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AUGUST, 1888.



The
Canadian

HORTICULTURIST.

FRUIT GROWERS ASSOCIATION OF ONTARIO

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THE
Canadian Horticulturist.

VOL. XI.

1888.

No. 8.



AUGUST, month when summer lies
Sleeping under sapphire skies ;
Open all the windows wide,
Drink the orchard's fragrant tide—
Breath of grass at morning mown
Through the leafy vistas blown—
Hear the clinking of the scythe
Sound mellifluent and blythe.
August, month when everywhere
Music floats upon the air
From the harps of minstrel gales
Playing down the hills and dales.
August, month when sleepy cows
Seek the shade of spreading boughs,
Where the robin quirks his head
Contemplating cherries red.
August, month of twilights when
Day half goes and comes again ;
August days are guards who keep
Watch while summer lies asleep.—*Ex.*

THE ROSE.

QUEEN of Flowers! How appropriate the title! And if, in the days of Sappho and Anacreon, this proud title was considered applicable to the Rose, when probably not more than two or three cultivated varieties were known, how much more suitable is it now when, after two thousand years of worship at its shrine, it has developed beauties then unknown, and varieties unnumbered.

It was a puzzle to us at one time to understand the meaning of the term "sub rosa"; the literal meaning was clear enough, but what was the sense of such a phrase as "under the rose?" Well it seems that in ancient days the rose was sacred to Harpocrates the patron of Silence, of which therefore the rose was the symbol. The phrase therefore means secrecy concerning all that follows; and, with the same idea, a rose is sometimes suspended over the dining-room table to remind every one that silence should be observed concerning that which is said "sub rosa" at dinner. It is with no such idea that we now write "sub rosa"; we have nothing to conceal, but on the contrary desire to write *super rosam* and to publish, for the benefit of all, any information we possess upon the subject of Horticulture.

The garden classification of roses is not very simple, for the characteristics of the varieties have not been well defined by nature. A simple and convenient general division is (1) *Remountant* (Fr. growing again), which includes

our valuable hardy roses, known as Hybrid Perpetuals. The latter is an ill-chosen name because they are not perpetual bloomers, but make distinct and separate periods of bloom during the season. The most prominent representative of this class is General Jacqueminot, a perfumed, beautiful dark crimson rose, especially valuable in bud. It was introduced from France in 1853, and the rage for its precious buds was so great in New York city that on one special occasion four of them were sold for \$15 each. Alfred Colomb is another exceedingly fine red rose of this class, and, though not so strong a grower, it is large, deeply built, and deserving special mention. Another rose just now (July 19) in bloom in our rose walk is of a brilliant rosy crimson color, especially when first unfolding; the General Washington. It is large and very double, but one cannot help a feeling of disappointment in finding that it lacks perfume.

In the second (II) division we may place the Bourbon, China, Tea, Musk, and others which are truly perpetual bloomers, and mostly very fragrant, but too tender for out-door cultivation in Canada.

In the third (III) division, we have the Garden, Moss, Brier, and Climbing roses, or those which bloom only once in a season. Madame Plantier is the most prominent among the garden roses; its spotless white flowers, amid its rich foliage, speaking to us of that purity which is so worthy of our highest aspirations. Among the mosses, the Crested is

the finest for buds ; but the most vigorous grower in the *Princess Adelaide* of which a very handsome painting is shown our readers in this number. It is an old variety, originated by Laffay in 1845, but is one of the most

desirable of its class. The foliage is large and sometimes variegated ; its bright pink, or rose colored, flowers are produced in clusters, and are very double and well formed.

DOWNY MILDEW.

PROF. F. LAMSON SCRIBNER of the Botanical Division of the Department of Agriculture of the United States, has just issued a report that is of considerable interest to grape growers. It contains the result of extended experiments conducted during 1887 in various parts of the United States, under the direction of the department, with several preparations of salts of copper for the destruction of Downy Mildew and Grape Rot.

A previous report had well described these fungi, and so prepared the way for intelligent operations. The Downy Mildew (*Peronospora viticola*) is of common occurrence in Canada, especially upon some of the finer varieties, as for instance the Salem, and is parasitic upon the leaves, young shoots and berries. The mycelium, or vegetable portion of this fungus, is only to be seen by microscopic examination of the green portions of the vine in which it grows. It does not penetrate the cells of the leaves, but grows between them, drawing nourishment from them however by means of minute suckers. As a result the cells turn brown, and ultimately the change of color is noticeable externally.

