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THE
Canadian Horticulturist.

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[No. 7.

ROSE LA FRANCE.

The new strain of roses known as the Hybrid Teas is attracting a great deal of attention among our rose fanciers. We give a coloured illustration of one of this new strain, known as La France, in order that our readers may have a better opportunity of forming a correct estimate of their appearance. We are indebted to Mr. Henry Bennett, Stapleford, Eng., for this new strain, which bids fair to become one of the most popular of all our many different strains of roses. It was as recently as 1879 that he sent out his first group of seedlings which attracted much attention from their beauty of form, their rich perfume, and immense blooming capacities. This new group is produced by crossing the Tea Roses with what are known as the Hybrid Perpetuals, themselves crosses made with varieties of Provence, Damask and French roses upon Bengals, Bourbons, &c. This group of Hybrid Teas is as yet in its infancy, but enough has been done to shew that it is one giving great promise of permanent value. Of La France, Mr. H. B. Ellwanger says, in his valuable treatise entitled "The Rose," that it is the sweetest of all roses, and equal to any in richness of

perfume and profusion of bloom, and only needs to be known to be appreciated. The coloured plate gives our readers a very accurate representation of its colour, size and form, and will enable them to realize some idea of its exquisite beauty. This group will doubtless be more hardy than the Teas themselves, but is not likely to have the strength of constitution and ability to endure severe cold which most of the Hybrid Perpetuals possesses.

Our Canadian growers may plant them in the open border for the summer season, and when the frost begins to return take them up and place them under glass or keep them in a nearly dormant state in a cool cellar free or nearly so from frost. This strain of roses will also need to be well pruned in and bountifully fed to secure the finest specimens of bloom and best luxuriance of plant.

CANNING ORANGES.—By a process similar to that used for preserving other fruits, oranges have recently been successfully canned and shipped. The fruit is peeled and broken into its natural sections before canning, and when taken out is just ready for use. This is likely to become an important industry in the orange-growing districts of California and Florida.

NEW ORLEANS.

It seems but fitting in connection with the meeting of the Mississippi Valley Fruit Growers' Association, to give our readers some idea of the appearance of this city, and of its horticultural productions as they appear in the last days of the month of February. The thermometer during our stay ran up as high as 78° in the shade, and continued so warm during the night as to

make the room uncomfortable unless the windows were fully open and the fresh air allowed free entrance. Yet we found that sudden changes of temperature were by no means exceptional here, for within twenty-four hours the thermometer fell fully forty degrees, and we were awakened in the night by such a change in the temperature as required the closing of the windows and looking up of heavy blankets in order to



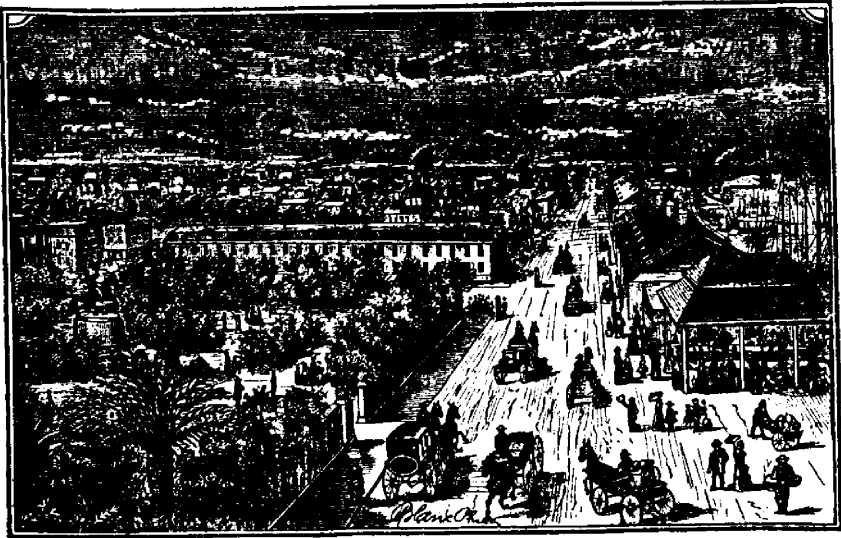
CARROLLTON GARDENS.

our physical comfort. Yesterday light clothes were almost a burden, to-day our woollen wraps and overcoats scarce make us comfortable when exposed to the chilling wind which prevails. Notwithstanding this, vegetation seems to come forward, and the fig trees are putting forth their leaves. The broad-leaved evergreen trees, which are very abundant here, give a summer-like appearance to the public squares and gardens which would look nearly as bare as our own without them. The Japanese plum trees, as they are called (the Mespilus), are now laden with fruit,

some of which is already ripe, and the trees of the bitter orange, which are planted for ornament in the public squares and on many of the streets, are loaded with golden fruit which contrasts beautifully with the dark green of the foliage. The accompanying engraving is a picture of the Carrollton gardens in New Orleans, in which will be seen specimens of palm, banana and yucca, from which our readers will at once perceive that the climate in its greatest severity must be mild indeed, compared with the frost which we experience. The avenue by which we

approached these gardens seems to be the favorite place of residence for the substantial business men of the city, which had more or less of lawn and garden attached; and it was to us a new sight indeed, to see Oleanders fully fifteen feet high, and Camellia Japonicas laden with flowers, Crape Myrtle, Pittisporum, Spanish Bayonet, and such like plants as can be grown here only in conservatories, flowering in the open

ground. Roses too, of the tender, ever-blooming kinds, which we shelter with so much care during the winter months, were here climbing over fences, trellis and walls in great profusion and laden with flowers. Marshal Neil seemed to be at home here, displaying its magnificent half open buds in size and abundance quite astonishing to us who have to train it under glass. There was one peculiarity that struck us as quite



JACKSON SQUARE.

novel in the structure of their cisterns for holding rain water. These were all above ground, from which we infer it is impossible for the people to have cellars beneath their houses. Indeed, at this time the city was below the level of the water in the river, so that if the banks of the Mississippi were to give way, at least the first story of the dwellings would be wholly submerged. We found too, on visiting the cemeteries, that instead of burying their dead beneath the surface of the ground, they built brick and stone vaults in long avenues, wherein the bodies of their

dead were deposited. One of the public squares of the city, near the famous French market, is known as Jackson square, and we were surprised to find the gardener trimming hedges of the evergreen *Euonymus*, which did not shew the least injury from the winter. Camellias were laden with bloom, the fragrant Olive mingled its odors with the opening flowers of the orange; the bananas were putting forth their new leaves, and the *yucca aloefolia* was in full bloom. Verbenas looked as though they had remained in the borders all winter, and the *Alternanthera*

had only been partly killed back by the cold weather. The accompanying cut of Jackson square, which gives also a birdseye view of the French market and part of the river, will illustrate the appearance of the city at this season of the year. In visiting the market we found little fruit besides oranges, lemons, bananas and Japanese plums; and very surprising it was to us to find that the oranges were either from Cuba or the Mediterranean. The vegetables were cabbage, lettuce, onions and garlic. The peas and beans could hardly be said to have arrived, a peck here and there being all we could find, with a few half grown carrots and beets. The meat market would bear but poor comparison with any meat stall in the smallest town in Canada. The beef seems to be coarse grained, thin and lean, with a dark bluish cast, anything but inviting to the palate of one accustomed to the use of Canadian beef. The fish market was more bountifully supplied with a considerable variety of fish, many of them new to us. On inquiring their names we found that they give the name of trout and pike and bass to fish very unlike those which are called by these names with us, while others, such as redsnappers, redfish and the like, were wholly new, both in name and appearance. Judging from our experience of the fish when brought upon the table, we would say that in richness of flavor, fineness of grain and firmness of flesh, they are not by any means equal to the fish of our Canadian waters; and even the oysters, of which so much has been said, lack the flavor of the oysters of Long Island Sound. This city seems to be growing in commercial importance. Ocean steamers lie at its wharves, taking in cargoes of cotton, rice and sugar, and discharging cargoes brought from foreign ports, and a general activity seems to pervade the whole city, which denotes business thrift. We had

not time to visit the manufactories of ice and sugar, for which the place is famous. On the whole the city presents many attractions to the Northerner for a sojourn during a part of our cold winter months; but for variety of horticultural productions in fruits and flowers, which contribute so much to home enjoyment, and for healthfulness of climate, this part of the world will hardly allure the Canadian from his northern home for more than a small period of the year.

