a year ago.

FOR NEAR MARKETS,

there is nothing gained as a rule in gathering fruit of any kind before it has attained its full beauty, and a certain degree of ripeness. It is a great temptation to do this when prices are up, and a drop is feared, but immature fruit is a drug in a dealer's hands, and the shipper soon receives word that no more is wanted. Experience only, however, can fit a man to judge just in what stage of ripeness a fruit should be gathered. The writer has, for some years, been in the habit of growing summer

apples for near city markets, and has learned some lessons in this respect. He has one hundred and twenty bearing trees of Red Astracans, and no kind has proved to be more remunerative when properly handled. Our practice is to go over each tree about twice a week for about three weeks, taking off the fruit as it ripens and colors up. The Astracan, is a beautiful apple, when it has its full color, but to get it just in its prime of excellence the trees must be gone over very often. As fast as gathered they are brought into the packing house in a spring wagon, and assorted. They are turned out upon an inclined packing table, and the extras, or perfectly formed, highly colored fruit, such as is suitable for table use and dessert purposes, is packed very carefully by itself in baskets, while all the rest is put up in barrels. None but the very finest will pay for the trouble of putting up in baskets and sending into market by express, the rest will do much better in barrels. We found that by carefully keeping our fruit up to sample we could get a pretty constant price for it right through the season, even when apples were coming in abundantly. They seemed to become known and sought for in the market.

It is a great deal of trouble to gather a crop of apples in this way, and to do it on a large scale requires constant attention. Summer apples would not pay the farmer, for they need harvesting just when he is busy with farm crops. Just now, for example, (Aug. 13th) a part of our force has to be detached to harvest a field of oats, and that means a waste of pears and apples that are now ripening, and in most seasons, it would be of peaches also. An

APPLE-PICKER

is a useful tool in gathering the first ripe apples and peaches, very often saving the use of a ladder where it would otherwise need to be set up and climbed for a single specimen in a place. We use the apple-picker described on page 283 of volume ix, but a device that will answer the purpose, may be easily made at home on a rainy day at a trifling expense. We noticed a description of one in the *Kansas Farmer*, by Wm. C. Coleman, which we give for the benefit of any one of our readers who may desire to have a home-made one:—

Take a hard-wood board one inch thick, mark on it a circle seven and one-half inches in diameter, inside of this draw another circle six inches in diameter, between the two circles bore one-fourth inch holes one and one-half inches apart, cut the wood away from the outside circle, and you have the back of the apple-picker. Next, make enough round, hard-wood pegs, six inches long, to fill the holes. Before driving in the pegs fasten the handle to the back. The handle should be a light strong pole, six or eight feet long. Now drive in the pegs or teeth, be careful not to drive too hard and split the back.

When it is finished it looks so simple that you wonder you hadn't thought of it long ago. With it you can pick the choicest apples, which always grow on the top branches, without bruising; and instead of standing on a ladder all day you can pick most of your apples from the ground.

TREATMENT OF THE RASPBERRY PLANTATION.

Many of our fruit growers neglect to cut out the old canes of their raspberry and blackberry bushes until the spring after they have fruited, either from neglect or because of a notion that they afford some protection to the young canes. The only possible use in this respect, which they can serve, is in helping to gather snow banks about them, a very inefficient means of securing winter protection. If in a place where it is necessary to protect them, some better method should be adopted than that of leaving a mass of ugly, straggling brush standing in the rows, impeding the growth of the young shoots and spoiling the whole appearance of the plantation.

To this we will refer in a future number; and in the meantime advise our readers, if they have not already done so, to make no delay in cutting out the old canes, and in thinning out the new ones to three or four from each stool; for this will allow all the strength to go to the development of the bearing canes for the next year, and give more room for their proper development.

Some of the small fruit growers at Grimsby have just completed the task of clearing up their plantations in this way, and the better condition for growth and fruit bearing strikes even the least observant passer-by.

Where the canes were shortened back in the month of July, it will now be in order to cut back the side shoots, especially of the blackberry bushes; for the greater number of fruit buds that we can grow near the

ground, the better. All this rubbish ought to be gathered up and burned, if any reputation is wanted as a tidy cultivator.

STRAWBERRY PLANTS.

We hear a great deal about potted plants, and no doubt that for removing a long distance, they are very desirable; but on one's own place, in a wet time, young plants may be removed quite as successfully without any pots. They may be lifted with a spade and a ball of earth, in such a manner as to be almost unchecked in growth, and if done before the end of August, they will bear a fair crop the next year. Wm. Falconer says in a late number of the R. N. Y., that from plants set in July or August, he gets a capital crop the following June, and invariably his largest berries.

The *Jessie* receives a great variety of criticisms, both favorable and adverse. Our own were in no way disappointing, being fully up in size to all expectations. But most people are too ready to pass judgment on a new thing, after the very slightest experience. It is not enough to have a few plants in the garden; one needs a large plantation to be able to judge fairly. Secretary Williams, of New Jersey, speaks very favorably of this berry, but prefers the Pearl, because more regular in shape. The *Jessie* is larger, but has a tendency, inherited from the *Sharpless*, to ripen unevenly, and to lose its flavor soon after ripening.

Of the *Bubach*, he speaks very favorably as follows: "Bubach is the most promising of the newer varieties, fruiting with me this season for the first time. It is early, large, bright-colored, handsome, vigorous and productive, and ripens evenly—all valuable traits in any berry. The quality is hardly up to that of some of the others, but still I think it will do to plant more of it." Secy. Crawford also commends the *Bubach* as being the "largest berry that bears a heavy crop. The plant is faultless. The blossom is pistillate and quite hardy. The berry is not firm enough for a distant market, but it is the berry for a home market.

Little's No. 4., a seedling of our old friend, Mr. John Little, of Granton, is also highly commended by Mr. Crawford. He says "This was the finest berry, all things considered, that I fruited this season. The plant is strong and vigorous, has a perfect blossom, and continues in bloom a very long time. I think it is the most productive very large berry that I have ever seen." This accords with our own experience with it this season. Its free bearing and immense size were points that we noted down especially, but we intended to give it another year's trial before speaking of it.

We have now about fifty varieties under trial at Maplehurst, and we hope to make the results helpful to the members of our Association in course of time.

SUCCESS WITH ENGLISH GOOSEBERRIES.

MR.EDITOR,—The gooseberry season being now nearly over, I shall give your readers a few words regarding some experiments which I have been making with English varieties of that fruit. I have been testing forty different kinds, and am convinced that with generous treatment and careful pruning, with a view to renewing the wood, the only thing to be dreaded is *overbearing*. If the bushes are not allowed to rest, by stripping them almost entirely of their fruit, at least once in eight years, there is a great likelihood of the bushes becoming exhausted, and eventually dying. This has been my experience with the Crown Bob, Whitesmith, Red Warrington and Ocean Wave, which I have grown for the last fifteen years.

During that time I have had an abundant crop every year, except with the exhausted bushes, and have had no trace of mildew on any of the English sorts. I feel persuaded that on a clay or clay loam soil with proper care mildew need not be feared; on sandy soil or a sandy loam I have no experience and cannot speak.

I know of no other small fruit which will give such abundant crops or so well reward the labor of its cultivator.

I am in favor of training the bushes to a single stem of about eight inches from the surface of the ground to where they branch out. I have tried stems fifteen inches high but found

the plants were not so vigorous in growth, did not bear so heavily, and were not so long-lived. The nearer the ground, while securing a free circulation of air under the branches, the better.

The severe frost this spring caused a good many of the blossoms and partly formed fruit to drop off, and the intense heat in July injured many more, causing them to whiten on the side exposed to the rays of the sun, and by and by to drop off, while others not so badly scalded by the sun were so injured that they did not mature properly. The Industry suffered most from the heat. Fully one-half dropped off and the remainder were so injured that I failed to get a single good berry. My experience of this variety leads me to believe that it has been greatly over-estimated. It has not yielded such large crops nor is it equal in quality to the most of the English sorts which I have tested.

The following tabulated statement, which will be found on the next page, is the result of my experience :—

The others, I have not their names or have not sufficiently tried them to decide on their merits.

In conclusion I would suggest that some of our hybridizers would be rewarded by hybridizing with the pollen of some good English variety on the best American, and would confer a great boon upon those whose soil is sandy.

ANALYSIS OF SIZE, ETC., OF GOOSEBERRIES.

NAME.	SIZE.	QUALITY.	BEARING.
RED VARIETIES.			
Industry.....	3¼ x 2¾ in.	Moderate	Good bearer
London.....	3¼ x 3	Good	"
Speedwell.....	3½ x 3	Excellent	"
Red Warrington.....	3 x 2½	Delicious	Heavy bearer
Lancashire Lad.....	3½ x 2¾	Excellent	Good bearer
Rifleman.....	3¼ x 2¾	Good	"
Dan's Mistake.....	3¼ x 2¾	Not a good table but excellent preserving	"
Bloodhound.....	3¾ x 3¼	Superior	"
One of them.....	4¼ x 3½	"	Heavy bearer
Smolenski.....	3¾ x 3¼	"	Good bearer
Wonderful.....	4 x 3½	"	Heavy bearer
Crown Bob.....	3½ x 3	"	Very heavy bearer
GREEN VARIETIES			
Ocean Wave.....	4 x 3¼	Superior	Heavy bearer
Thumper.....	4 x 3¼	"	"
Duke of Sutherland.....	3¾ x 3¼	"	"
Freedom.....	3½ x 3	"	"
Jolly Angler.....	4 x 3¼	"	"
Stockwell.....	4 x 3½	"	"
Ringer.....	3¾ x 3¼	"	Abundant
YELLOW VARIETIES.			
Two to one.....	4¼ x 3¾	Very good	Good bearer (not fully tested)
Companion.....	3¾ x 3¼	Good	"
Coiner.....	4 x 3½	"	"
Shiner.....	4¼ x 3½	"	"
Princess Royal.....	3½ x 3	"	"
Leveller.....	4 x 3½	"	"
Queen of Trumps.....	3½ x 3	Moderate	"
Catherina.....	3½ x 3	Good	"
Plunder.....	4 x 3½	"	"
Overseer.....	3¾ x 3¾	"	"
Keepsake.....	3¾ x 3	"	"
Champagne.....	4 x 3½	Superior	Abundant
WHITE VARIETIES.			
Whitesmith.....	3½ x 3	Excellent	Abundant

August, 1889.