The downy white patches of mould from which this mildew gets its name,

and which are unfortunately so well known to grape growers, appear on the under side of the leaves, and are slender filaments growing out from the mycelium through the breathing pores (*stomata*) of the leaves. Upon these

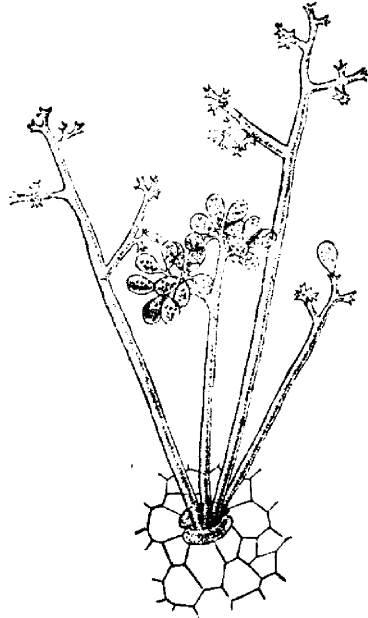


FIG. 61.

the summer spores are produced, tiny organisms corresponding to seeds of plants, so small that their longest diameter is only the six ten-thousandth part of an inch.

FIG. 61, which we copy from Mr.

Scribner's report of 1886, represents the filaments growing out through the stomatum or breathing pore of a leaf, and bearing the summer spores (*Conidia*) upon their summit, all of course greatly magnified. The number of such spores which may be produced upon a single vine is estimated to vary from two to ten millions; a fact which clearly explains how quickly a whole vineyard may be "struck" with mildew. One of these spores, falling upon a moist grape leaf, will germinate in a couple of hours, by dividing into distinct particles of naked protoplasm; these swim about for about twenty minutes by means of fine hair-like cilia attached to one side, and then settle down at rest and push out a germinal tube which penetrates the leaf and develops into a new mycelium.

The two remedies which have proved most effective in destroying this fungus are (1) the copper mixture of Gironde (or Bordeaux mixture) and (2) blue water (or Eau celeste).

The *Bordeaux mixture* has already been recommended in our reports, but we give the most approved formula, viz: Dissolve in a wooden vessel 8lbs of sulphate of copper in fifteen gallons of water; and in another vessel slake 10lbs of lime in 5 gallons of water. When both are cooled pour the latter slowly into the former, mixing the fluids thoroughly.

The *Eau celeste* is prepared by dissolving 1lb of sulphate of copper in 3 or 4 gallons of hot water. When dissolved and the solution cooled, add 1 pint of liquid commercial ammonia. Dilute to 22 gallons.

Both these remedies are proved to be an absolute remedy for mildew; but

to be effective three treatments are necessary, the first during last half of May, the second during the last half of June, and the third during the first half of August. To avoid injury to the foliage it may be necessary to use a weaker solution for the first treatment than for the second or third.

For applying these solutions the French have perfected excellent spraying machines of moderate cost. We copy an illustration of the Japy machine, which will give our readers a better idea of it than a written description.



FIG. 62.—JAPY SPRAYING MACHINE.

With this machine it is claimed that a single workman can treat ten or fifteen acres per day.

We hope our Canadian vineyardists will not be left behind by French or American growers. Negligent growers will be discouraged and driven out of the business by fungi and insects; while the enterprising and industrious vineyardist will have all the advantage of an improved market thereby, and succeed in cultivating varieties of special excellence, otherwise rejected because of the difficulties attending their culture.

THE SUMMER MEETING.

THE town of Picton is beautifully situated on a harbor of the same name, and is the chief town of Prince Edward County. Hitherto somewhat out of the course of the regular line of steamers, it will henceforth be no longer at that disadvantage; for the Murray canal, which will soon be completed, will enable the steamers to sail through the Bay of Quinte, calling at Picton, Belleville and Trenton on their way.

Mr. P. C. Dempsey, our director for this county, met us at Trenton and very kindly took us out to his fruit farm; for nothing is so interesting to a fruit grower as a visit to the orchard of a brother fruit grower. Mr. Dempsey's orchard of about fifty acres, consists chiefly of apple trees, of all the more profitable kinds, together with a good many sample varieties which he is testing. The varieties which he considers most profitable are the Duchess, the Wealthy and the Ben Davis; for although the later is poor in quality, yet its even form, good color, and productiveness make it highly valuable for export. His orchard has good and clean cultivation, and being situated upon an elevated slope, shows off to good advantage.