MEETING OF THE MISSISSIPPI VALLEY HORTICULTURAL SOCIETY.

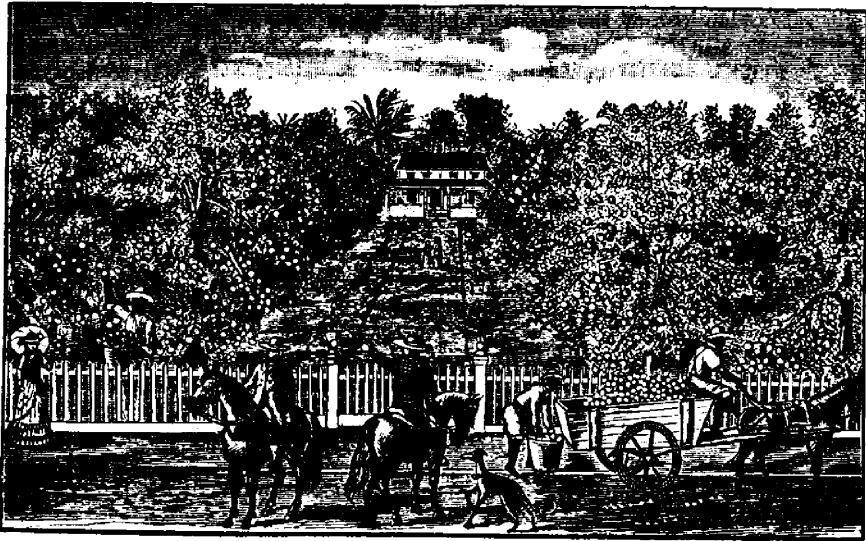
We called the attention of the members of our Association, at their winter meeting, to the proposed meeting of the Mississippi Valley Horticultural Society, to be held in the city of New Orleans, on 21st to 24th February last. The writer availed himself of the excursion rates offered of attending the meeting of this society, and proceeded, in company with the Vice-President of the Association, to attend the meeting, and gather up what information gave promise of being valuable in our more northern, and therefore more severe climate. It is to be remembered that the Mississippi Valley, extending to the city of New Orleans, with its June like weather in February, also includes the arctic climate of St. Paul's. We found on reaching the place of meeting that we were not the only persons coming from ice bound regions, but that there were representatives from yet higher latitudes than ours. The society met in Grunewald Hall, on Wednesday, the 21st February, where the members were gracefully welcomed by Mr. E. M. Hudson, Vice-President of the Fruit Growers' Association of the Gulf States; to which the President, Mr. Parker Earle, responded on behalf of the society. He stated that the horti-

cultural productions of the Mississippi Valley amounted in the aggregate to one hundred million dollars, and that this was in itself sufficient apology for such a gathering as was present there that evening. He stated that one of the principal needs of the fruit growers of that valley was some provision for testing in the field embraced within its boundaries the great multitude of new varieties of fruits that were continually being brought out, and new methods of cultivation. He was sure the fruit planters of the west had lost money, sometimes by planting unsuitable varieties, sometimes by unsuitable culture of varieties that would have succeeded had the treatment been adapted to their circumstances. The different climates of the Mississippi Valley called for diversity of treatment, and the planting of different varieties. What may be suitable in one place may be very unsuitable in another part of this great valley. The work of experimental stations undertaken by some of the States is certainly invaluable, but quite insufficient to produce the information needed by the planter. New questions are continually arising to perplex the fruit grower, new difficulties seem to be continually springing up, and new claimants for public favour have need to be tested continually. Hence the necessity for such a gathering as this, where practical fruit growers, giving their individual attention to the subject in hand, impart to each other the information they have gained and thus make the experience of each the common property of all. Alluding to Canada, he said that reciprocity with Canada in this branch of business was earnestly to be desired; that the duties imposed by Canada upon such products going into the Dominion were greatly to the disadvantage of the fruit growers of the Mississippi Valley. He closed his in-

teresting address by appealing to the members to do all in their power to make rural life attractive, and at the same time pecuniarily profitable, and to disabuse the young men of the notion that occupation of any kind in the city is to be preferred to agriculture or fruit growing. He also warned them not to plant one more shrub, tree or vine than they can intelligently care for, saying that already there had been too much "planting in ignorance and reaping in disgust."

On the following morning, the Gulf States Association invited the members to a steamboat excursion upon the Mississippi to the truck farm of Mr. A. W. Roundtree. This farm is upon the west bank of the river in Jefferson county, about thirteen miles from New Orleans, consisting of 175 acres, of which 75 are occupied by orange trees, to the number of 7,000 trees. It is probably the largest truck farm in America, making a specialty of cabbage, cucumber and tomato, during the winter months. The greatest part of the crop is sent to the Chicago market. He is growing this winter some 170,000 heads of cabbage upon a field of about 40 acres, and he yearly grows from eight to nine hundred barrels of cucumbers, and from six to eight hundred boxes of tomatoes. Besides this a considerable amount of strawberries, peaches and grapes are grown for family use, and his apiary produces annually from eight to ten barrels of honey. His tomatoes sometimes sell in the Chicago market at the rate of nine dollars a bushel, coming as they do at the time of great scarcity, when the demand far exceeds the supply.

At the time of the visit of the society the orange trees were just coming into bloom, filling the air with delightful fragrance. The fruit had all been gathered, save that which remained upon a few trees of the bitter orange, not fit for food,



MR. ROUNDTREE'S PLANTATION.

and only grown as an ornamental tree. The fruit of the orange is ripe in November and December, when it is gathered and packed as fast as the demand may require, usually completing the harvest in about a month. The first six months of the year are devoted to market gardening. The cabbage, tomato and cucumber plants are started under glass, and as the weather will permit, and the growth of the plants may require, they are transplanted into the open ground. The business of gathering, packing and marketing is carried on systematically with about twenty-five colored hands. By the 1st of July the ground crops are gathered and shipped, and the whole place sowed with cow peas to be turned under ground as a fertilizer. Mr. Roundtree said that from the first of July till first September, "we all take a holiday, going up and down the country hunting up recreation according to our several tastes." By the first of September the business of turning under

the cow peas begins and the ground is got in readiness for the winter crops. The accompanying engraving which we have copied from a picture we found, renders some idea of the appearance of Mr. Roundtree's place in the month of December, when the work of orange gathering is going on. The novelty of such operations being conducted at such a time is not without its charm to us who at that season are battling with frost and snow, amid leafless trees, whose fruits have long since been gathered.

DRIED APPLES.—Last year over three million pounds of dried apples were exported from the United States, to the markets of China, India, Egypt, Southern Africa, Australia, and also to England and Scotland. Four-fifths of this amount was exported from the port of New York. The exporters gather them up from all portions of the country, the best, it is said, coming from North Carolina. The cores and parings are shipped to France, where they are used in changing the flavors of various brands of wine.

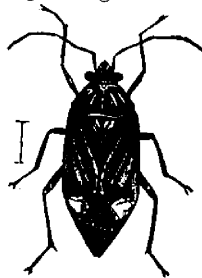
ANOTHER STRAWBERRY ENEMY.

It appears that the strawberry growers of Illinois have had their strawberry crop injured by a very destructive insect. There was every prospect of a most abundant crop, when all at once it was found that as the berries were approaching their full size they were eaten by some insect that had appeared in countless numbers and had ruined the crop. We learn from the *Farmer and Fruit Grower* that Mr. Earle, President of the Mississippi Valley Fruit Grower's Association, has been a great sufferer, and will not be able to pick half a crop. He reports that his five acres of Sharpless will be totally destroyed, every berry having been sucked dry and rendered useless. He expected to gather not less than 15,000 cases of fruit from his strawberries this season, but now it will not amount to more than 5,000. Mr. W. W. Plater reports that his fields are entirely ruined, and that he has abandoned his crop. Almost every strawberry plantation in that section has been attacked by this insect, whose capacity for destruction seems to be wonderful. In consequence of the wholesale destruction of the strawberries in that part of Illinois, the great strawberry exhibition which was intended to be held, has been abandoned, as no longer possible. Professor Forbes, the State Entomologist, on being informed of this state of things, visited the scene of destruction in order to investigate the habits of this insect. He reports the injury done by all other insects that prey upon the strawberry, is not at all equal to the damage that has been done by this new invader. He states that it is a well known insect that has been common for many years, but never before known to injure the strawberry. He calls it the Tarnished Plant Bug, known to entomologists as *Lygus lineolaris*, an insect belonging

to the order Heteroptera, family Capsidae, genus *Lygus*.