A. MORTON, *Brampton, Ont.*

PREVENTION OF GOOSEBERRY MILDEW.

IN the August number of the Horticulturist Mr. F. W. Porter, of Mount Forest, writes that he has solved the problem of effectually stopping the mildew on the gooseberry. The experiences of another year in gooseberry culture have added further strength to my conviction

that plenty of air, plenty of sunlight and a liberal use of hardwood ashes as a top dressing are all that one requires to effectually prevent mildew. The solution, you will see then, is a very simple and natural one. For three years I have experimented with ashes in gooseberry

culture, and my success has been gratifying in the highest degree. Last year every grower of the Whitesmith in town, except myself, complained that the fruit was not worth picking on account of the mildew. Out of my fifty bushes of that variety not a single specimen could be found that was not as clean and bright as it is possible for a berry to be. This year other growers in town have suffered to a greater or less extent, while I have invited my friends to go through my Whitesmiths, Golden Drop, Industry, Crown Bob, and a large English variety, and find a mildewed specimen if they could. They could not do it. My soil is a clay loam with a western slope, giving it a fair natural drainage. I have my Whitesmiths planted five feet apart and Industry four feet apart, in the row, with six feet between the rows. I dig about the

bushes every spring and apply a coat of ashes immediately underneath them every second year; and for size and thriftiness of bush, for heavy bearing and for the size and perfection of the fruit several experts have told me that my garden excelled anything they had seen.

Now, in this matter I do not claim to have solved any problem. Nature's methods are perfect and if unobstructed in her operations she will give perfect results. Let the sunlight into the bushes; give plenty of room for a free circulation of air; purify the soil with unleached ashes and if the results are not satisfactory I have studied nature's methods and operations in vain, and my faith and confidence in her laws governing the vegetable kingdom have been misplaced.—T. H. RACE, *Mitchell, Aug. 17, 1889.*

A NEW JERSEYMAN'S REVIEW OF THE STRAW-BERRY SEASON.

CRYSTAL CITY came in a week ahead of other varieties. We have tried nothing yet which will take the place of it for the table as it is so early and so good, but it is not sufficiently productive for the market. May King is also a necessity on account of its extra quality, and it sometimes produces paying crops for market, but oftener not over two-thirds as much as Crescent and other market sorts.

Among newer varieties *Warfield* No 2 is most promising for market. It is pistillate, and an immense runner like the Crescent, and like that

makes rather small plants under ordinary circumstances, but the berries are fifty per cent. larger on an average through the season, firmer and of better color, and at least as productive, a small plat of them (1-40 of an acre) having produced this season at the rate of nearly 7,000 qts. per acre with ordinary treatment. This berry is broadly conical with a slight neck, of a bright crimson scarlet as usually picked for market, coloring all over very evenly. When fully ripe it is a dark glossy crimson. It is, however, too acid to eat without plenty of sugar and cream. Decidedly promising.

Haverland, another pistillate variety, is equally large and productive, and would be equal as a market berry if not rather light in color which is a light scarlet. It is not so acid as *Warfield*, but rather watery and insipid in flavor. Some of these, which were transplanted in May, when nearly ready to bloom, produced a fair crop. *Gandy* is a promising very late variety, being this season just two weeks later than *Crystal city*. It is an exceptionally strong grower, and the first berries which ripened were the largest of the season, but the balance of the crop has not kept up the extra size. In color it is a bright scarlet; the quality is good, and it is firmer than any other variety we ever tried, except *Atlantic*, but it has not this season produced enough to make it a paying variety for market, and a considerable per cent. of the berries have a hard tip. In spite of these defects, however, we value it highly as a late variety for our table, and think it has come to stay.

We hoped to see *Jessie* turn out a bigger crop this season than last but it has not done so, and although it has some excellent qualities as a market-berry, prominent among which is great firmness, we fear that for our section, it will only be retained for its extra quality, and will not

be much grown for market. It also has the fault of being very variable in size, producing some very large berries and quite as many small ones.

Bubach No. 5, is remarkable for size of growth, very large and very productive, yet I do not like it; it is soft, and most of the berries cock-combed with deep and irregular sutures between the lobes.

Bomba, with us, rusted both last year and this worse than any other variety, and of course the fruit was worthless. *Pearl I* has only been fruiting on very poor sandy land without culture, and it produced all that could be reasonably expected. The berries are good size and good in quality and fairly firm, but not very bright in color. Plants which we set in September last on good soil are making a vigorous growth.

Cloud's Seedling set this spring gives promise of being more productive, and of larger size than any other very early variety we have yet seen, and it is of fairly good quality, but not nearly as good as *Crystal City*. Among older varieties which have some excellent points we shall retain *Prince of Berries* and *Indiana*, the former for its good quality and lateness; both would be good market varieties if a little more productive.—*W. F. Bassett, in Popular Gardening.*

GRAIN AND FRUIT A POOR COMBINATION.

THROWING AWAY THE POUND TO GET THE PENNY.

THE practice of sowing wheat, oats or barley in orchards even after they have reached fair bearing age, seems to be still quite common among farmers. At least orchards thus treated can be found in every neighborhood. On its very face the practice appears like robbing Peter to pay Paul. In fact, it is much worse. We should bear in mind

that the same amount of plant food needed for the production of thirty bushels of wheat is more than sufficient for the production of 600 bushels of apples, or a corresponding quantity of other fruits. Suppose an acre of apple orchard contains sufficient plant food for thirty bushels of wheat crop. If we devote all this raw material to its legiti-

mate purpose (the production of fruit) we will raise on that acre, say 600 bushels of good apples, worth \$1 50 or upwards. Many farmers, not satisfied with this, attempt a system of double cropping, and sowing wheat among the trees, use up half of the plant food in the production of fifteen bushels of wheat, worth not over \$15, thus leaving only raw material enough for half a crop of apples.

In the spring the trees had made all preparations for a full crop, setting fruit freely, and this fruit, for the want of the needed supply of food which the wheat has consumed meanwhile, remains partly undeveloped and undersized, so that the market value of even that half crop grown is greatly impaired. The half crop will certainly not be worth half the money, and the 300 bushels are much more liable to bring less than \$60 than to bring more. Now let us compare results. The apples grown without grain gave us \$150. From the grain and fruit combination we receive \$60 for fruit and \$15 for grain, an aggregate of \$75. This amounts to a loss of \$75 per acre; and it is a loss plainly tra-

ceable to double cropping. In other words, the cost of production of every bushel of wheat grown in a bearing orchard is not less than \$5. I think this is a plain statement, and should convince every grower the extreme folly of the practice. Now I might follow up this line of inquiry, and also call attention to the sickly look, the yellowish leaves, and the feeble growth generally found in orchards habitually cropped with grain. The loss, figured out, is not a temporary one. The injury to the trees themselves is still more serious, as it is permanent and in a measure irreparable. Robbed of the mineral plant food, the trees are stunted, and forever incapable of producing first-class fruit, unless, perhaps, by the most careful nursing afterwards.

The best treatment that could be given to an orchard injudiciously put in grain last spring, is to let stock tramp down or eat up the halms before the grain is formed, or to mow it at this period and leave it right on the ground where it fell as a mulch.—*T. G. R., in American Garden.*

CAUTION IN THE USE OF POISON.

AT the latest meeting of the Social Science Association, reports proved that not one New England homestead out of twenty is conducted on correct sanitary principles. The cellar, as yet built and used, is still almost invariably a pestilential adjunct to homes. Probably the only means of avoiding the danger arising from these dug-outs, will be to dispense with them altogether. In their place we should build underground storehouses separate from the houses.

Certainly it has become a criminal affair to reside and rear children above damp rooms in which are stored large quantities of vegetables

and fruits undergoing a slow process of decomposition. The most careful attention to ventilation and removal of waste will not keep such apartments safe when located under our living and sleeping rooms. Recent scientific investigation has shown it to be beyond question that the typhoid fevers and diphtherias, with a thousand minor forms of disease, are traceable to precisely these causes. The skilled physician finding the disease, immediately searches for a neglected cellar, or sewer, or poison-infested well.

But I desire to call attention to some other sources of danger.

At this moment I am suffering

from a unique and yet not an uncommon sort of poisoning. Having placed a lawn chair, covered with a coat of cheap green paint, in my study, the arsenic contained in the paint was volatilized by the heat of the radiator until my whole system was penetrated with the mineral. It will be months before I will recover my health.

The use of arsenicated paints is growing more and more common, but should never be tolerated on furniture or wall inside the house. Green shades of wall paper are to be avoided as probably containing arsenic. Whole families have been poisoned by such apparently harmless decorations.