The meeting at Picton was one of great interest to all fruit growers. Specialists were present in the various departments of Fruit, Flowers and Forestry, and the result was most profitable.

Among those participating in the discussion were Chas. Gibb, Vice-President Montreal Horticultural Society; W. W. Hillborn, Horticulturist of the Experimental Farm, Ottawa; T. M. Grover, Norwood; Alex. McD. Allan, and many others.

The local attendance was comparatively small, because it had not been well published by members in that vicinity. This was a serious loss of

valuable information to the fruit growers of the county, who, had they been notified of the meeting would no doubt have been present in hundreds.

Our special thanks are due to the County Council for giving us a most enjoyable trip up the bay some five miles in a steam yacht to visit Glenora; a picturesque summer resort, with a very curiously situated lake at an elevation of nearly 200 feet above the Bay of Quinte. How this lake receives its constant supply of beautiful clear water no one seems to know; whether by means of a submarine connection with Lake Erie, or by some more mysterious means.

The kind courtesy of the Picton friends did not stop here; they so strongly urged the officials of our Association to remain over for a trip to the far-famed "Sand banks" that we consented; nor had we cause for regret. Fine large excursion carriages were provided, drawn by first-class carriage horses and the ten mile trip was soon made; showing us a fine farming and fruit growing district on our way, but alas! parched and baked by reason of one of the most protracted drouths ever known. What a strange sight those sand banks are! Great hills of sand, white as snow and fine as flour, covering several hundred acres of land, and constantly encroaching upon the farms so unfortunately situated. Well worthy was the excursion of the time it occupied, and our friends well deserved our parting cheers and song as the train hurried us away from Bloomfield station:—

"For they are jolly good fellows
Which nobody can deny."

We cannot close this account of our reception at Picton, without making especial mention of Mr. Wellington Boulter, the proprietor of the Bay of Quinte Canning Factory. This

gentleman began the business in 1882 and has now one of the largest industries of the kind in Ontario.

He puts up about half a million cans annually, and was the first to ship a car load of canned goods through via C.P.R. to British Columbia. His fruit is put up in such an excellent manner that it is sold without any

solicitation for orders, as is evidenced by the fact that last season he shipped six car loads to British Columbia, and twenty-three to Winnipeg. As fruit growers we desire to encourage this industry everywhere, as one which provides for the disposal of our fruits, and largely adds to the profits of the Canadian fruit grower.

HORTICULTURAL.

Keep the Cultivator Going.

"THE Snyder blackberry is good for drying on the bushes," is the criticism of an Illinois blackberry grower. I think this is a slander on the Snyder, I grow blackberries by the tens of acres, and in my thirty years experience, 1887 and one season ten years back were the only ones in which the vines received no rain from the time of blooming until the entire crop was gathered. Even under this test the Snyder did not dry on the bushes, but filled out well till the last berry, and were sold at big figures. The reason most blackberry growers fail in these dry seasons is because they don't properly cultivate. They say it is too dry. This is just why plants need culture, and I give it to them. I do wait until the ground is too dry and hard to run a cultivator through the rows but begin early and cultivate three to four inches deep every ten or twelve days until the crop is gathered, ceasing only in time to allow the canes to mature well. It seems hard to teach most fruit growers this particular trick, and for this reason I make more money from my raspberries and blackberries in dry seasons than I do when the weather makes them produce good crops with but little labor. I find the Tyler or Souhegan (I cannot see any difference in them) to be very profitable. They are hardy and early, most all gathered and sold when the Greggs

come into market, and are wonderfully productive. If properly cultivated, they keep up with me till the last picking.—[N. Ohmer.—*In Farm and Home.*]

Growing Strawberries.