At its first appearance it is a small, green, flat-like bug, about the 16th of an inch long, increasing to about one-fourth of an inch and changing to dull, russet color, and finally becoming winged and able to fly when full grown. It is said that it prefers the Sharpless, and leaves the Crescent comparatively untouched. It is certainly strange that this insect should so suddenly turn its attention to feeding upon strawberries, and if once it gets a taste of this delicious fruit probably it will not soon relinquish its new found pasture fields. We may expect that if it abounds with us it will also be found preying upon the fruit of our strawberry plants, and it is well for us to be forewarned and forearmed. Our readers will find on referring to Wm. Saunders' work on insects injurious to fruits, page 147 (a book that ought to be in the possession of every fruit-grower), the following description and account of this insect as it affects our pear trees: "This insect is about one fifth of an inch long and varies in color from dull, dark brown to a greenish or dirty yellowish brown, the males being generally darker than the females. The head is yellowish, with three narrow, reddish stripes; the beak or sucker is about one-third the length of the body, and when not in use is folded upon the breast. The thorax has a yellow margin, and several yellowish lines running lengthwise; behind the thorax is a yellow V-like mark, sometimes more or less indistinct. The wings are dusky brown, and the legs dull yellow. We are indebted to Mr. Saunders for the accompanying cut, which shows the full-grown insect. It passes the winter in a perfect state, taking shelter among rubbish, or in other convenient hiding places, and early in May, as soon as vegetation starts, it be-

gins its depredations. Concealing itself within the young leaves of the expanding buds of the pear, it punctures them about



LYGUS LINEOLARIS.

their base and along their edges, extracting their juices with its beak. The puncture of the insect seems to have a poisonous effect, and the result is to disfigure and sometimes entirely destroy the young leaves, causing them to blacken and wither. These insects are also partial to the unopened buds, piercing them from the outside, and sucking them nearly dry, when they also become withered and blackened. Sometimes a whole bunch will be thus affected, being first stunted, then withering, and finally dying. Early in the morning these plant bugs are in a sluggish condition, and may be found buried in the expanding leaves, but as the day advances and the temperature rises they become active, and when approached dodge quickly about from place to place, drop to the ground, or else take wing and fly away. In common with most true bugs they have, when handled, a most disagreeable odor. In the course of two or three weeks they disappear or cease to be sufficiently injurious to attract attention. It is stated that they deposit their eggs on the leaves, and that later in the season the old and young bugs may be found together. The young bugs are green, but in other respects do not differ from their parents, except in lacking wings. While they seem particularly partial to the pear, they attack also the young leaves of the quince, apple, plum and cherry, as well as those of herbaceous plants. Remedies.—First of all, clean culture, so as to leave no shelter for

the bug in which to winter over. When they appear in spring, shake them from the trees very early in the morning while they are in a torpid state and destroy them."

It is to be hoped that some more speedy method of destroying these insects, and one adapted to counteracting their ravages in this their newly-found field of destruction may be speedily discovered.

CLETHRA ALNIFOLIA.

The engraving which we give of this shrub will give our readers a better idea of the appearance of its flowers and the form of its flower spike and leaves than it is in our power to give by any verbal description. We call attention to it again, because it is extremely hardy, capable of enduring our winters with impunity, and because its season of bloom is so late as to make it very desirable on account of the scarcity of shrubs in bloom at that time, and its period of bloom is so protracted as to make it a very ornamental object on the lawn for several weeks. But it is more especially our bee-keepers to whom we desire to commend this shrub. The honey it yields is of the finest quality, and is produced in great abundance, and that at a time when the flowers of spring and early summer are gone, when the bees have gathered their supplies from the basswood and white clover. This shrub affords them a bountiful supply during a period of the year when it is very difficult for them to obtain any. We believe it would be a very profitable investment for those who are interested in the production of honey to plant this shrub by the hundred or thousand in order to supplement the honey yielding plants that are to be found in this country. This shrub commences to bloom at an early age, can be trans-



CLETHRA ALNIFOLIA.

planted with great ease, flourishes in every soil, and seems to be quite free from the depredations of insect enemies. It certainly gives promise of being a most valuable acquisition to our list of honey-producing plants. We believe it can be procured from nurserymen at a reasonable rate and in large quantities.

ADOLPH STRAUCH.

Whoever has visited Spring Grove Cemetery—that beautiful triumph of skill in landscape gardening which is the pride of Cincinnati—will surely remember Adolph Strauch, whose genius conceived and whose skill perfected the beautiful pictures in trees and grassy slopes and lakelets which abound at Spring Grove. He was the presiding genius of this gem of rural beauty, and the conceptions of his mind here found embodiment in broad avenues, majestic trees, gleaming water stretches, and verdant lawns, so interwoven and blended that every turn brought to view some new picture of surpassing loveliness. To him America is indebted as the originator of the Landscape Lawn System for cemeteries, which he gradually developed, patiently overcoming the prejudices and customs which opposed his efforts, and at length demonstrating its great superiority, so that his rare taste and skill have been fully acknowledged by all, and his name stands, by common consent, by the side of the great masters of art in landscape creation.

It was the privilege of the writer not only to enjoy these creations of his masterly skill, but to grasp the hand and look in the face of the man whose brain had conceived this beautiful grove, and to find in him a spirit quite in harmony with the beauty with which he was surrounded. It was a pleasure to converse with him, and to

note how much he enjoyed the opportunity of contributing to the gratification of his visitors as they stood in mute contemplation of some charming prospect, or pointed out the effect of some skilful grouping. But he is gone, gone from the scenes he created, gone from the work in which he delighted. He sleeps in the most charming spot within the grove, the island, which the Directors had donated to him in recognition of his services. Spring Grove Cemetery is his monument.

THE CODLIN MOTH.

Some time ago a writer in the *Bruce Herald*, over the signature of *Pro Bono Publico*, said :

In 1878, when my apples and crabs were much injured, being desirous to make myself more fully acquainted with the habits of the Codlin Moth, I collected and opened several crabs which were injured by the larvæ of the moth. I took twelve of those and placed them in two crabs, then I burnt some earth in the stove till I knew all insect life was destroyed, then I damped it a little, and put about three inches of it into a glass jar. On the top of the earth in the jar I placed the crabs, in which I had put the larvæ, I then covered the jar with a piece of paper which I pierced with a pin. They soon left the crabs and went into the earth and were formed into chrysalis. They did not remain long in that state when they came out the full-grown moth. I then found they were very partial to water sweetened with honey. In 1879 I placed a gallon mustard jar in my orchard, in which I had some water sweetened with honey, in that I caught large numbers of them, and also many bee-moths. I found in that year my apples and crabs were not so much injured as they had previously been. In 1880 I placed jars so prepared again, and in two nights I caught about a hundred moths, so that very little of my fruit was injured, and all who saw my orchard were quite surprised to see what they called my fine fruit, and so free from the ravages of the moth. I expect next

year to completely exterminate the moths in my orchard.

Any vessel in which the honey and water is placed should be such as a gallon mustard jar, so that the moths could have easy access to the sweetened water, but could not easily get out, then the moths should be removed every two or three days, for if there are too many left in the water, others will light on them and be able to fly out. The moths only fly at night.

Those who have bees should be careful and remove the jars in the day, otherwise many bees will be lost.

I always in two or three days remove the moths with a piece of wire-cloth fastened to the end of a stick, and kill those which are alive.

I wish others would try this experiment and report to your paper.