The extensive use now made of Paris green and other arsenical poisons should be a warning to us. Some of our ablest physicians insist that there are forms of disease traceable directly to the presence of arsenic in the potato. This, I doubt, and yet it seems certain that the use of arsenic on vegetation more or less checking the perfectly healthy de-

velopment of the leaves, produces a chemical change in the tubers detrimental to health.

It is getting almost impossible to purchase potatoes entirely free from a tinge of bitterness, while a very large part of the potatoes that find their way to market are quite unfit for use. Many farmers use five or ten times as much Paris green on a potato field as is necessary for the purpose of destroying the Colorado beetle.

The practice of sprinkling Paris green into cabbage heads is criminal and inexcusable.

I have recently seen the account of five persons having been killed by the use of such cabbage.

Probably there is no direct danger, from the recently derived method of spraying apple and plum trees, to the fruit eater, but there is serious danger to those who handle the poisons. Paris green should be used and stored with every precaution. We are getting quite too familiar with the drug and are losing our fear of it.—*Maryland Farmer.*

CULTIVATION OF PEACH ORCHARDS.

IT has been our experience that the best cultivated orchards pay the best. The trees thrive admirably under the severest cultivation. It might seem that the mutilation of the roots of a tree, while in a growing state and so near the surface as are those of the peach, would enfeeble or kill it outright. But it is not so. The aerating and pulverising of the soil more than compensates for the injury to the roots. A leading and successful peach grower in Michigan says: "It puts me out of patience to hear any one whose opinion has any weight deprecate or discourage in any way the most thorough cultivation. I have an orchard

which for eighteen years has been plowed annually, to the depth of five or six inches, some time in April or May; then in about two weeks when the weeds have sprung up, a heavy harrow has been passed over both ways. After this when the weeds were stronger and larger, a two-horse cultivator set to run four or five inches in depth has been passed over from three to five times during the season. This is each season's cultivation, and I suppose, according to many writer's views, that my trees ought to have been dead long ago; and yet I believe there are more peaches of the best quality grown on the same number of trees than in any

other orchard in the State. Trees eighteen years old have made a growth of from one to three feet in one season while bearing a heavy crop.

The cultivation required by the peach is simply to keep the surface mellow and free of weeds. In

making the annual plowing in spring, it is well to use a light low plow, plowing very shallow. In after culture and for keeping the surface clean and mellow there is nothing better for performing the work rapidly and thoroughly than the Acme harrow.—*Orchard and Garden.*

THE SIMON'S PLUM.

Editor of the Horticulturist.

DEAR SIR,—I regret that through the effects of the late June frost I am not able to send you a perfect sample of the *Prunus Simoni* this year, my tree only bearing two specimens and those not perfect. I send you one of them which was stung by the curculio or some other insect and dropped off, and though not quite up to your plate in size in the July number, I think you will agree with me that it is considerably above one-quarter of it as it measures $5\frac{1}{2}$ inches in circumference; and I think you will agree with me, also, that we must have a better strain of this plum than our pomological friend, Mr. Van Deman, is accustomed to seeing, or that our Canadian soil

is better adapted to their growth than that of the States. (The quality I do not expect to be perfect in its present partially decayed state.)—A. M. SMITH.

NOTE BY EDITOR.—The sample is very well represented in our colored plate in color and form, and in size it falls so little short that the plate can hardly be called an exaggeration. Indeed there is upon the tree another which exceeds this one in size, and when fully matured will probably equal the representation. We think, in this case at least, that Mr. Van Deman's criticism was over severe. We may add that the aroma of this fruit is most agreeable, and the quality very good indeed.

DECEASE OF REV. R. BURNET.

WHEN we gave our readers the sketch of Mr. Burnet's life in our January No. we had little thought of having to chronicle his death before the end of the same year. This sad event took place at

Milton, Ont., on August 13th, at the age of sixty-six, and the news will be received with sincere regret by the officers and members of our Association, to which he rendered such active service during his Presidency.

FLOWERS

Support for Climbers Essential.

A distinctive fact in plant growth not generally thought of, is the waste of vital force in all vines unable to clasp surrounding objects by tendrils or by their young shoots. By actual experiment, the yield of flowers and fruits on uncared-for vines has been decreased sufficiently to prove that the little time needed to tend these plants at the proper season is a paying investment. Vegetable gardeners have long been aware of this in cultivating Lima Beans, although many of them may not know how very important it is to assist the tender tips to clasp the support. And the same rule governs growth and development of peas, especially the taller kinds. If no support is furnished them the inconvenience of gathering the crop is a small matter in comparison with the loss sustained by the plant in its efforts to climb as nature intended. The same law applies to plants cultivated for the flowers. Annuals, such as Cobœa, Baclyana, Cypress-vine, etc., will produce finer and more blossoms if supplied with adequate support than if permitted to struggle along unassisted. Perennial wood-climbers are no exception. If we remove the support from Wistarias, Tecomas, Celastrus, etc., their nature undergoes a change, and the inclination to climb is apparently lost, but if at any time some foreign body is placed near by, the old tendency returns, and the young shoots eagerly clasp it and at once begin their normal upward growth. Gardeners have taken advantage of this peculiarity, and, by close pruning as well as dispensing with any support, have metamorphosed the climber into a pretty tree-like shrub. The solution of this apparent mystery is not difficult. The

change of habit is due to loss of vital force occasioned by the plant's struggle for its natural condition. This same principle may be exemplified in the grape, which, although producing a crop when pruned severely and tied to a single stake, does not yield so abundantly as when growing freely over an adequate trellis.—*Josiah Hoopes, in N. Y. Weekly Tribune.*

Management of House Plants.

ONE of the chief requisites in management of house plants is plenty of sunshine, next an atmosphere neither too dry, nor too close, and a uniform temperature, lower during the night than during the day.

WATERING.—Rain water is better than spring, or well water. Hard water may be greatly improved by adding a drop or two of ammonia, or a little soda, a small nugget about the size of a pea to every gallon of water used. Morning is the best time to give water, and evening next. Never water house plants when the sun is shining brightly upon them. The supply of water must be regulated according to the demands of the plants. The condition of plant and soil is the best guide. Never give water when the soil is moist to the touch. Nearly all plants require more water when in bloom than at any other time, more in a warm temperature than in a cold, and more when in a state of active growth than when at rest. Plants in open rooms usually require water once a day and some demand it twice.

SYRINGING.—Cleanliness is essential. The leaves of plants should be kept free from dust, hence frequent washings are absolutely essential, although when watering, never wet

the flowers of a plant, nor allow drops of water to stand on the leaves in the sunshine. Never allow water to stand in the saucers of the pots unless the plants are semi-aquatic. Watering supplies plant food or elements of fertility contained in itself and converts the plant food, or nourishment of the soil into a liquid form, so that it may be absorbed by the roots. The roots of a plant should be kept moist, not wet. Where the drainage is the most perfect, plants will generally be the healthiest and will need watering the oftenest.

Give house plants as much light as possible during the day, and darkness with a lower temperature at night. A uniform temperature of 60 or 70 degrees in the daytime, and 40 to 45 degrees at night, will give the best results. Turning the plants toward the light should not be done, unless done regularly. Besides light, house plants require a good supply of fresh air. Ventilation is absolutely necessary.

REFRESHING CUT FLOWERS.—The question is often asked, "How can I restore or refresh this flower?" It may be a rare flower, or one that is prized highly, as the gift of a friend. In either case joy will follow its restoration. Cut flowers have frequently been restored to freshness, even when every petal is drooping, by placing the stems in a cup of boiling hot water, leaving them until the petals have become quite smooth, then cutting off the cooked ends and placing in luke warm water. For this purpose rain water is thought preferable. The freshness of cut flowers is due wholly to two conditions. Either evaporation from the flowers must be prevented by enclosing in a case containing a saturated atmosphere, or the evaporation must be supplied by moisture at the cut end or stem. This stem is composed mostly of woody fiber, or cellulose, whose power to absorb water soon diminishes, hence to enable the stem to

absorb the most water, the end must be frequently cut off.—*Sec. C. Watson, before Clyde Grange Nat. His. Soc.*

Fall Treatment of Roses.

Don't forget the roses this fall. Place a good covering of manure on the ground and fork it in very lightly next spring. Ever-blooming roses in the open ground must have special care. They should always be planted with two or three buds below the surface of the ground. There are very few tea roses hardy enough to winter out of doors in New England. But the hybrid teas and the Bourbons are hardier, and if they be killed to the ground, the buds below the surface will send up strong canes that will give the best of blooms. Whether canes be killed to the ground or not, they should be cut off close to the earth every spring. The soil can hardly be made too rich for this class of roses.

Before the ground freezes each fall, the earth should be drawn up around each plant in a little hill, and a heavy coat of manure applied. Then the entire bed should be covered thickly with evergreen boughs or a similar mulch. Hybrid perpetual roses should be carefully bent to the ground and covered with the same material. Persian Yellow and Harrison's Yellow are entirely hardy and need no protection. They should be pruned sparingly. But as these roses bloom better on new canes, it is well to have more than one plant and to prune each rather severely in alternate years, because these, especially the Persian, do not often throw up new canes as long as they have old wood upon which to grow flowers. Severe pruning induces new canes, and while it is growing, of course the plant does not produce so many blossoms. If one be setting roses this fall, he should remember that to set them near large trees is fatal, as they will be starved to death, the trees robbing them of their nourishment.