ALMOST every owner of a garden thinks he knows all about growing strawberries, but it is not everyone that tends to them properly. There are only a few varieties that will pay to grow in hills with the runners kept off, and as a rule these kinds are fond of a heavy soil. As examples, the *Triomphe de Gand*, *Jucunda* and other large, highly flavored English berries may be thus treated. A portion of the runners, as well as every chance weed, should be taken from the beds now. This will soil the fruit unless covered with a light mulch, but no one should think of growing strawberries without mulching. This berry delights in water, and some of the finest we have ever grown were regularly irrigated. Although small, the vine is a gross feeder; the ground must receive plant food with no stingy hand before and after planting. It is a popular delusion that an abundance of manure causes more leaves and less fruit. This may be true with shy berries, but does not hold good with all. The Albany in its palmy days could be almost doubled in size by feeding. After the crop has been gathered the mulch

should be removed, the soil fertilized and cultivated until Autumn, when the mulch may be replaced in the shape of long straw manure. Strawberries ought always to be grown in rows with sufficient space to run a cultivator between. It pays in many ways, but above all in the matter of clean cultivation, which the bed system rarely obtains.—[Josiah Hooper.—*In Philadelphia Weekly Press.*]

The Cause of Peach Yellows.

I HAVE had much experience with the peach yellows, and have used all known remedies; yet some trees would be healthy and others would have the yellows. I believe the disease is not simply due to lack of potash or of culture or of pruning, or of general management, but to something back of all these, which I shall name as difference

of heredity. If we could absolutely get back and behind all bad heredity, all tendency to disease and keep free from contagion by all insect influence, I should think we were on the high road to success against the peach yellows. Meanwhile, my advice is to plant only the best trees of medium growth on land of only moderate fertility. Give moderate yearly rations of a special peach manure, and cultivate well up to mid-summer; but then quit. Remove at once any trees that appear diseased. Prune judiciously so as to get even well-rounded heads. Thin out sufficiently to let in sunlight, and a free circulation of air, doing this just before the buds show color in spring. Thin the crops severely. When the tree is matured, manure liberally.—[P. M. Augur, Connecticut State Pomologist.—*In Farm and Home.*]

NEW STRAWBERRIES.

BY JOHN LITTLE, GRANTON, ONT.

SHALL we test them? "Yes" by all means. And for several reasons, (1) we can then tell if they are true to the *claims* of the *originator*; (2) whether they are *old* varieties bearing *new names*, and (3) if they are of any value away from the originator, and planted in a different locality and a soil different from that the plants came from. Most all of the new varieties are tested 'here' at no little care and trouble and also at considerable expense.

Only a few of the *old* varieties remain. Since the introduction of the Jessie and Bubach, these head the list of those fruited here; then Gold, Logan, Itasca, Belmont. Of the old varieties I still retain Summit, Crawford, and "Ontario." This latter variety is claimed by a writer in *Orchard and Garden* in the July No.

to be the "Sharpless." With all due respect to the writer of said opinion it is a different plant in leaf and stem, rarely misshapen, rarely a *whitetip*; being more solid, and a plant more prolific in fruit than Sharpless.

A number of seedlings fruited here this season, and some of them twice, are worthy of mention. Mr. Loudon's Nos. 15, 22, 23, 34; Mr. Townsend's Nos. 3, 9, 10. I have been induced from the extravagant reports made about the following to test them here and compare them with the other seedlings growing alongside of them:—Haverland, Gandy, Warfield, Bomba, Carmichael, Mammoth, Monmouth and Hampden.

It is often a wonder to me how some who are in the practice of introducing new varieties and of lauding them with such an amount of praise, that when

another novelty appears the good points of the former are forgotten, and held in contempt as compared with the value of the one now offered. I am led to these remarks from a notice in *Orchard*

and *Garden*, regarding Jewel Summit, and Crimson-Cluster. This notice is sent for the benefit of those of little or no experience.

"Consider the plants how they fruit."

THE SPARROWS' DEATH WARRANT.

A BIG CONVENTION IN CENTRAL PARK IN A BELLICOSE MODE.

THERE was a convention yesterday in the Central Park. Owing to the confusion on the Mall the convention was held under the cedars on the Fifth avenue side, near Sixty-eighth street.

All the members were in high feather. The subject that had drawn them together was the bill now in the hands of the governor making it a misdemeanor to feed a sparrow. The chairman was a lively, fat little fellow, who came to the meeting covered with dust. He had had a little difficulty on the road with a friend who had claimed "first call," on a bluebottle fly. His name was Jack—plain Jack Sparrow.

In calling the meeting to order the presiding officer declared the new law which makes it a misdemeanor for any person to feed or shelter sparrows was an outrage. It was a bill that was aimed at every bill owned by every member of the convention. This remark made a twitter in the audience, and the chairman lifted one leg up under him, cocked his head to one side and looked very knowing.