It would be exceedingly interesting to hear again from this writer as to the results of his method of capturing these moths with sweetened water in 1881 and 1882, and to know whether he has completely exterminated them from his orchard as he expected.

Professor W. J. Beal, of the Michigan State Agricultural College, in a paper read by him before the Illinois State Horticultural Society, and published in the Transactions of 1882, says: "I have several times tried to catch them by placing in apple trees pans of sour milk, sweetened vinegar, bottles of sweetened water, and boards smeared over with molasses. I have always caught many insects, but never to my knowledge caught a codlin moth by these means. I have thrown slaked lime in trees at different times when fruit was on the trees, but it has failed to reduce the number of moths or of wormy apples. I have tried bands around the trees, bands made of straw, wood, cloth, pasteboard and soft paper. They all catch the larvæ of the moths, but still enough escape to keep up a good supply of insects. The most effectual band was one patented in Western New York. It consists of a

band of pasteboard two and a half inches wide and lined with cotton."

It seems from Prof. Beal's experiments that he did not succeed in capturing any of the codlin moths with sweetened water, sweetened vinegar or molasses; and it has been the general opinion of those who have studied the habits of the codlin moth, that it can not be caught with sweetened water. Wm. Saunders, in his work on insects injurious to fruits, says: "Wide-mouthed bottles, partly filled with sweetened water and hung in the trees, have been recommended as traps for the codlin moth, but there is no reliable evidence that any appreciable benefit has ever been derived from their use. There is no doubt that a large number of moths can be captured in this manner, but it is a rare thing to find a codlin moth among them. Neither is the plan of lighting fires in the orchard of much avail, since the codlin moth is rarely attracted by light."

Our Walkerton readers will confer a favor by calling the attention of the writer in the *Bruce Herald*, if he be known to them, to the subject of his experiments, and obtaining from him a further account of his experience.

THE VICTORIA CURRANT.—The Victoria currant is more prolific than the Red Dutch, and is therefore more profitable for market gardeners. But as the Victoria has more acidity, the Red Dutch is the better variety for farmers who intend to grow only for home use.

DIELYTRA SPECTABILIS is one of our prettiest spring blooming plants, also blooms nicely in the house in winter. A very light position should be secured for it, otherwise the branches will grow up wrong. Not too much heat is required for it: in fact, it will do better in rather cool places. It is pleasing to know of a plant that will do so well in the open ground, where one may be sure to enjoy its beautiful pink and curiously shaped flowers every spring.

CORRESPONDENCE.

CELERY.

There is no reason why the farmer should not raise celery in his garden, for since the introduction of the dwarf varieties, there is no more time or work required than is expended on the garden crop of onions. The "Sandringham" dwarf I esteem the best. If you are not in the habit of making a hot-bed, start your plants in the house in March in a small box of light red soil, such as you compost for house plants. It is well to have a barrel mixed in spring and kept in a shady place to decompose, ready for your house plants on removing them to winter quarters from the garden. Select place for your celery in garden, plant two rows of early potatoes in drills, rows four feet apart, after final hoeing run a tiller between the rows, sprinkle your fertilizer in the channel made by the tiller and hoe it in; it is better if a rain intervenes before you set out your plants; the planting is better done by two persons, one with a small dibble six inches long, acting also for a measure to distance plants six inches apart, making the holes and dropping in the plant. A person following with water fills the holes. After all are set out and the water soaked off, fill the hole with earth pressed slightly around the plant. At this time, last of July or first of August, the potato tops are large enough to afford shade, the plants need nothing more except to be kept free of weeds till your potatoes are dug, then hoe your celery and draw dirt towards it on each side. To blanch easily and rapidly go on your knees, astride the row; take a plant in one hand, shake it and squeeze it close to get out the earth from centre, holding in hand, with the other draw the earth up to the plant on that side, then take plant in other hand and draw earth on other side,

after which let go of the plant and draw earth from both sides, pressing it against the plant. After your row is gone over and blanched, finish up with a hoe; two blanchings is enough; a sprinkling of salt along the row has been found to advantage at time of blanching. To winter celery it should remain out as long as safe in fall, but should be dug when the soil is not wet. It should be dug with a long handle fork, a basket or barrowful at a time, and placed at once where you intend to winter it. I have tried sand, leaves, etc., for storing, but have found it to winter full better without either. Have bins made three feet wide with wide plank, with cellar floor for bottom. Take up celery with as much earth as possible and press the heads as closely as possible in the bin. After your plants are all in, place leaves at the end you intend to use from, banking up the celery on that side to exclude air after taking out for use. If you have been in the habit of buying you will find nothing you can raise in a garden would pay you better than your crop of celery. The space occupied is of little account, as you would plant your rows of potatoes only one foot closer than without. You can raise 300 heads, a fair home supply, easier than in former times one hundred of the Giant varieties could be raised in ditches.

W. M. P.

Clarenceville, Que., June 7th, 1883.

FOUNTAIN PUMP—REPLY TO MR. STRAUCHON.

MR. EDITOR.—In current month's number of *Horticulturist* there is an enquiry by Geo. Strauchon as to a good, cheap fountain pump for spraying fruit trees. I have used for the last two years the fountain pump manufactured by Josiah A. Whitman, Providence, Rhode Island, and find it an

exceedingly handy, portable and efficient article. It can be had, I think, duty and express charges paid, for about \$8. I have not yet tried it on the Codlin Moth, but think that with its help I have effectually checkmated the "little Turk." After three applications (one a week) of Paris Green water (one teaspoonful to a pail), my apricots are now as large as plums and not a mark upon them, and with close searching I have been able to find but two plums stung by the Curculio on the ten trees which constitute my plum orchard. In bye-gone seasons by this time plums and apricots were falling in perfect showers, notwithstanding daily jarring of the trees, and very few of either fruits eventually escaped. The exceptions then were indeed *rari nantes*. I might just add that I have found Mr. Whitman a straightforward and honorable man to deal with.

Yours, &c.,

C. R. MATTHEW.

St. Stephen's Parsonage,
Goderich Township, June 20, 1883.

FRUIT PROSPECTS.

(For the *Horticulturist*.)

Greenock, on the west coast of Scotland, is proverbial for the humidity of its climate. Of it, the story is told that sailors say it rains thirteen months in the year there. The little boy's answer to the question of a visitor who had frequently been there, and always found his umbrella in good place, Does it always rain here? was, "oo, no sir, it whiles snaws." Just such like has been our season here; St. Swithen left us weeping, and the clouds have wept ever since. Where we had a comparatively dry day, our expectations of coming dry weather generally vanished with the rising sun, and to-day, the middle of June, many farmers have only about half their spring work done, and badly done at that.

The prospects of the apple crop in our section are fair, if we are only spared from the Fungus, which is doubtful, as the disease has till now gone on increasing. The Fameuse and McIntosh Red were from this cause entirely worthless last year. I have tried the experiment of top grafting all my young trees of these varieties with scions of Canada Red, Wealthy, Mann apple, Canada Baldwin, American Golden Russet, Swayze Pomme Grise, and Nonpareil. All but the last named, (scions of which were sent me from the lower province and of which I know nothing,) succeed here, and if here you may class them as entirely hardy. Speaking of apples, there is a tree in my orchard planted I believe about the beginning of this century, the large proportions of which have been remarked by many. Six inches from the ground it measures round eight feet. It is a native, a good bearer, quality of fruit excellent for cooking, fair to eat, keeps well through the winter, has never spotted. I also top grafted from it.

I must thank friend Beadle, and in doing so, feel that I am but expressing what our Board of Directors feel, heartily thankful for the bound volumes of the *Horticulturist*, so well got up, and with so much modesty presented, that we think words would be wasted more than to say it's just like our editor. We must compliment him too for the goodly appearance and judicious selections of the *Horticulturist*. Always a welcome visitor, it is worthy of a first place on our shelves.

Friend Gott's remarks on the loss of our respected brother, Mr. Arnold, were well chosen. It takes but few words to tell a big tale of sorrow, and he found them.

Mr. Roy gives me credit for more enterprise in strawberry culture than I deserve. It's only a half acre patch

I'm going into, but I am testing varieties enough, I think, to make a future report interesting.