FORESTRY

LAWN TREES OF FAST GROWTH.

By T. W. GROVER, B.A., NORWOOD, ONT.

THERE are now several nurseries near the principal cities of the Eastern States making a business of supplying large trees, twenty or thirty feet in height, for newly made premises, and all the nurserymen say the demand for large trees is increasing. Purchasers insist on immediate effect, and, generally, regardless of expense, want a tree that will cast a shadow on the lawn today rather than a seedling in which is only a hope of a tree some day in the future.

The forest planter, of course, is more concerned in securing a good seedling of any size and at a cost of money and trouble not too great to be calculated by the acre. A forest, containing the largest percentage of thrifty trees, is far more attractive than a single specimen of the greatest beauty when profit is considered in the planting.

The removal of these large trees is not difficult. The system of preserving a large ball of earth has been abandoned, and it is found that, properly transplanting just after the death of the leaf and before its fall, the large tree is not more trouble than smaller trees or more risk on our Canadian lawns. If we were paying five dollars each for trees, we would probably get discouraged if we found a percentage of loss, which we would not notice in trees at five dollars per hundred.

Without waiting for the time when we will have millionaire planters, we may have very handsome lawns by a little more pains taken with some of our fast-growing ordinary trees. No one but a nurseryman would believe the difference cultivation and care will make in the growth of any tree, or we would see more labor spent on nearly all our lawns.

The best known American tree fanciers who have laid out lawns, which are now of scientific interest, usually cultivate all the soil about their tree, or groups of trees, as well as thoroughly fertilize and mulch them just as much as a fruit grower.

The commonest tree we have, such as white ash, maple or spruce, will make more than ten times the growth when cared for properly than in a close sod or overrun with weeds. The size of the tree, as well as development of flowers and seeds or fruit, is directly dependent on the chance the tree has.

The small spruce, commonly sold by the hundred, will hardly live at all in a state of neglect, and it takes a large tree of any kind to hold its own in some places we see trees planted.

To secure trees on an entirely new lawn it should be well cultivated and underdrained as if for gardening or farming, and, after being well manured and free from weeds and being allowed to lie over all winter, it may

be planted with any size of trees found convenient. Grass seed or sod may be put where desired but not about the trees. Maple, ash, elm, basswood, box elder, walnut, larch, spruce and pine, of either native or imported varieties will develop rapidly.

For rapidity of growth only, it is likely the box elder will stand first, then the white elm and ash. In this climate the new wood on either

may reach six or eight feet a year. A little further south the catalpa ailanthus and chestnut will equal or pass these. It will be easy in any locality to find trees which will soon grow to a conspicuous size. The time spent in fitting the ground before planting is more than gained both in smaller number of failures and in the more immediate growth of all. Forest trees resemble fruit trees and repay all the care, though in a different way.

Arboricultural.

The Judas Tree.

THE Judas Tree or Red-bud of the middle and Southern States (*Cercis Canadensis*) is in bloom. It is one of the most beautiful flowering trees of North American forests; and there are no more beautiful objects than the great masses of this tree in some parts of the South or South-west, notably along the eastern borders of the Indian Territory and in eastern Texas, when they are covered with their purple flowers in very early spring. There the Red-bud becomes a tall tree, with a stout trunk; further north, although nearly always arborescent, it never attains the size developed in the more favorable climate and more generous soil of the South. It is remarkable that so fine a plant should be neglected by our horticulturists, who hunt the remotest corners of the earth for novelties with which to embellish their gardens, and pass native species which cannot be matched anywhere. *Cercis Canadensis* is rarely planted in gardens these days, and yet a plant in flower standing out alone before a dark background of Hemlocks or of Pines, or where it can contrast its purple flowers with the

white floral leaves (the two plants flower here together) of the Flowering Dogwood (*Cornus Florida*) is an object which fully satisfies the imagination, and one which is not easily forgotten. The Red-bud, although not a native of eastern New England is perfectly hardy here; it grows rapidly, and is an object of beauty from the time abundant flowers cover the naked branches until the late autumn, when the red-brown pods are ripe.--*Garden and Forest.*

Forest Trees for Ornamental Use.

THE autumn is an excellent time of the year to dig from the woods, and transplant on the grounds, specimens of our hardy forest trees; but do not make the mistake of too close planting, especially about the house. Maples are always fine, and to this we may add the Tulip Tree, Basswood, Elm and White Birch, Walnuts, Black and White, and Butternuts may be easily grown from seed, also Chestnuts. A grove may be quickly grown from Locust seed, and these trees, as well as the Basswood and Tulip Tree, are especially valuable as honey producers—*Orange County Farmer.*

The Trade in Bananas.

Few people have the faintest conception of the immensity of the trade in bananas, although it may be better understood by the statement of the fact that there are at present forty-seven steamers plying between the West India Islands and New York, engaged almost exclusively in the banana trade. The profits attached to this business have been enormous to the steamship owners, and a source of considerable revenue to importers and dealers. Large as is the production of bananas in the Islands, it is increasing rapidly, and the consumption on this continent appears to be keeping pace therewith. In Canada, this favorite fruit has become quite popular, and, where some years ago only a few bunches were required, it now takes car loads to satiate the demand. Prices vary considerably during the season, as the least scarcity causes them to advance to \$1.75 to \$2.50 per bunch, whilst an over supply brings them down to \$1.00, but fair average figures for this market are \$1.25 to \$1.50 for good, sound red and yellow fruit. It must be borne in mind however that the great bulk of bananas imported into Canada is composed of second qualities, the first being reserved for New York, Boston, Philadelphia, and other American cities. An importer stated a few days since that it was a very rare occurrence that a straight car of firsts came to this city, but the average quality of bananas sold here it is claimed are equal in flavor to the firsts, although the bunches and fruit are scarcely as large.—*Trade Bulletin.*

Forest Tree Culture.

From Annual Address of President Elliot, of Minnesota Horticultural Society.

THERE is a very erroneous impression among young people, and many old ones, that governments

ought to do all the planting in forest culture; they thinking that men's lives are too short for such work; also that the planting of trees, even if successful in growth, is a very uncertain investment to the planter. Life is very uncertain, as statistics inform us; not more so than a great many other things that we do. All prospective operations have clustering around them many uncertainties; but really, in what can a young man invest a few dollars that will give him so much real enjoyment in his old age, as the planting of a goodly number of useful and ornamental trees and shrubs? In your youth plant trees; in middle age plant trees; in old age plant trees, that they may spread their ample shade over your head when silvered with old age.

Intelligent, useful men are trying to solve the problem of reforestation of our continent. The work may not be done in this generation, but I will surely exercise the most thoughtful intellects of this land until it is accomplished. This great scheme has come to stay with the best free educators of our land. There will be discouragements and dark days for this enterprise, but it will end in either the government or private capital undertaking this great work.

Trees, like men, begin to show age and decay at the top; but men unlike trees, return to their second childhood, and if an active, useful, energetic man in youth, they never lose opportunity for doing or saying something as a source of pure enjoyment; and I would inquire what more impressive scene of unalloyed sacrifice, than this useful employment in planting trees in their declining years for future generations to admire; living monuments that shall long remain for our children to appreciate; silent reminders of thoughtful, industrious usefulness?

MANURES FOR THE ORCHARD AND GARDEN.

(Extract of Paper read before the Western New York Horticultural Society by Joseph Harris.

MANURE is a by-product. Its price is determined, not by the cost of production, but by competition among consumers. If stable manure were sold in Rochester for 10 cents a load, there would be just as much produced as if it sold for \$2.00 a load.

This view of the subject seems to be overlooked. If gardeners, nursery-men and fruit growers would study the subject of the oft ridiculed "special fertilizers" I am confident they would soon be able to use them with great profit, and not be obliged to bid against each other for the by-product of the city stables.

As fruit producers we should study to grow those crops that people are willing to pay a good price for. And if we grow crops in which the carbo-hydrates, instead of being worth \$30 per ton, are worth \$100, or \$200 or \$300 or \$500 or \$1000 per ton, we should see to it that the plants have all the food, and especially all the nitrogen, that they want to produce a maximum growth. It will not pay, perhaps, to use nitrogen to grow carbo-hydrates in hay, corn, oats and wheat, but it will pay largely to use them to grow carbo-hydrates in apples, pears, peaches, strawberries and other fruits. But it should be understood that when we use manure for fruit trees we should see that the fruit trees get it. If we grow wheat, oats, potatoes, beets, strawberries and seeds among our peach, pear, and apple trees, we should have to furnish an excessive supply of nitrates before the fruit trees would get much of it. The greater portion would be absorbed by the annual crops and weeds, and it may well happen that a moderate dressing of manure would, by increasing the growth of the weeds, actually lessen the crop of fruit, for the reason that the greater the growth of the weeds the more water they evaporate and the

drier would be the soil where the roots of fruit trees are searching for food and water.

As vegetables and fruits are improved, they require richer land, just as improved herds of animals require richer food. I do not call grass and hay rich foods; neither are phosphoric acid, potash, soda, lime, magnesia and other ash constituents rich food for plants. They are absolutely indispensable, but in addition to these we must have a liberal supply of nitrogen. It is nitrogen that makes rich land. Of the three most costly ingredients of plant food, nitrogen, phosphoric acid, and potash, nitrogen is the only one that can be evaporated or washed out of the soil, and it is only in the form of *nitrates* that nitrogen can be washed out of the soil. And there seems good reason to believe that it is only in the form of nitrates that nitrogen is taken up by ordinary plants.