"I live in one of the city parks," said one of the speakers, "and never did any one an injury. My family for many generations have been fed and taken care of by the visitors of the park. We never had to soil our claws by scratching for our own living, and even when we saw the worms and insects on the trees, we kept away from the horrid creatures, although they sometimes annoyed us dreadfully."

The church sparrow followed. His constituents had sent him to the convention to have a grievous wrong redressed. "A great beast of a sexton has been tearing down the vines that cover the front of our church and destroyed thus the shelter where hundreds of our homes have been made for many generations. The minister of the church is as great a brute as the sexton, for I heard him say only last Sunday, 'I can't hear myself preach for those sparrows. They disturb the peace of the whole congregation. The trustees talk of moving up town to avoid the noise of this neighbourhood, when the only noise to be heard is that of the birds. Pull down every nest and drive them off or they will drive us away.'"

A house sparrow, who had built his home over the window of an editor's room came next. "My grievance is one that is heart-rending," said he. "My family has the cosiest place imaginable under the brown stone carvings of a window. But there is a dreadful creature who comes home just before daylight and lights the gas in the room where he opens the windows and smokes until my family are nearly smothered. Then, when we get up about sunrise and talk to our neighbours across the street he uses the most horrible language and accuses us poor innocent birds of disturbing his sleep. Why doesn't he take his sleep at night and write his editorials in the daytime? I believe he is responsible for the new law, if anyone is, for he

has been writing about our being accountable for the loss of so many shade trees by driving off the insectivorous birds."

A member from New Jersey took the floor. "The State that I have the misfortune to represent," said he, "has long been an enemy to our race. They shoot us over there and then sell us in Washington Market for reed birds. The farmers are our enemies. Sometimes we find a young girl or a child who will try to feed and protect us; but because we prefer the food put out for the chickens and that which we find in the grain fields, to the bugs and worms they want us to eat, they kill us without mercy. Their law is that a sparrow can be killed every day in the year."

Just at this point Cock Robin spoke up. "What were you brought here for, if it wasn't to eat up the measuring worms that are destroying all the shade trees?"

This stirred up the belligerent sparrows, and the City Hall Park bird called out, "Don't give us any of your sass or we will lick you as we have

every bird that has been in our way." "Yes," said a cat bird, "You have driven us away from our woods and orchards, where we were a blessing to the farmer, protecting his fruit from insects that are now killing the trees all over the land." The oriole, grosbeak, cherry bird, woodpeckers and flycatchers joined in the chorus against the sparrows. "Between you sparrows and the women's bonnets we have been almost exterminated," said a Baltimore oriole, as he fluttered his beautiful orange and black plumage. "So it is with us," chimed in the bluebird. "You have driven us from the homes we made in the hollow trees and old fences, and we, who were the first to welcome the farmer in the spring, have been scarcely able to fly from tree to tree for the bugs and worms that we feed upon. You are the enemies of man, not his friends. You are not pretty to look at, and you have not even a voice for singing, you screechy, quarrelsome things."

This was too much for the sparrows, and the convention broke up in a row. As usual, the sparrows got the best of it.—*N. Y. Herald.*



FLOWERS

THE CULTIVATION OF THE PANSY.

BY H. SIMMERS, TORONTO.

VIOLA Tricolor, the pansy, violet or heart's ease is very abundant in fields, meadows, woods, etc., in Great Britain and in most parts of Europe; it is also found in North America, although probably introduced there from the Old World. It is a very variable plant, its flowers differing much in size and colour.

In some of its commonest forms it is a mere despised weed, with small flowers. Other wild forms have much larger flowers, and to it are referred the large and beautiful garden pansies, the varieties of which are innumerable.

The pansy, French *pensé*, probably from the drooping attitude of the flower suggestive of thoughtfulness, is one of the finest of florists' flowers, and no flower has been more improved by cultivation.

The finest garden pansies are not preserved or propagated without great difficulty, and require most careful cultivation, without which they quickly

relapse to their wild forms, for which reason they are usually grown from seed.