My main crop will be Early Canada, Wilson and New Dominion, but am testing Mount Vernon, Manchester, Bidwell, Forest Rose, Hudson Chief, Sharpless, Glendale. For these I have to thank Mr. A. M. Smith, of your place, and Mr. Henry Smith, of Morrisburg. In raspberries I am trying Niagara, Cuthbert and Hansell. The Philadelphia last year fruited well, when all my others were winter killed. I have trespassed too long on your sheet and your reader's patience.

JOHN CROIL.

Aultsville, June, 1883.

FRUIT REPORT FROM THE OTTAWA VALLEY.

The spring of 1883 has been the most backward that has occurred for many years in eastern Ontario. At this time of writing (6th June) the trees are hardly yet in full leaf, especially the black and gray walnuts. The wild red plums have just dropped their blossoms, but the blue plums, apples, crabs, strawberries and cherries are now in full bloom; the currants and gooseberries have set their fruit. Winter weather held on until late in the season and was succeeded by cold wet weather, in consequence of which vegetation was unusually late. Notwithstanding these drawbacks the show for fruit is unusually good, but with so late a start it may be a question if the grapes, which are only showing the fruit buds, will overtake their usual time of ripening. Present indications shew that it will take an exceptionally hot season, well extended into the autumn, to perfect the fruit before the frost sets in. Several pear trees which were sent out in past years by the Fruit Growers' Association, and had lingered on without producing any fruit, have at last succumbed

to the past severe winter. This proves conclusively to me that this is not a pear section. Almost the only variety that has fruited here is the Flemish beauty, but even this tree gave no return on my grounds, and in other localities has proved short lived, only fruiting for one or two years. Many varieties of cherries have been tried, but no success attended them. A few specimens have been secured from the Kentish, which so far has proved hardy, but does not bear so abundantly as in the west. The robbers are so fond of this fruit that it is difficult to secure even those that come to maturity. Experiments have been made with the peach, but have only gone to shew that it cannot be grown in the open ground. I have tried it on the French Cordon system, covering the arms with leaves and soil, but without success. I have also tried the plan of cutting the roots of one side of the tree, throwing it over and burying it, but with no better success. All attempts to raise fruit have failed, though the life of the tree has in many instances been prolonged for several years. This, as in the case of the pears and the finer kinds of plums and cherries, shews that the fruit spurs, or that part of the tree which is productive of its seed, is the most tender, and the more readily attacked by cold, or more susceptible to the changes of temperature.

I find that raspberries do best with some slight protection. Probably the best thing to do is to weight the canes down with poles, light scantlings or sods, covering them with corn stalks, sorghum or some coarse material, probably cedar brush would be the best where it is easily obtained. Amongst the varieties experimented with here, I find the Cuthbert probably the most hardy, it shews every indication of being a valuable sort for cold localities. The berry is good in quality, firm and of a bright attractive color. All the

gooseberries are hardy, Smith's Improved appears to be taking the lead; it has the finest berry of the American varieties, bears well, and is comparatively free from mildew. A good desert gooseberry, free from disease, in all parts of Canada would be a decided acquisition. And this will no doubt be produced by our hybridists within the next few years, if it has not already been obtained.

What apple trees there are, shew abundant promise of fruit. The bloom was magnificent, and so far as can be judged they have set well. On the whole the fruit prospects in this district are the brightest that have opened for many years.

P. E. BUCKE,
Director Ottawa Division.

TO THE GROWERS OF FRUIT IN THE BLEAK NORTH.

We are told by the ancients that "the gods help those who help themselves." Would it not, therefore, be to our mutual advantage to unite and furnish to one another such information on the subject of fruit growing as we may have gleaned from time to time in our varied localities. I doubt not that you all have experienced the same difficulties that I have in securing fruits sufficiently hardy to withstand the intense cold of our northern clime. It seems to me, therefore, eminently desirable that we should every spring give a revised list in the *Horticulturist* of those trees, shrubs, &c., that have most effectually withstood the rigour of our northern blasts. In this way we shall soon be enabled to furnish a complete and reliable "fruit list" for the colder sections of our Dominion. Our southern neighbours are anxious and willing to give us the benefit of their varied experience, but, unfortunately, in many respects, it is not of such a nature as to be of very material service

to us. I shall therefore give you the benefit—if it can be called such—of my own experience, trusting that it may be the means of inducing others to "go and do likewise."

It is perhaps best to state briefly in the beginning, that I live in the county of Renfrew, in the Ottawa valley, in lat. 45° 30'; that I am entirely removed from the ameliorating influence of any body of water, and being besides situated at a high level have to withstand the effects of the most rigorous winters—the mercury some seasons ranging as low as 40° below zero.

Notwithstanding these natural disadvantages, I have succeeded in raising a considerable quantity of various kinds of fruit, and though they are not of the very best quality, yet sufficiently valuable to make it desirable to grow them.

I shall confine myself in this letter to the varieties of apples that I have succeeded in raising, and should it be deemed advisable will give a list of the other classes of fruits that I have found sufficiently hardy to warrant me in recommending them to others. I shall endeavour to enumerate them as nearly as possible in the order of their hardiness: Wealthy, Duchess of Oldenburg, Yellow Transparent, Tetofsky, Peach of Montreal, McIntosh Red, and Emperor Alexander.

The White Astrachan, Northfield Beauty, Magog and Red Streak, and Scott's Winter, although very hardy, do not appear to be quite so vigorous in the spring as those first mentioned. Last winter was a particularly severe one, yet all those mentioned above came through uninjured with me. I have several other promising sorts under trial, but not yet sufficiently tested to pronounce upon with certainty.

A. A. WRIGHT.

The Editor would urgently request Mr. Wright to continue his notes on

the several fruits and to extend them to ornamental trees, shrubs and plants, and roses as well.

ALUM WATER FOR THE CURRANT WORMS.

DEAR SIR,—In the *Canadian Horticulturist* you ask any one who tries the alum water on currant worms to report its effect. I have tried it and it works splendid, just as good as hellebore. I first used it on gooseberry bushes nearly full of worms, and after two applications scarcely a worm could be seen.

Your obedient servant,

D. H. WEBBER.

Hamilton, June 12th, 1883.

HOW APPLES ARE SOLD IN ENGLAND.

At a meeting of the Massachusetts Horticultural Society, Charles F. Curtis gave an account of the method of selling apples in England. This is wholly by auction. There are five auctioneers in the business at Liverpool, and all the apples received are sold by one of them. The sale is held in a large amphitheatre, in the centre of which is a large table, on which a barrel of each mark is poured out as a sample. Each auctioneer sells for three-quarters of an hour at a time, and the sales continue, if necessary, till ten o'clock at night. Apples are sold in lots of twenty barrels each. The understanding is that the apples shall be perfectly tight in the barrel; when such bring twenty-five shillings per barrel, "shakers," or those not tightly packed, will bring four shillings less. The next grade is "wet and wasted," which bring only half the price of the best. The Baldwin is the only variety sold to any amount; it is the only one which can be obtained in sufficient quantity to sell by the thousand barrels. Retail lots and odds and ends are not wanted. Sales are held three days in a week.

The trade dates from about ten years ago.

THE KIEFFER PEAR.

That this pear, which is producing such innovation in pear culture, is a veritable prodigy, no one will perhaps deny. Therefore, in order to do it justice, it seems necessary to look upon it calmly and criticise it philosophically. That it is not perfect, all should admit—no fruit has yet been produced that is—but that it possesses much merit, from a somewhat full experience with it, I am ready to assert.

With its large size, peculiar form and surpassing beauty, together with its remarkable growth, early bearing, and ornamental properties of the tree, it has so fascinated many, that they are blind to any defects, while some disappointed ones can see in it nothing to admire. Still others, charmed at "first sight," but chagrined at finding it "not quite so" sweet as appearances led them to suppose, can speak of it only slightly.