One thing is certain, our orchards need more nitrates, or, as we used to say, more available nitrogen. If we can get nitrogen, it is a comparatively cheap and easy matter to get phosphoric acid, potash, etc. The cheapest source of nitrogen is the organic matter in the soil, and this is derived from a previous vegetable growth, possibly some of it thousands of years ago and some of it only last year. The more recent the growth the more readily it is changed into nitrates. It is only within the last dozen years that we know how the nitrogen of organic matter was converted into nitrates and thus rendered available food for plants. The change is effected by a minute plant, or what would popularly be called a fungus. The essential conditions for its growth are air, a moderate temperature, moisture and lime, potash or soda.

Stagnant water, by excluding air,

stops its growth; so does a reduction of temperature to near freezing and dry soil. A drained soil, well tilled and repeatedly exposed to the air, with the necessary moisture and a temperature ranging from 50 to 100 degrees are highly favorable to its growth. This is a far cheaper way of getting nitrates than sending to South America for nitrate of soda. If the matted sod in orchards was plowed, harrowed and cultivated and exposed to the air, as soon as the soil got warm these nitrate-producing plants would grow and produce nitrates for the growing plants, and if there were no growing crops or weeds on the land, the trees would get the nitrates. If you let them, the crops and the weeds will take up the nitrates. You can convert nitrates into carbo-hydrates in the form of weeds that pay nothing, or into carbo-hydrates in the form of grass or grain that pays a little, or into carbo-hydrates in the form of fruit or garden truck that is worth four or five, or ten, or twenty times as much as in the form of grain; or you may convert it into a block of nursery stock that is popularly supposed to be worth a king's ransom. If we put on half the quantity of ordinary manure, and sow broadcast 200 lbs. of nitrate of soda per acre in addition, this will be fully equivalent to a good dressing of the very richest of compost, and a good deal cheaper. I say nitrate of soda, because it is not only a cheaper source of nitrogen than sulphate of ammonia or the organic nitrogen in our different fertilizers, but the nitrogen is in just the condition necessary for absorption by the plants. I have used it with great advantage on peaches, strawberries, roses, currants, rasp-

berries, asparagus, celery, plants, potatoes, onions, beets, and nearly all garden crops. For several years we could not raise peaches; the leaves curled up and turned yellow in June, and frequently fell off, and in a year or two the tree was dead. For two years the trees that have had nitrates have shown little or no symptoms of the disease—if disease it is. The leaves have that dark green luxuriant color that is the characteristic effect of liberal manuring, and better than all we had fine crops of peaches.

But will not nitrate produce a spongy growth with immature buds, easily killed in the winter? I think nitrate of soda sown early in the spring has precisely the opposite effects. Nitrate applied early in the spring are taken up by the peach trees in May and June, or at the very time that the trees usually show signs of a lack of vigor. Late in the summer or early fall, little or no nitrate of soda would be left, and consequently would produce no late spongy growth of wood. It is true that peaches could be grown forty years ago where they do not now flourish. May it not be that the organic matter in the new soil held more water, and consequently furnished the peach trees nitrates early in the spring, and that what our peach trees need to make them as healthy and productive as formerly, is a liberal supply of nitrates early in the spring? And a market gardener, instead of using such excessive quantities of manure for the purpose of getting nitrates for his early crops, might well try if a direct application of 400 or 500 pounds of nitrate of soda, with a small dressing of manure, would not be at least effective, and far cheaper.



The Canadian Horticulturist.

SUBSCRIPTION PRICE, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees.

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

THE FENCE.—The *American Garden* is entering upon a crusade against the superfluous fence. We heartily coincide with our able contemporary in this matter, believing that fences are the greatest blot upon our landscape from an æsthetic standpoint, and that the enormous expenditure at which they are kept up are an unnecessary tax upon the already heavily burdened farmer. Could the principle once become established that cattle are to be fenced in by their owners, and not fenced out by the neighbors, a great relief would be experienced by the majority of those interested. The idea, however, is not at all new to us in Ontario, as by consulting our Report for the year 1886, page 11, it will be seen that this very thing was subject of discussion at one of our winter meetings, and the fence denounced as a nuisance that ought to be done away with, except where required to enclose one's own stock.

APPLE SCAB.—Mr. B. T. Gallo-way, chief of the Section of Mycology, of the Department of Agriculture, Washington, writes to the N. R. Y., on this fungus, drawing attention to

several important facts respecting it. The young spores are very minute, about 1-1500th of an inch in diameter! and live over winter on the young twigs, old leaves and fruit. They begin germinating about the time the young fruit is forming, and under favorable conditions, such as plenty of heat and moisture, they develop very rapidly. At first it is only by the closest inspection that the tiny specks can be discerned, but soon become plainly recognizable. If numerous, as during the present season, they cause the fruit to grow misshapen, and very small, utterly unfitting it for market. One point not generally known is that the spot continues to grow even after the fruit is gathered and stored away in the barrels for the winter.

The raking together and the burning of the affected leaves and fruit in the fall may be useful, but in an orchard of any size is almost impracticable. In our 100 acre orchard, for instance, almost every kind is, this year, more or less affected, even the Golden Sweet, which we had hitherto counted as proof against this fungus; what a task then would be the gather-

ing and burning of all affected leaves and fruit! The spraying with a fungicide is, however, hopeful, and we hope Mr. Galloway's remedy may prove effectual. It is a solution made by dissolving one half an ounce of sulphurate of potassium (liver of sulphur) to a gallon of water and he claims that this will be found as cheap, practicable and efficacious as any. The first application should be made when the fruit is about the size of peas, taking care to spray thoroughly. The spraying to be effectual, should be repeated about five or six times, in intervals of about two weeks between each.

Last year there was so very little scab, even upon the Early Harvest, that we were thrown off guard and omitted the application of any remedy, but this year, under the favorable conditions of long-continued heat and moisture, it has returned with redoubled violence and will utterly destroy a large part of the already very light apple crop. We urge upon all our readers the importance of giving a thorough trial to the proposed remedies in order that, if possible, this terrible scourge may be driven away.

THE ERIE BLACKBERRY.—On page 76 of Vol. 10, of this journal, some reference was made to this new blackberry as being as large as the Kittatinny, almost early as the Early Harvest, as vigorous and as hardy as the Snyder, free from rust, and of the best quality.

We have this berry fruiting now on Maplehurst Fruit Farm, and find that, on the whole, it bears out the claims made for it. The Kittatinny is only just beginning to ripen freely, (Aug. 8th), and almost the whole of the berries on the Erie are ripe, so that evidently it would be very desirable as an early berry to precede the Kittatinny. It is a vigorous grower and in this respect a great contrast to the Early Harvest,

which is a poor grower. In size it would average nearly as large as the Kittatinny, and rounder in shape. It is a little firmer than the latter, and on this account would be better shipped, but has not the hard core of the Lawton. The weak point about it appears to be that it is not more hardy than the Kittatinny, and therefore we fear it cannot be recommended for our colder sections.

HEAVY RECLAMATIONS.—The *Trade Bulletin* of Montreal, in its issue of July 12th, states that very heavy reclamations are being made by English houses upon Canadian shippers and farmers, on apple shipments of last year which have turned out disastrously. Several of these claims are said to be so large as to ruin the persons making the shipments, and they are being placed in the hands of proper parties for collection. The total amount of these claims amounts to between \$50,000 and \$75,000, showing how very disastrous were most of the apple shipments of last season, when the fruit lacked all this of paying even the freight charges. The *Trade Bulletin*, writing in the interest of the trade, of course, uses all this to point out the evil results to Canadian growers of attempting to ship their own fruit direct to English houses. Now, while on account of ignorance of the standing of houses so far away, and of proper methods of packing, etc., this advice may be wise for all small growers to follow, yet for large growers we consider it is the height of folly to pay charges to two commission houses, one in Montreal and one in England. Of course it is very important to make a connection with some *reliable* English house, but is not this just as important in shipping to a Montreal house? We have ourselves had the misfortune to lose money with Canadian commission men even, so that there is need of caution even in honest Canada.

It is our aim to introduce to our

Canadian growers, through our advertising columns, some reliable apple merchants both in Montreal and in England, and thus put our readers in the way of placing their apples in the best possible hands. At the same time we would advise all small growers to sell their fruit at home at any fair price, rather than to try the doubtful chance of consignments to a distant market.

THE ENGLISH WOODBINE.—The *Garden and Forest* speaks as follows regarding this climber: "It is surprising that the English Woodbine (*Lonicera Periclymenium*) is not more generally grown in the gardens of this country. It is one of the most beautiful of all the climbing honeysuckles—a perfectly hardy plant, and the delicious fragrance of the flowers is unequalled. The flowers are pale-red externally with yellow throats, and are produced from the ends of the branches in closely sessile heads which are stalked above the upper pairs of leaves, which are closely sessile though not united. This is a widely distributed plant, from Scandinavia to the shores of the Mediterranean." The "Dutch Monthly" is a variety of this plant, so named, it is said, because it originated in one of the Dutch nurseries. The flowers are rather

darker than those of the species. These honeysuckles flower quite continuously during the summer months, and there are no more charming plants to train over the porch or verandah of a dwelling house, that the fragrance of their flowers may be enjoyed constantly.