Florists demand that a pansy shall have a round, flat and very smooth edge, the petals thick and velvety, the three lower petals alike in their ground colour, the lines or pencillings in the centre bright and distinct, the two upper

petals (which always differ in color from the others) perfectly uniform, the flower measuring one-and-a-half to two inches across. The largest flowers generally are liked for open air culture, which, however, reduce in size much more quickly than the smaller varieties. In view of having gone into the general history of

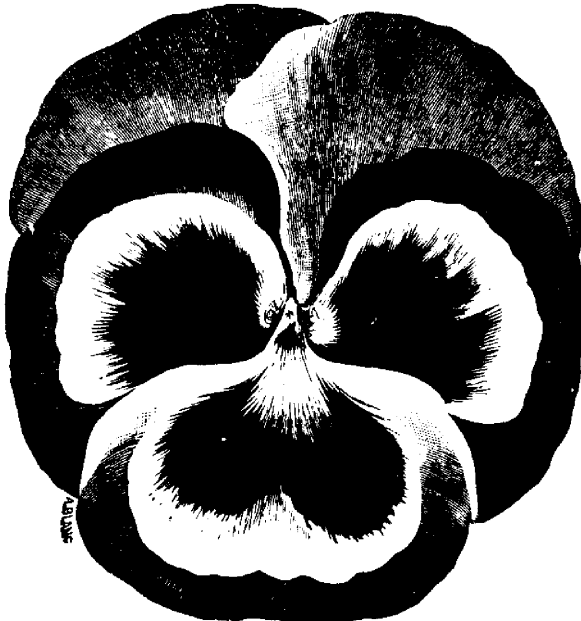


FIG. 63.—CASSIER PANSY.

the pansy, we mention the different classes:—Cassier's five blotched pansy; Trimardeau, extra large flowering pansy, and common German mixed pansy. Other classes could be mentioned, but these three are best for general cultivation. Cassier's, five-blotched pansy is the handsomest and most perfect large flowering variety in

cultivation ; it does not produce such a large, flabby flower, but the markings are very distinct, and they retain their size until late in the season.



FIG. 64.

TRIMARDEAU PANSY.

On the contrary, the Trimardeau pansy, for those that admire a very large flower, is just the thing ; but the flower does not retain its size as long as the previous class, therefore, to the general taste it is not as acceptable, dwindling down by the end of the season to almost smaller flowers than the German mixed.



FIG. 65.—MIXED GERMAN PANSY.

The German mixed are exceedingly pretty, and for general purposes as good as the larger kinds, retaining their size until the end of the season. In the next issue of the HORTICULTURIST I will speak of the mode of cultivation.

Propagating Roses by Cuttings.

THE florists who make a specialty of raising young roses for the market generally, shortly after this time of year, begin in earnest the Summer propagation. The general method adopted now, is to have a sort of out-of-doors frame-work covered with muslin to keep off the burning sun's rays—and high enough, about the same as an ordinary span roof greenhouse. Beneath this are common hot-beds, a row on each side with a walk wide enough for passage between. In the Summer about a foot of good manure is enough to form the bottom heat. Cuttings are inserted, rarely more than a single eye cutting, into sand, heavily watered to settle the sand, and the whole is done.

It is an almost sure method of propagation, particularly if there is good half-ripe wood. A similar place would be good to strike almost anything, hence those who have not got much in the way of a propagation house, can in the Summer erect one as good as the best for a very small outlay of money. The main point, in propagation by cuttings, especially among soft-wooded plants, or soft wood as a material, is to keep the cutting in a close, moist atmosphere until such times that nature can put forth the effort of a set of new roots, to sustain the evaporation from the foliage. A dry atmosphere or a wilting down of the cutting is generally fatal, while any plant that easily keeps from wilting naturally, or is placed artificially favorable to prevent evaporation, is what is sought after by the expert propagator.

The wet sand theory, which consists of taking any flat vessel, like a saucer, and filling in an inch of sandy soil, and water an inch above that, will, if placed in the sun even, and cuttings placed in it, be found no mean appliance for rooting a few plants, and is explainable on the theory that the moist atmosphere immediately surrounding the cutting prevents the wilting spoken of.

—*Prairie Farmer.*



NUT BEARING TREES.

BY FORRESTER.

IN LOOKING over all kinds of trees, or seedlings if in a condition to be handled, the nuts would be sure to be most noticed. Apart from their size there is a certain firmness about them, and in the small tree, such as we would have for plantations, a sturdy health making them special favorites with me, and, I think, with other planters.

Among seeds it would seem impossible that the little wafer of an elm seed would produce as large and strong a tree as the rough hard walnut, and the seed of the eucalyptus which makes such great and rapid growth in warmer latitudes is only a fine powder. Many trees have a seed like a bean or legume which is easy to plant and to rear; but from a collection of seeds I think both novice and planter would select a nut as certain and reliable and would say to themselves "I would like to see what kind of a tree this would produce."