After growing the Kieffer, seeing it in several different places in New Jersey and Pennsylvania, and having tested it three consecutive years, I would describe it in brief as follows:

In size it is large to very large, of double turbinate form, rich yellow, with carmine cheek when exposed to the sun; showy and exceedingly handsome; an excellent shipping and keeping pear; flesh harsh-grained and of variable flavor; when well grown and well ripened, rich, juicy, peculiarly piquant and spicy, and when poorly grown or poorly ripened, lacking in character. Season, October to December. Tree, a marvel of rapid growth and early bearing, producing large annual crops, symmetrical, with large, glossy, dark-green foliage in abundance, rendering it decidedly ornamental. Were it of uni-

form good quality, little indeed beside could be desired in it as an autumn pear. Although occasionally a specimen of high quality can be found; in the hands of the masses, who would not, it is fair to suppose, treat it properly, it will be found of second or third class quality.

Finally, from its many properties of a high order of merit, and lacking, as it does, only uniform good quality—like the Concord grape, Wilson strawberry, Ben Davis apple and other varieties of extensively grown popular market fruits that might be enumerated, all of which are fully as poor in quality as the Kieffer—I am entirely satisfied it has not only come to stay, but is destined to become equally popular. I should have arrived at this conclusion from its market qualities, luxuriant growth and productiveness alone; but when I consider its superlative value for canning, surpassing all other varieties of pears—so desirable, indeed, for the purpose that the canning establishments alone will take all that can be produced for at least the next ten years, at highly profitable prices—I cannot perceive how it can prove otherwise.—J. T. LOVETT, in *American Garden*.

SOME MARKET PEARS.

The Bartlett has the greatest number of good qualities combined, including free and handsome growth, early bearing, fair fruit, sound cores, great productiveness and special adaptedness to canning; and it is not surprising that it has stood at the head of the list for wide popularity for the past twenty years. Next to this, perhaps, is the later Beurre d'Anjou, which also has an unusual combination of good qualities. Its uniform and moderate bearing contribute to the full development of the fruit, and it is not common to find a small and poor specimen. The hand-

some form and good size are combined with an excellent flavor; and it possesses in an unusual degree the quality of keeping a long time after becoming ripe. The earliest specimens ripen in October, but there is no difficulty in keeping the later ones till January if in a quite cool room. Some orchardists would place the Seckel next, and where soil and treatment have been right, it has proved very profitable. Its freedom from blight and its reliability as a constant bearer, are qualities of great importance.

There are some other sorts which may become more popular as market pears in future, when better known to purchasers. Clapp's Favorite is the handsomest large early pear. Doyenne Boussock has some excellent qualities. The tree is a fine, healthy grower, both as a standard and dwarf, and the fruit is always remarkably fair. In quality it is about equal to the Bartlett. But from some cause it has never found its way largely into market, and brings but a moderate price. The Howell is a vigorous grower and prodigious bearer, and the fruit is unusually fair. Most judges place it as quite equal to the Bartlett in flavor, but it does not sell so well. It will probably be better esteemed in future years. The Buffum is perhaps the finest of all growers and the greatest of all bearers, but the fruit is too small and not good enough. It may, however, sell well in some markets, and if at only half price, an acre of orchard would bring good returns. Some orchardists place the Clairgeau as the most profitable late pear. A dish of selected specimens makes the finest show of all the sorts on the table. A loaded tree in autumn, with its large, ruddy, brilliant pears, is the most showy sight among pear trees. The quality is sometimes pretty good, but O. B. Hadwen, of Worcester, says he doubts whether any connoisseur in pears can be found who ever ate a whole Clairgeau,

and that it is preferred by restaurant and hotel keepers to Anjou because it lasts longer on the table.

Among dwarfs, Duchesse d'Angouleme stands high above all others for profit, the hardiness and fine growth of the tree, and the large and showy fruit, being its special recommendations. Its remarkable freedom from blight admits copious manuring, so essential to the best growth of nearly all fruits.—*Country Gentleman.*

DRIED FRUIT.

The *Grocers' Bulletin*, of Chicago, says:—A few years ago the amount of dried fruit shipped from the south was scarcely worthy of note, but since then the business has reached very considerable proportions. The south has an almost undeveloped mine of wealth in the production of fruit, especially for canning and drying purposes. For the production of peaches, plums, grapes, early apples, and all the fruits, the climate is unsurpassed, and yet less fruit by far is consumed each year per family, whether in its fresh state or canned or dried, than at the North, where it is produced under far less favorable conditions. The States bordering the Ohio valley on the south, and including Arkansas, ought to become as noted for their fruit crops as the country bordering the Delaware and Chesapeake bays. Attention is being turned in that direction, and each year now sees a larger supply coming from the south to the northern markets, giving a good promise for the future in this line of production. Our first of the season's supply of small fruits in the Chicago market now comes from the Gulf States, the shipping points receding north as the season advances, giving us berries, peaches and apples weeks before the crops of southern Illinois—on which only a few years

ago we mainly relied—are ready for market. But the business is yet only in its infancy, and the capabilities of the country in the way of production hardly tested. The demand for fruits in all forms is steadily increasing, and there is little danger of over-production if the products are put into a non-perishable condition by canning or drying.

TRANSPLANTING QUINCE TREES.

W. W. MEECH, so well qualified to advise in such matters, gives the following directions in the *June American Agriculturist* for handling quince trees:

The distance apart to plant quince trees depends on circumstances and surroundings, and the form it is intended to give the head of the tree. Six, eight, ten, and twelve feet apart in the rows have been recommended. My oldest trees are eight feet apart, and have done very well; but that is too close to admit of any but hand-culture. I next planted ten feet apart; but that is also too close. I have widened the distance between the trees of successive plantings, until I now set them fifteen feet apart. As generally grown, from twelve to fifteen feet will be found to give sufficient room. The largest quince tree on record was standing near Geneva, New York, about thirty years ago; it was thirty feet high, had a trunk six feet around; with a branching head seventy-five feet in circumference. An orchard of such trees would need at least twenty-five feet between them. How old this tree was I could not learn, but there are two quince trees on the farm where I was born, which are more than fifty years old, and still bear a little.

The location of each tree being fixed, dig the hole. This should never be less than three feet across, however small the tree may be. It should always be wider than the roots extend each way,

the wider the better; and unless the subsoil is clayey enough to hold the water, it is well to dig at least a foot and a half deep. I usually dig two spades deep, heaping up the soil on the sides of the hole, and throwing the subsoil around on the surface. I then return a portion of the soil to the hole, on which the tree is set, and a wheelbarrow of richer earth is filled in among the roots, as the rest of the soil on the margin of the hole is returned. I get this richer earth generally by taking two or three inches of soil from my poultry yard. When the hole is nearly full I put around the trees a good mulch of leaves, refuse straw, or any similar material, and lightly cover this with earth to hold it in place. This will protect trees from drouth better than watering will, and help to maintain an equable temperature of soil. It will also become a good fertilizer.

ENSILAGE.

The results of some experiments with ensilage made at the New York State Experimental Station, are thus summed up:

Our conclusions in regard to ensilage, as derived from this one experiment, must be considered both favorable and unfavorable to its claims. When it is the sole food it seems a food favorable toward maintenance, unfavorable to the production of milk, unfavorable toward the total production of butter, but favorable for the recovery of the butter represented by the fat of the milk. We may infer from reasoning, that the mixture with other foods may tend to obviate, in a certain degree, the unfavorable indications. Its effect upon the general appearance and health of the cow when fed in excess, seems detrimental to a slight degree, but when fed as an addition to other foods, the effect, so far as we can reason, would

seem to be favorable.—E. LEWIS STURTEVANT, *Director.*

PRESERVING PEAS.

The most effectual method we have found for preserving peas from withering or drying up in a drouth, is to mulch them thickly with coarse hay or straw, to a width of at least two feet on each side of the row. Our garden soil is a fine, porous gravel, and unless the season is cool and moist, the pea vines dry up so badly as to produce little fruit. Mulching heavily is consequently a necessity in order to save them. By doing this, we have obtained as good crops as when May, June, and July were cool and rather rainy. It is not necessary to bush dwarf peas. Still, when exposed to a strong wind, they will sometimes blow down, and then the further advantage of their being mulched is that the pods are kept clean and dry, and escape being mildewed. It is an excellent thing also to mulch both pole and bush beans, melons, squashes and cucumbers in the same way.—*American Agriculturist for June.*

RIPENING GRAPES.