THE GRAPE CROP along the Hudson river, according to the *New York Herald*, has been thinned out at least one half by the unusually heavy rains that fell about the beginning of last month. Even the Concord was shelled off to the ground like snowflakes. Truck gardeners complain of very heavy losses, as well as farmers generally. Strange that such heavy and continuous rains should have fallen in Eastern New York State and along the coast of New Jersey, and that we in Ontario should be suffering from such a long continued drouth, that our raspberry crop was cut short and our crop of Kittatinny blackberries are dried up completely on heavy ground. These circumstances, following the frost of May 29th, have resulted in high prices for all small fruits; and the prospects are that those vineyards escaping the mildew, the frost and other calamities, will bring their owners satisfactory returns.

QUESTION DRAWER

The Yellows.

70. THE last two years the peaches on one of my peach trees have grown to the size of marbles and then stopped growing altogether, and of course never ripened. Can you tell me the cause, and also the cure if any?—W. W. R., Toronto.

We think your tree must be affected with the yellows, which often shows itself by the symptoms which you mention. The disease is usually recognized by (1) the premature

ripening of the fruit. Sometimes this occurs on a single limb only, but, within a year or so, it affects all parts of the tree. (2) The next mark is the singular color of the fruit when ripe, it being mottled and dotted exteriorly with red, and on the inside the flesh is also streaked with red; while that about the stone is wholly dyed that color. (3) The third mark is the growth of summer shoots of a dwarfed and feeble appearance; and

the following year of curious tufts of sickly-looking leaves. In the course of two or three years the tree usually dies. Other diseases may somewhat simulate the yellows, as, *e.g.*, the effects of the peach-tree borer in the root; the presence of the root aphid; or the yellowish look of the foliage of trees growing upon a wet sub-soil. There is no established cure for the yellows. Some Massachusetts peach grower claims to have effected a cure by the use of muriate of potash, in cases where the disease had not gone too far. We have found in our own orchard much benefit from the liberal use of unleached wood ashes applied broadcast under the trees. We cannot see that any cases have been positively cured, but certainly a wonderful thrift has been imparted to the whole orchard, and we venture to say there is not a healthier nor thriftier peach orchard in the Niagara district.

The Early Green—A Seedling Plum.

71. I SEND you for your inspection my seedling plum "Early Green," which, considering its size, fair quality, and in particular its early season (1st Aug.) of ripening, I think may prove worthy of cultivation. Hoping you may receive the box in good order.—W. HOLTON, Hamilton.

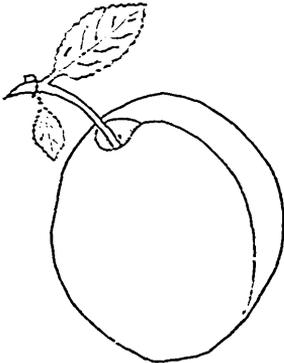


FIG. 66.—OUTLINE SKETCH OF THE EARLY GREEN.

This is a delicious plum of most excellent quality, of medium size, roundish in form, with a delicate skin marbled in two shades of green; the pit is small and free. The stem is delicate and about $\frac{3}{4}$ of an inch long.

In our opinion it is well worth disseminating and other points proving favorable, it will take a prominent place among our market varieties. We have prepared an outline drawing from one of these specimens which fairly represents its form.

Robson's Prune.

72. YOURS of the 31st ult. to hand, re seedling prune. Only having two prunes left I am pleased to forward you one by to day's mail. The tree is bearing well this season and I shall be ready and willing to send you a sample in the fall if approved. If this plum has any merit in your estimation kindly let me know, and you will oblige.—W. M. ROBSON.

The quality of this prune is excellent, and in a good state of preservation. We hope to see more of it in order to form a more correct opinion of its value.

Cultivation of the Apple Orchard.

73. I HAVE an orchard that is from fourteen to fifteen years old and it has always been under cultivation. I am told that you never plough but let your orchards alone for years, using a top dressing of manure and wood ashes. I saw in the report that Mr. Dempsey cultivates his orchard and grows potatoes or corn. Would you please either send me an article on the subject or write me what you think. How much manure and wood ashes do you use per tree? I have great confidence in what you say as I have heard so much of the success you have in fruit growing. An early reply will greatly oblige.—J. FUNNELL, SR.

It is a mistake to say that we do not cultivate our orchards; we cultivate thoroughly for the first ten or fifteen years until the orchard is well established, and then seed down to clover; leaving it in that shape only so long as the trees show a thrifty growth, and when they begin to show any lack of vigor we at once work up the whole ground. The better cultivation and care of the apple orchard is one of the points which we believe our representatives at Farmer's Institutes should press most emphatically upon the attention of the farmers. We do not mean by cultivation simply the growing of some other crop in the orchard, though this may sometimes be done to advantage; but the particular cultiva-

tion of the trees themselves, as if they were, as indeed they should be, esteemed the most important vegetation occupying the ground. Nor do we mean ploughing deep furrows between the rows of trees and leaving the rows themselves in sod, to extract the strength and moisture from the soil, but a working up of the whole field, and the clearing away of all the grass and weeds from about the trees. What would be thought of any farmer who would treat a corn crop as he often does his apple trees, and leave the sod along the rows or about each hill; and yet that kind of cultivation is counted all right by many persons in the apple orchard. Great care must be taken, however, to plough shallow furrows, or great damage will be done to the roots of the trees. Cultivation exposes the elements of fertility, which are already in the soil, to the action of the air; by which they are rendered soluble, so that they can be taken up by the roots for the benefit of the tree. Cultivation also, if kept up during the heat of the summer, serves to keep the ground in a moist condition, and thus bring about a large growth of the fruit. With regard to the use of manure and ashes, we are convinced that herein lies the secret of the successful orchard and fruit garden. Potash enters largely into the composition of the wood as well as of the fruit of our orchard trees, and it is astonishing what an effect is brought about by its use. The writer has been in the habit of applying about a thousand bushels each year to his orchard, applying about a bushel every second or third year to those of bearing age. This, in addition to thorough tillage, has brought about wonderful results in the vigor and fruitfulness of the trees. It is difficult to get a sufficient quantity of barnyard manure to spare much of it for the orchard; but where it can be obtained it should be applied, as well as the ashes.

Aloe and Agave.

74. I HAVE a nice little specimen among my house plants of what is commonly known as Devil's Tongue, as well as one of the variegated Indian Aloe. Please inform me in your next issue what is the technical name of the former, and if it is of the same species as the Aloe, also what is the proper cultivation of both; also the proper soil for Ice and Dew Plants and others of a succulent nature which are not of the Cactus tribe. I am very much interested in the great improvement of your journal.—R. H. LIGHT, *Kingston, July 10th.*

Reply by N. Robertson, Supt. Govt., Grounds, Ottawa.

ALOE VARIEGATA is the botanical name of the variegated aloe. I am glad you bring this matter up, because much confusion exists amongst amateurs over the Aloe and Agave, clas- sifying them together. Now they are two distinct orders; the Aloe belongs to the Lily order whilst the Agave belongs to the Amaryllis tribe. The Aloe flowers every year, producing long spikes of tube-shaped flowers, and every part of it may be said to be a purgative. The variety Socotrina is the variety from which the medicine called Bitter Aloes is taken. They are natives of the Island of Socotra. When grown as house plants they should be potted in light sandy soil, as it will bring out the flowers, in better color; but when larger specimens are wanted a stronger soil may be given. They are plants of easy cultivation, but, like all classes of succulent plants, must have perfect drainage. They will not stand sour soil. They are propagated easily by the numerous offsets they throw out.

The AGAVE is called the Century Plant because it was said to only flower once in a hundred years, but it will flower in twelve or fifteen years, and then it exhausts itself and dies. It is a native of South America.

By DEW PLANT, I think you refer to *Mesembryanthemum Crystallinum*, but there are several hundred varieties of them. It is also called Ice Plant, as leaf and stems are covered

over with small watery pustules that appear as fragments of ice. A light soil, with full exposure to sun, is all they require. There are annual and perennial varieties of them.

Hardy Irises.

75. CAN you tell me in the next issue of the HORTICULTURIST what variety of Iris would stand this climate?—*Levi F. Selleck, Morrisburg.*

Reply by N. Robertson, Ottawa.

Of the Iris there are three distinct kinds, but many hybrid species have been introduced. So far as I have seen, all are hardy. The bulbous varieties should be taken up every second year and replanted, as the formation of new bulbs is always downward, and if this is not done the bulbs get too far down and soon die out. This has been frequently attributed to frost killing them, they

are all the better of a transplant after several years. Light sandy soil is what they prefer.

Apple for Name.

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

SIR,—I forward you by mail an apple. If you could inform me of its right name through the CANADIAN HORTICULTURIST, you will oblige. It has grown on a young tree that was planted about five years ago. I have two more trees of the same variety which appear to be early and good bearers. The trees were without labels when I came on the place three years ago. I may have thers to name.—*G. PEDRICK, Walkerville.*

The apple you have is a fine specimen of the Duchess of Oldenburg which was illustrated with a colored plate in the May No. of this Journal. We shall be glad to name any samples of fruit you may send unless they are either local kinds, or varieties little known.

OPEN LETTERS

Pruning Blighted Pear Trees.

SIR,—We have just finished cutting off and burning about ten loads of blighted pear brush. We sawed the limbs off, about two inches below any appearance of the disease, and gave the remaining limbs a coating with raw linseed oil, applied with a paint brush. A few years ago the pear trees blighted badly and we gave them the above treatment two or three times and saved our trees. Ten days ago I was sawing off the blighted limbs, and the limb that supported the ladder snapped off and I fell heavily to the ground, breaking my left arm below the shoulder, with a very severe shaking up.—*J. K. McMICHAEL, Waterford, Aug. 9, 1889.*

Fruit Crops in East Simcoe.