The nut plantation is not raised without some difficulties, as in all seedlings there are variations just when least expected by the inexperienced. After planting the nuts, before they dry out in the fall, in good clean land, we go about the following spring looking for the little trees. I found it surprising how many weeds got up earlier than the nuts. In May probably not one will sprout. In June we are suddenly surprised, a walnut standing up six inches in a single night and a little later the hickories and acorns are starting regularly.

The butternut is still slower and on first July none are yet found—soon

after an odd one will appear. The chestnut is more satisfactory, for it sprouts vigorously the first thing in the spring, and has a good show of leaf before the weeds start the race. Many acorns and all of these nuts are to be found sprouting still later in the season, and a few will lie over one or two more winters to gather up sufficient moisture before looking for sunshine—seeds of ash, locust, and pines sometimes do the same and we do not like to attack the weeds too vigorously for fear of cutting up the precious trees.

In the little trees of the first year the nuts so generally send down a strong tap root often longer than the stem that when fit for transplanting there is a most satisfactory appearance of vigor, and the loss of the tap root will not permanently injure the tree, for in practice I find no such results; as after cutting off the tip if broken, the large fleshy root of a walnut has nourishment enough in itself to start it into active growth in any soil. There is only one case I ever heard of in which the tap root is essential to the success of the tree. That is in oak planting on the hills of California where it seems the grandest success has been obtained by planting acorns of the English oak in the place where they are to remain, and the tap root finds its way to moisture in a position where no other tree can live. In the nursery, if the long root is cut by a tree digger or by a spade a year before the tree is to be moved a full growth of side roots will be induced and the tree may be transplanted at any time. These large rooted seedlings are not too

small, and, carrying such a store of excellent food grow earlier and seem easier to hurry forward in all soils.

Among larger trees in forest or park is there not a greater dignity attached to nut bearing trees than others. The oak of old England is honored above all; and in our own country is there to be found a grander tree than the walnut or chesnut?

I never weary admiring the foliage of the walnut and butternut—so firm, as an American writer says, so tropical in appearance—now found here in only isolated specimens. How much more grand a whole grove of such would look?

In groves of second growth oak and hickory, the pliable-looking stems, often forty or fifty feet high, while only six inches in diameter, show a different kind of strength, just as valuable and attractive. Lighter woods, such as ash larch and cherry, furnish a commodity for market at a earlier age. When looking at value without considering the age the nut tree will take the first place all over America—the West nominally walnut—New England the chesnut and further South the pecan nut and hickory.

Are the trees slow growing? I hear so many say they do not plant these trees because they fear life is too short to insure the planter enjoying the shade or the profit of his planting—this only suggests to me promptness in beginning and a vain regret that I have allowed even a few years to go by before a love of trees for their own sakes made me willing to plant, let who will reap the product—my pleasure in planting is certain and there may be disappointments many times before the harvest.

To the Owners of Woodlands.

The Pennsylvania Forestry Association, in one of its recent circulars, publishes the following clear and forcible recommendations, which are applicable to every owner of a forest or of a piece of woodland. You will do a very great

service to the agricultural interests of the Province if you reproduce them for the benefit of your numerous readers.

Toronto.

A. K.

The association wants every farmer, every owner of a woodland to know:—
“That his wood-lot contains a valuable crop, which it will pay him, not only to cut down and slaughter, but to manage and utilize judiciously;

“That it is possible to utilize the old trees in such a manner that a new, valuable crop is produced instead of the inferior crop, which now so often takes the place of the virgin forest after indiscriminate cutting;

“That as an intelligent manager and husbandman, he would do better to see to a natural reproduction of his wood-lot, to cut with regard to the spontaneous young growth, rather than to clear indiscriminately;

“That the time has come when forest destruction must give way to forest management; for timber is becoming more valuable every year, as it grows scarcer in the country at large;

“That in the woodlands in proper proportion lie, to a large extent, the conditions of a favorable climate, and successful agriculture;

“That upon forest growth depend healthfulness and equableness of climate;

“That the forest breaks the force and tempers the fury of the northern and cools and moistens the breath of the southern wind;

“That by its own cooler and moister atmosphere in summer and warmer atmosphere in winter, it tends to equalize temperature and humidity over the intervening fields;

“That while the open treeless, heated prairie prevents the fall of rain, allowing moisture-laden clouds to pass over it undrained, we must thank our forest-clad hills and mountains for our more frequent, more gentle, more useful showers; and, above all,

“That the forest cover of the mountains preserves the even water flow in our springs, brooks and rivers, while

its destruction, or even deterioration, increases the danger of floods, washes off the fertile soil, and then brings down unfertile soil into fertile valleys, lowers the water level, and, in general, throws out of balance the favorable conditions for agriculture :

"That while we advocate the cutting and using of the wood crop as we need it, we must not any longer, as we have done, squander and waste it ; we must not clear where clearing produces danger to the surrounding country.—*Globe*.