Josiah Hoopes says in the *New York Tribune*: "No surer evidence of the impropriety of defoliation to admit the sun's rays can be cited than the results of recent experiments in bagging grapes. We see that the covered clusters ripen more thoroughly, color more beautifully, and assume that flavor which, without artificial aid, in many sections they rarely attain. The foliage in a great measure acts as the lungs do in the animal creation, and every perfect, healthy leaf taken off a plant destroys a portion at least of its power of subsistence, for vegetation extracts from the air a wonderful amount of nutriment, which enters into its organization through the myriads of minute

apertures which nature has so wisely ordained for the express purpose. Then why partially cut off its means of supply to gratify the whim that fruit must receive the direct rays of the sun?

BOOK NOTICES.

TRANSACTIONS OF THE MISSISSIPPI VALLEY HORTICULTURAL SOCIETY.—This forthcoming volume, advance sheets of which have been kindly furnished, will prove one of the most valuable horticultural publications that has ever been given to the American public. It will not only contain reports of the sayings and doings of the society at its meeting in the city of New Orleans, in February last, but will also contain in full the many valuable papers which were read before that meeting. We desire to call attention to the very valuable paper by Professor S. A. Forbes, State Entomologist of Illinois, devoted to the insects injurious to the strawberry, which treats not only of those which are troublesome in the Mississippi Valley, but also of all the insects known to be injurious to that plant. He considers the strawberry worm, *Emphytus maculatus*, one of the most destructive enemies in localities where it has secured a footing, but not as widespread as the leaf roller and some of the various beetle larvæ which injure the root and the crown. He speaks of it as occurring in great numbers through central and northern Illinois, Missouri and Iowa, and reaching as far east as Ontario, Canada. The remedies which he recommends are Paris green or powdered hellebore. The strawberry leaf roller, *Anchylopera fragariæ*, he mentions as another of the most destructive insects of the strawberry, which at one time threatened to put an end to its culture over very large areas, and probably would have done so, at least for a considerable time, if

successful remedies had not been discovered. These were mowing the field after the strawberries had been picked, and burning it over when the leaves have become dry. This process does not hurt the plants, and checks the leaf roller at once, so that in two or three years its depredations become insignificant, if indeed the insect is not wholly exterminated. He also mentions the flea negro bug, *Thyreocori sulicarius*, as sometimes very injurious to the strawberry, puncturing the stem with its beak and sucking the sap, thereby causing the blossom to wither. The strawberry crown miner, *Anarsia lineatella*, seems to be a recent invader of the strawberry, shewing both the ability and disposition to do serious mischief. He discovered it last September by the roadside in plants which had escaped from cultivation, about 75 per cent. of which were infested with this caterpillar, which had eaten out the interior of the crown, in a manner similar to the crown borer of Illinois, and equally serious. This caterpillar is about two-fifths of an inch long, reddish pink on the back, fading to dull yellow on the second and third segments; the head is yellow and each segment has a few shining redish dots arranged in imperfect rows. He says that Mr. Wm. Saunders, of London, Ont., is to be credited with the first public mention of their injuries to this plant. The strawberry crown borer, *Tyloclerma fragariæ*, he says, has been known as one of the worst enemies of the strawberry for more than fifteen years. It is a shy, sluggish insect, rarely seen outside of its burrow, and incapable of flight. He is not aware that this insect has been found injurious except in Illinois and Missouri. The only method of subduing it seems to be one as destructive to the plants as to the insect, namely, ploughing up the strawberry field. Enough has been said to show the

practical value of this paper, which was followed by another, upon "The best strawberries for home use and for market," by E. D. Webb, Kentucky, who said that under the head of strawberries for distant markets, he could name only the Wilson and Glendale, remarking that the Wilson has now outranked all others as a shipper, proving more nearly a success, and now more grown for commercial purposes than any other variety. The paper by F. P. Baker, upon "irrigation in horticulture," will be found exceedingly interesting and well worthy the careful perusal of every one living in a climate subject to summer drought. Another very interesting paper was read by T. T. Lyon, Michigan; the subject was "ruts in horticulture." We have not space for a synopsis of this valuable paper. We advise our friends to send \$2.00 to the Secretary, Mr. Wm. Ragan, Clayton, Indiana, and secure a copy of the transactions and study this paper for themselves. Gov. Furnas, of Nebraska, furnished a very interesting paper upon "tree planting on the plains," which contains much information concerning the growth of timber and the value of nearly all of our forest trees for various uses and commercial purposes. Dr. Jno. A. Warder, Ohio, furnished a valuable paper on "the effect of forests upon health," shewing the importance of trees as a safeguard against malaria. The paper upon "marketing of fruit," by E. Hollister, Illinois, is replete with valuable information to everyone engaged in the packing and shipping of berries and other small fruits. Mrs. H. M. Lewis, Wisconsin, furnished a paper on "birds in horticulture," and she says that if Dame Fashion would declare that the English sparrow was the coming bird for ladies' headwear and parlour decoration, as the sunflower has been of late, it would be a boon to the coun-

try. The paper upon "the adornment of rural homes," by Mrs. Huntley, Wisconsin, is not only beautifully written, but full of information, derived evidently from her own experience, that cannot fail to be of interest to us, whose climate so closely resembles that of her own home. The Secretary, Mr. W. H. Ragan, of Indiana, contributed a paper upon the question, "Can we master the insect enemies of the orchard?" in which he seems to give way to the fear that through want of concert of action among orchardists, the insects are likely to have their own way. We commend this subject to the attention of our Ontario orchardists, for truly if our efforts are either spasmodic or isolated, we shall not be able to cope successfully with the insects which have invaded our orchards, and which rapidly render our marketable fruits small by degrees and beautifully less. The paper upon "the management of peach orchards," by G. W. Endicott, Illinois, treating on the varieties to plant, of pruning, gathering of the fruit, etc., will be exceedingly interesting to those of our readers who live within the peach growing regions. The paper on "grape growing and civilization," by Isidor Bush, Missouri, will be of interest to our grape growers, being, however, suggestive rather than practical. We commend to our hybridists the paper by Dr. J. Stayman, of Kansas, "on the scientific production of new fruits," which will be found replete with suggestions bearing upon their success well worthy of their attention. But there is not space to enumerate a tithe of these interesting papers. Enough has been said, we trust, to shew the great value of this volume of transactions, not merely to the members of the society by which it is published, but also to our Canadian fruit growers. The mechanical workmanship displayed in the publishing of this report is of

the very best in every respect, and we trust many of our readers will procure it and find its perusal both interesting and profitable.

ORNAMENTAL AND TIMBER TREES NOT NATIVE OF THE PROVINCE OF QUEBEC. By Chas. Gibb, Esq., Abbotsford.—Mr. Gibb has been at great pains, not only to introduce hardy fruits into the Province of Quebec, but also such ornamental and forest trees as are likely to prove valuable in that province. This little pamphlet of nearly eighty pages is full of information of great value, not only to the Province of Quebec, but also to those in the Province of Ontario who live in the colder latitudes. We note that he desires particularly to call attention to the Russian mulberry. He says it has been introduced into Minnesota, at latitude 54, where it has succeeded perfectly. It begins to bear fruit at two years old, that the fruit is valuable, and is produced in large quantities, that the timber is good for building purposes, and lasts a long time when made into fence posts or railway ties, and its leaves are the best food in the world for silk worms. We commend this pamphlet to the careful perusal of all who are interested in the growth of forest and ornamental trees in the northern portions of Ontario.

THE PRIZE LIST OF THE INDUSTRIAL EXHIBITION of Toronto has just come to hand, from which we learn that the Exhibition is to take place from the 11th to the 22nd of September next. The grounds and buildings will be open to the public on Tuesday, the 11th Sept., at 9 o'clock a.m., and continued open each day from 9 o'clock a.m. until 10 o'clock p.m., up to the evening of Friday, the 31st September. The show of agricultural and dairy products, fruit, cut-flowers and vegetables, will take place the second week, during which every branch of the exhibition will be

in full operation. During the first week railway tickets, good to return any day up to close of exhibition, will be issued for a fare and a third, and on the second week return tickets will be issued at single fare, good to return up to the close. Admission for adults, or two children under twelve, twenty-five cents. Copy of prize list and entry form can be had on application to H. J. Hill, secretary, Toronto.