SIR,—I have about 200 seedling apple trees and 100 grafted trees, and I can count only four apples on the whole lot. About fifty of the trees have been planted from six to ten years. The frost has done its share for me this year, and left me no fruit to speak about. The Russian Mulberry has not been able to make

a bud since, but the Russian Apricots stood it all right. The Princess Louise apple is doing well so far. I have taken a great fancy to Simon's Plum, would like to try it very much. I am very well pleased with the CANADIAN HORTICULTURIST, and herewith send one dollar for my renewal.—*T. A. GRATIN, Coldwater, Ont., July 26, 1889.*

Ottawa Gardeners' Club.

SIR,—I promised you some details of the subjects taken up by the Gardeners' and Florists' Club we have established here. The one of "Whether it is desirable in planting trees to cut away the Branches and Leaders" is not finished after three nights on it. We have now appointed three men to examine into the systems of tree planting and report at our next meeting; so far the pole system receives the greatest support. I will give you a summary of the whole when finished. It has been most interesting, and brought out some unthought-of features. "Which variety of Tomato is the best for general market purposes" was

discussed. Opinions varied; Livingstone's Perfection was preferred by one, Bailey's Improved by another, and Canada Victor by still another.
—N. ROBERTSON, *Ottawa, July 19, 1889.*

Caution about Paris Green.

SIR,—While admitting the great help of the CANADIAN HORTICULTURIST to fruit growers, I think it would be a power for more good if your subscribers would only tell of their failures as well as their successes. Now Paris green for the destruction of insects has proven a failure with me, inasmuch as it kills the leaves and fruit also. Of course it was too strong, but I only used a little over half the amount recommended—a little over half a teaspoonful to a pail of water. Where it touched a leaf a hole was burned through, and where it came in contact with a stem the leaf or fruit gradually died. My firm belief is that Paris green, being indissoluble in water, will burn anything it comes in contact with, whether much or little water accompanies the particles. Three years ago I sprayed my plum trees with tobacco water and had an excellent crop. Last year I did not use anything and I had no crop, while this year Paris green has been of no use. Possibly it was not ground fine enough. The difficulty of getting tobacco for the purpose may be a difficulty to many, but the plant can be grown successfully in Ontario, and when once dried will keep for an indefinite period. It is perfectly harmless and will kill most all kinds of insects, besides being a benefit to plants.—WM. LINDSAY, *London, Ont.*

NOTE BY EDITOR.—Half a teaspoonful is plenty of Paris green to an ordinary pint of water for apple foliage, and is possibly too strong for the plum. Another point is in applying the spray, as by continuing too long in a place, an over dose would be given.

Ben Davis Spotting—Low Prices— American Fruit.

SIR,—I must take back what I said about the Ben Davis being free from spot. They became spotted a little later in the season than some other varieties. This has been a season to promote fungus growth on anything in our section. We have potato blight, onion blight, cauliflower blight, oats rusting, beans and apples spotted, and a severe hail storm besides. One gardener told me it would cost him \$100 for hot-bed glass to repair damages caused by the hail. If we only had remunerative prices for what we do sell, it would help, but after being at great expense forcing early vegetables we found American truck almost glutting our market. Last week we were getting good prices for our tomatoes, but five car loads came in from the States in a couple of days' time and knocked the bottom out of the tomato market. We used to get fancy prices for our Harvest

apples, but American apples are selling for \$2.50 per barrel and less. The market gardeners are discouraged, especially these with high rents. One of our most successful gardeners told me at the very least he would be \$1,500 out of pocket with poor crops and poor market on account of American competition; they get the cream and we get the skim milk, and pretty well watered at that.—R. BROMIE, *St. Henry of Montreal, Aug. 15, 1889.*

Fruit in Huron County.

EFFECTS OF FLOOD, FROST AND BLIGHT.

SIR,—We had a regular little flood here on the 1st July, and again on the 3rd of August, that did us a good deal of harm. We had just got our corn hoed and replanted after losing so much from the previous wet weather, when this storm washed a lot of it out and away. We had a hard job of it in hoeing as the ground was so hard and packed that we could scarcely pick it up, and our potatoes were, a lot of them, drowned out so that our crops will be very light.

Since I last wrote you on the 29th of May, regarding the frost, we had a great deal of cold wet weather that destroyed a great deal of our crops, such as corn, potatoes, peas, beans, etc.—the seed rotted in the ground—at that time I did not know to what extent the damage was caused by the frost; the apples were nearly all destroyed; my favorite apple, the Ribston Pippins, was beautifully clothed in bloom, but now perfectly naked of fruit. The only apples that escaped all are the Northern Spy, the large Alexander and the Snow. On those trees there appears to be nearly half a crop. I expect to get one barrel to where I got forty last year. Apples are wormy. All the best cherries were killed; the common ones such as the Kentish not much hurt. Plums are scarce, and pears very much damaged. I find the Flemish Beauty and Manning's Elizabeth stood it the best. Duchess are all gone, and what there is of both pears and apples are poor specimens. Our strawberries were not more than quarter of a crop; grapes, of course, in the open ground all gone; currants and gooseberries a very good crop, those on top of bushes were frozen, but they were mostly good; raspberries were not half a crop, and the flavor very poor. The Cuthbert, generally so delicious, was not fit to eat, scarcely, and the canes seemed to dry up. The Shaffer seemed to be very fair, but the best of all was the Golden Queen. It is a noble berry. I sowed a large quantity of choice garden peas but the continual rain rotted nearly all of them, as well as my beans, and now lately the pear blight has been very bad. I kept cutting off all small branches, but I hated to disfigure and mutilate the trees so I put on linseed oil which seemed to stop the blight from going

down any further, and I pulled off all the blighted leaves, but I see it is gone up and the leaves are turned black above. I hardly think the blighted branches will survive, as the bark seemed to be blistered and turned black and withered.

The Flemish Beauty seems to be most affected; there is a little on the Bartlett and Manning's Elizabeth.

The bark on the stock of my standard pear tree for some years seemed to have died and rotted on the south-west side. What could have been the cause of it?

Our grain crops are mostly good. The grain aphid was rather bad in the fall wheat, and the midge in the bald varieties of spring wheat. On low land the peas are not very good.

My son, S. E. Hick, of Paris, was at Grimsby Park last week, and in writing to me he described a berry that is growing wild on the side of the mountain, and asked me if I knew what it was. He says it is something like a red raspberry, the blossom something like the Sweet Briar, and leaves similar to a grape. What is the plant?

I see the English sparrow is getting more numerous. They are pretty thick in the wheat fields.—WALTER HICK, *Goderich, Aug. 17, 1889.*

NOTE BY EDITOR.—The plant described so clearly by your son is the Purple-Flowering raspberry (*Rubus odoratus*), and is very common in the Niagara district.]

Representatives from Michigan.

STR.—The annual meeting of our society is fixed by our constitution for the week preceding your winter meeting at Windsor; (1st Wednesday in December), and I reckon confidently on the appointment at that time, of a strong delegation to represent our society at your gathering.—T. T. LYON, *President, South Haven, Mich., Aug. 19, 1889.*

Fruit in New Brunswick.

STR.—I have had fine crops from Fay's Prolific Currant. Moore's Early Grape does not ripen with me. The apple crop in New

Brunswick is extremely light. A great many trees have died or are nearly gone, and this summer's drought will also diminish the number of barrels of fruit. The late spring frost destroyed the huckleberry blossoms, and raspberry bushes died for want of rain, but gooseberries were a fair crop. Plums very scarce.—N. BURRER, *Sheffield Academy, N. B., Aug. 14, 1889.*

The Juneberry.

STR.—In the August number of your magazine, I notice mention made of the Juneberry. This fruit attracted my attention in 1873, and by good fortune I happened to secure a few plants from a friend and neighbor in Kansas, who had brought his old plants from Illinois. The plants from Illinois were originally taken from the woods in the mountains of Pennsylvania. This is the correct history of the variety which I named and introduced as "Success" about ten years ago. Mr. J. T. Lovett, of Little Silver, New Jersey, and several others have been buying plants from me for several years past. This year I have sold to Mr. Lovett my entire stock, (except a few plants kept for the fruit, on my farm near Geneva, Kansas. This variety is dwarf in its habits of growth, but the berries are very large and delicious. They are in my opinion, the best I have ever seen. Other varieties procured from other sources have all proven of less value every way. You are quite mistaken in saying that the fruit can be propagated by cuttings; at least they have invariably failed with me. There is no doubt that plants could be propagated by grafting, but the only practical way which I have found, is to take up the suckers from around the old bearing plants. All attempts to cultivate the species of Amelanchier, which is commonly found in our forest as a small tree have not resulted profitably, but the dwarf kinds are generally prized very highly.—H. E. VAN DEMAN, *Pomologist, Division of Pomology, Washington, D.C., Aug. 17, 1889.*

NOTE BY EDITOR.—In England the method of propagating the Juneberry and other trees by cuttings is frequently employed with success, though of course cuttings of any kind will succeed much more easily in that moist climate than with us.

OUR FRUIT MARKETS.

The Prospect for Apple Growers.

If the quantity of apples in our orchards in Ontario is small and the quality poor, there is, at least, some

satisfaction in the prospect of good prices; and after the sad experience of last year we shall consider it in no way unfair to take from consumers as

much as \$2.50 per bbl. for winter fruit, f.o.b. Indeed only last week, we had summer apples sold in Montreal at that figure, an unusual thing nowadays and which indicates a hungry market.

The fact is, apples are a very short crop. NEW YORK STATE is one of the most important apple-growing States in the Union, and the prospect is that it will not give 75 per cent. of an average yield. ONTARIO probably has not 50 per cent. of an average, even when we include in our calculation the fact that in the Erie sections, between Niagara and Windsor, there is a fair hang of fruit in a good many orchards. MICHIGAN promises a yield which will run below the average, and Ohio a very light crop. Aside, therefore, from the impulse of a foreign demand the prospect is that our apples will all be required for our home supply, and that at constantly increasing prices, unless some other fruits fill the gap.

From our foreign reports we gather that there will be a lively foreign demand for apples also, as the crop in ENGLAND and on the CONTINENT is much below the average. We hesitate to speak encouragingly to our readers concerning the apple market, after the misfortunes of last year; yet the conditions are different, for while what we said about the English supply was true, the unprecedented quantities sent over from America exceeded the requirements about one-half.

It will not, however, be necessary for us to ship to England to get good prices this year, as we shall be able to command them at our own doors, without risk.

Philadelphia.

STR.—Apples; choice stock scarce and wanted, \$2.75 to \$3.00 bbl. for Blush; \$2.25 and \$2.50 for Alex.; 20 oz., Grav. etc. Peaches, light supply and firm, \$1.50 to \$2.00 per basket for choice, down to 50cts. and 75cts. for seconds and common stock. Pears, choice large bright stock wanted, \$6.00 to \$7.00 bbl., but inferior and dull \$3.00 to \$5.00 bbl., as to quality. Plums and grapes increasing in demand with improving quality. Plums, 50cts. to \$1.00 per 10 lb. baskets. Concord grapes 50cts. to 60cts.; Delaware, 70cts. to 80cts.;

Ives, 25cts. to 35cts. per 10 lb. basket.—PANCOAST & GRIFFITHS, Wholesale Fruit Merchant, Aug. 15, 1889.

STR.—Southern fruit being done and our local crop being short and poor in quality, gives us at present a good fruit market. We think we can please you on car lots of apples and pears; "Maiden Blush" are a favorite apple here, and command \$2.50 to 3.50 bbl. as to quality, choice stock scarce and wanted, at outside prices. Bartlett pears \$4.00 to \$6.00 bbl., as to quality and condition, very little choice stock here.—PANCOAST & GRIFFITHS.

Montreal.

STR.—The market this week is quiet on all lines. Apples; several cars good Southern apples have sold from \$2.00 to \$2.25, and one car Canadian Astrachans at \$2.00, while some extra lots of Astrachans and Duchess brought \$3.00 per barrel. For good summer fall apples, the outlook is very good, and we can use a great many. Pears, good Hudson River Bartletts have sold fast from \$2.75 to \$3.00 per keg, and \$6.00 to \$8.00 per barrel. But smoky are a gut in the market and almost unsaleable. Canadian basket pears have sold from 50cts. to \$1.00 per basket as to quality. Peaches, in fair demand, good basket stock, \$1.25 to \$2.00 per basket; common, \$1.00 to \$1.25. Grapes, not many in yet. Selling Soci. to \$1.00 per basket. Plums, scarce and wanted.—VIBOND, MCBRIDE & Co., Aug. 14, 1889.

London, England.

IN reviewing the business of the past season we regret we cannot refer to it with satisfaction. The unprecedented quantities of apples that were shipped from the United States and Canada to this country had a disastrous effect upon prices, which ruled exceedingly low during the greater part of the season. We may say that last season's supplies exceeded requirements by about half. The prospects for the coming season are of an encouraging character. From accounts received the apple crop in this country promises to be very small, and similar reports have come to hand of the French and Continental crops generally. We think there will be a good opening for American and Canadian apples during the coming season; fall fruit particularly, we think, if at all good, will meet with a good demand; but shipments of this class are only to be recommended when condition is likely to stand the voyage.—VAN OS & Co.

Covent Garden, London, England.

IN view of the early resumption of apple shipments, I have again the pleasure of submitting for your information particulars of the apple crop prospects this season in Great

Britain and the Continent. Your perusal of the various independent reports from the most reliable sources at my command, added to a wide personal survey, will, I trust, aid you in forming some idea as to the conditions under which shipments of apples from the United States, Canada, and Nova Scotia will arrive here.

United Kingdom.—The period of prolonged drought during the greater portion of the early Spring and early Summer, combined with a general attack of caterpillars, have, in the Southern Counties of England, nearly destroyed the apple crop, which has suffered more than any other fruit in the orchards; in the Midlands result are not quite so discouraging, the yield, however, is much under the average; in the Northern Counties, though showing fairer results, the cultivation of the apple is merely nominal, and can have no appreciable effect on the imported fruit.

Holland.—Like the Southern Counties of England the fruit has suffered largely from the drought, and the yield in the most favored parts is reported about half a crop compared with 1888.

France.—The Northern and Western Districts report about half a crop, mostly common sorts. In the South and South-West the yield will be very small; the quantity of fallings is reported very heavy nearly all over the country.

Belgium.—The reports are more encouraging, and late varieties showing an average yield.

Germany.—The North estimates a fair aver-

age crop. From the South the report is about half a crop.

Spain and Portugal.—Crops reported light, prices are therefore high, but arrivals commence early in July and in September; arrivals after that have no influence in the English markets.

The conclusion which may be fairly anticipated is that our wants will be quite equal to that of last year, which, with shortened supplies and better fruit—as we are led to expect from your side, this season—must tend to better net results for shippers.—J. B. THOMAS, Aug. 1889.

Dried and Evaporated Apples.

THE prospects of a short crop of apples for 1889, has already had the effect of stiffening prices for the supply of dried apples left over from last year, sales having been recently made at 4c. to 5c. per lb., although at one time they sold as low as 3c. Evaporated apples have likewise been held with much greater confidence, prices having advanced from 5c. per lb. to 6c. @ 7c. There can be no question that the present apple crop will be very much less than that of 1888, and considerably short of an average yield, and consequently new supplies of dried and evaporated will, it is expected, be very light, for the reason that prices even at the late advance will not induce production, as growers are expecting to obtain prices for the green fruit which will pay them better than preparing the dried and evaporated products.—*Montreal Trade Bulletin.*

THE GLASGOW MARKET.—While this number was going through the press the following report of sales of apples in Glasgow by Messrs. James Lindsay & Son was received, viz.: Cranberry Pippins, 22l to 23l; Nonesuch, 15l to 16l, Kings, 23l to 24l. Reports from all over Great Britain, as well as from the continent of Europe, agree that the crop will be small, and under the circumstances American apples, in good condition, should do well.

OUR BOOK TABLE.

THE DOMINION ILLUSTRATED for August 3rd is up to the usual high mark. The Wimbledon Team comes in for due attention, and the fine portraits of the members will be appreciated. St. John, N.B., and British Columbia have a large share in the remaining illustrations. The grasshopper hunt in Algiers will recall the shudders of some years ago to Manitoban farmers. Altogether, a good number.

THE ANNUAL REPORT OF THE BUREAU OF INDUSTRIES FOR THE YEAR 1888. PARTS I, II, and III. A. Blue, Sec., Toronto, Ont This report is an exceedingly valuable one to the farmers of Ontario, and shows a great amount of careful work in preparing approved, correct estimates of the various farm crops, values of farm property, farm wages etc., etc., but it is very incomplete regarding the progress of Horticultural industry in our Province. Out of 177 pages of matter, only seven are devoted to the Orchard and Garden, and while careful

estimates are made of the various farm crops such as wheat, rye, oats, beans, etc., giving in detail the acres, the bushels, the bushels per acre, etc., for each county; and in addition the totals for the Province. Now this is the very report we which need concerning the fruit industry. We have at present no means of knowing, for example, how many barrels of apples are produced in a given year in any county of our Province, nor the increase in the yield during the last decade. The report should give us full statistical tables showing the barrels of apples, the pounds of grapes, the baskets of peaches, etc., together with the acreage devoted to each, in each county. We have been frequently asked for the value of the fruit industry in our section, but in the absence of any reliable statistics it was impossible to give any definite answer. We hope the Government will give favorable consideration to our interests in this matter, and that a larger space will be devoted to Horticultural Statistics.

* Original Poetry. *

"FORGET, ME NOT."

BONNY wee flower wi' gouden ee,
Blinkin' sae blithe and daintylic,
You surely ken, ye're dear to me

Dearer to me than a' the rest ;
Sae I'll kiss ye, and place ye on my breast
And tell ye why, I loe ye best.

Altho' you are but a tiny flower
O'er my auld heart your mystic power
Cheers me in my twilight hour.

My wayward memory travels back
Three score years on life's rough track
To youth and happiness and *Jack*.

A glow of girlhood, I ween,
Steals o'er me, as in love's young dream
When he crown'd me with a diadem

Of these sweet flowers of sunny hue,
Forget-me-nots of azure blue ;
Emblems of his love so true.

Ah ! then my heart beat double measure
When roaming with my God-given treasure,
Hand and soul were linked together.

When unrelenting fate laid low
My love, I kissed his lips of snow,
Sair, sair, I wanted too to go.

But I have lived life's summer through,
And winter soon will claim his due,
My sacred flowers, a short adieu ;

We'll meet again : for in my dream
I saw you in God's "Pastures Green,"
Blooming beside the Living Stream.