TRANSACTIONS OF THE MASSACHUSETTS HORTICULTURAL SOCIETY FOR 1882.—We are indebted to R. H. Manning, Esq., the Secretary, for the second report of these transactions. The Massachusetts Horticultural Society is one of the oldest on the Continent, and its transactions are always filled with valuable information. We have already given our readers some of the discussions relating to vegetables, and shall, as opportunity offers, lay before them such portions of these proceedings as seem to us most likely to be of service in our climate.

TRANSACTIONS OF THE ILLINOIS STATE HORTICULTURAL SOCIETY FOR THE YEAR 1882.—This valuable report contains some very interesting papers which were read before the society, particularly those upon "Some Vegetable Poisons," "Ornithology as Related to Entomology," "Raspberries and Blackberries," "Vegetable Gardening," "Gathering and Marketing Fruits and Vegetables," "Experiments in Horticulture," and "Trees for the Park, Avenue and Street." It is well worthy of careful study.

THE CANE JOURNAL is a monthly publication devoted to the growth and manufacture of the sugar cane, published in Clinton, Ont., at fifty cents per year, of which Mr. S. J. Andrews is the editor. As its title indicates, it is filled with information relating to the growing of the sugar cane in this

country, and the manufacture of it into syrup and sugar. It will be found of great value to those who feel interested in experimenting in the production of syrup and sugar from sorghum.

TWELFTH ANNUAL REPORT OF THE STATE HORTICULTURAL SOCIETY OF MICHIGAN, 1882.—This is one of the most important of the reports which we receive. This year it is a volume of over four hundred pages, full of practical matter of great value, ably edited by the secretary, Chas. W. Garfield. Some half dozen copies are for distribution to those of our members who apply for them to the editor of the *Can. Horticulturist*.

AGRICULTURAL RETURN OF THE BUREAU OF INDUSTRY FOR MAY, 1883.—This is a digest of the reports received at the Bureau regarding the present appearance of the crops of fall wheat, winter rye and clover, and gives information regarding the surplus of last year's crop still in the farmers hands, the condition of live stock, of fruit trees, and progress of spring work.

PROCEEDINGS OF THE GRIMSBY FRUIT GROWERS' ASSOCIATION.—This pamphlet of sixteen pages contains the papers read at the meeting of this Association, with the discussions thereon; it gives the experience of the members with apple, pear, plum, peach, and small fruits.

THE GRASSES OF TENNESSEE. By J. B. Killbrew, M. A.—This is a pamphlet of about one hundred and forty pages, replete with information upon meadow grasses, pasture grasses, and the management of meadows in the State of Tennessee.

THE ACADIAN SCIENTIST, Edited by E. J. Pineo, Wolfhill, Nova Scotia, is published in the interest of the Acadian Science Club, at thirty-five cents per annum. As its name indicates, it is devoted chiefly to Botany and Zoology.

THE BIOGRAPHER is published at 23 Park Row, New York. Devoted to short mention of the leading men of the present day, together with their likeness taken from photographs. Subscription \$2 50 per year.

THE BRIGHTON GRAPE.

At the meeting of the Western New York Horticultural Society, the Brighton grape received high commendation. Vines set at Fredonia have proved so profitable that 20,000 more of this sort will be set this spring. It is said to be a week earlier than the Concord and equal to the Catawba in quality. Its great fault is a tendency to overbear, which renders the fruit insipid, which accounts for the unfavorable reports from some places.—*Michigan Farmer*.

The Editor of the *Canadian Horticulturist* has not found the Brighton equal to the Catawba as grown on the Lake Erie Islands, but it is an excellent grape, ripening a little earlier than Concord, and much superior in quality. It should be used when ripe, as it loses instead of gaining in quality by hanging long on the vine after it is ripe. This variety succeeds well at Trenton.

APRICOT-GROWING IN CALIFORNIA.

The *Wine and Fruit Grower* says:—We learn from the Marysville *Appeal*, that apricot orchards are the rage in its immediate section. The last season, trees three years old paid ten dollars to the tree. The *Appeal* adds its testimony to the fact that there is not the slightest danger of overdoing the business, as the canneries can handle all the fruit that can be produced. It is stated that some of the farmers in the vicinity of Berryessa, located on what they have recently learned to call apricot lands, are preparing to engage extensively in fruit culture. Thousands of apricot trees are to be set out on lands heretofore "wasted" on grain culture.

MARCH WIND.

A squirrel heard against his door
The noisy March wind tap ;
He scanned the whitened woodland o'er,
And chattered : " Dears,
I've many fears ;
We'll take another nap."

A tiny spear of grass peeped out
And heard the wind so shrill ;
It paused a while, in fear and doubt,
Then seemed to say :
" I'll go away
Till skies are not so chill."

A little bird, all pinched with cold,
Sat muffled in a tree ;
It tried to sing, its heart was bold,
And feebly cheeped,
" The snow is heaped ;
Sad weather this for me."

A pretty rill crept from the ice,
To tinkle down the hill ;
It glanced in sunshine warm and nice,
Then quiet grew,
Ah ! well it knew
The frost would linger still.

A Snowdrop looked up at the sky,
With baby face so dear !
It thrived, though sleet and wind went by,
And smiled : " I'll stay,
Please, if I may,
Some weary heart to cheer !"

—Independent.

THE APPLE TRADE.—The exports of apples from the United States and Canada from 1882-3 were 365,107 barrels. A larger quantity could have been absorbed by the foreign demand but for the scarcity in the home markets.

DRIED APPLES.—Last year over three million pounds of dried apples were exported from the United States to the markets of China, India, Egypt, Southern Africa, Australia, and also to England and Scotland. Four-fifths of this amount was exported from the port of New York. The exporters gather them up from all portions of the country, the best, it is said, coming from North Carolina. The cores and parings are shipped to France, where they are used in changing the flavors of various brands of wine.

ASPARAGUS CULTURE.—How is it that most writers on asparagus culture recommend planting about a foot apart in the rows ? I think this is a mistake ; the best shoots can be obtained only by giving plenty of room to the plants ; four feet between the rows and three feet in the rows is near enough. Crowd the plants

and Conover's Colossal or any other giant asparagus cannot be produced, let the other treatment be ever so liberal. On the other hand give plenty of room and plenty of manure in good sandy loam, and giant shoots are produced every time. The roots require plenty of room to ramify in before large, well developed crowns can be secured, without which strong shoots cannot grow. When selecting asparagus roots to force, I always used to select the strongest and best ripened crowns I could get ; unless such were brought into heat good shoots could not be produced. Like the strawberry, this year's treatment is what forms the crops for next season, and if this is not attended to poor results may be expected the following season. Asparagus beds are often destroyed by not allowing enough of foliage to mature the crowns for producing next season's crops. M. MILTON. Mahoning Co., O.—*Country Gentleman.*

THE SWITZER APPLE.—The Switzer is one of the apples imported from Russia by the United States Department of Agriculture in 1869-70. The tree is a vigorous grower, upright and spreading, and an early and abundant bearer. The young shoots are dark brown (black walnut color) with not many, but very distinct white dots. Fruit medium to large, very smooth and fair, roundish-conical. Skin almost covered with bright, broad splashes of different shades of crimson, somewhat after the style of the St. Lawrence, but not so dark. No bloom. Stalk medium in size and length, rather deeply inserted. Calyx partially closed, in a shallow, smooth basin. Flesh white, soft, juicy, and of remarkably fine, rich flavor for a Russian apple. Very good to eat. Ripens in Northern Vermont from first to middle of September, or with Red Astrachan, but much more simultaneously. In quality it is the best of the Russian early sorts, being far better for eating uncooked than Red Astrachan, quite as beautiful, equal in size, and of about the same season. It will push the Red Astrachan hard as a market apple if introduced to general cultivation. The tree is considerably hardier than Astrachan, and bears very much younger. T. H. H.—*Rural New Yorker.*