Hampton Court Gardens.

SOME fifteen miles from London on the banks of the Thames is situated one of England's historic palaces, viz., Hampton Court. It is well known to all that this was the residence of Cardinal Wolsey during the reign of Henry the VIII. It is now held by the crown and open to the public at all times. The palace itself is a fine type of the architecture of Henry the VIII's time and contains some fine pictures in the state apartments, as well as numerous other articles of national and historic interest.

Hampton Court is also celebrated for its fine gardens, splendid park and grand old trees. Nowhere near London can early landscaping be seen to better advantage than at Hampton Court. The palace stands in its own grounds, or palace gardens, but connected with, or adjoining it, is Bushey

Park. The palace gardens are on the east and south sides of the palace. Those on the east being laid out with shrubs and trees and containing the well known "Maze." The gardens on the south side or in front of the palace are laid out in ornamental walks and flower beds and the carpet or ribbon gardening is here done to perfection. The dark red geranium *Jacobi* is here used with good effect.

Most of the flower beds are of the same shape—about twenty feet long and ten feet wide—but no two are arranged alike. Some will be made to resemble a turkey carpet, while others are laid out in solid masses.

Among the features of Hampton Court are the grand old chestnut trees. These were planted under the direction of Cardinal Wolsey and are laid out in avenues running south, east and west from the main entrance of the palace. We have never seen finer trees than these and those in Bushey Park. In the latter they are truly grand. It will give you some idea of the beauty of these trees when I tell you that the main avenue or drive from the entrance of Bushey Park to Hampton Court Palace is over a mile long and has five rows of trees on each side of it ; each of these trees is perfection and a study in itself. At this season the chestnut trees are all in full bloom and they are certainly a sight to see and remember. [T.—*American Florist*.]

LONDON, *June 1*.



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 Annual Meeting.

It has been decided by the Board of Directors to unite the Annual and the Winter Meeting of our Association in one, and make one grand meeting of three days duration. Instead therefore of having a meeting in September, at the time when fruit growers are least able to attend, the next meeting will take place in the winter, the dates to be announced later.

It has further been decided to hold this meeting in the city of Hamilton. This announcement will be welcome to a large number, for no place could possibly be more conveniently situated to the majority of our fruit growers. Besides it is the native city of our Association, for here in the year 1859 the first meeting was held with Judge Campbell as president.

Notes and Comments.

DESTRUCTION OF THE ELMS.—The *Scientific American* sounds a note of warning concerning the danger to which one of our most elegant of park and street trees is likely to become

subject. In the vicinity of New York and in the Eastern States, the imported elm leaf beetle is becoming very numerous, and the larvæ is destroying the foliage of both European and American elms, especially however preferring the former. If allowed to go on unchecked this enemy will probably destroy these favorite ornamental trees. It seems that kerosene emulsions, carbolic acid solutions, etc., have been tried without satisfaction owing to the difficulty of applying them to large trees.

DESTRUCTION OF THE PURPLE FRINGE. Bulletin No. 1 Hatch Experiment Station, Mass., reports a beetle which is destroying this valuable ornamental shrub. It is the jumping Sumach beetle, (*Blapharida rhois*), an insect about $\frac{1}{4}$ of an inch long, with head and thorax of a dull yellow color, which leaps when disturbed somewhat like the habit of the small flea beetles. The eggs deposited in masses of thirty or forty about the 15th of May, hatch out in about two weeks, and proceed to their work of defoliation. The remedy found most successful was spraying with Paris green and water.

GIRDLING THE GRAPE VINE.—The same bulletin gives the results of experiments conducted by Prof. Maynard, in girdling the vines to hasten ripening of the fruit. This practice has been so generally condemned, as giving increase of size at the expense of quality, that we read with interest the results of any careful experiments. The object with which it has been employed in the past has been chiefly to prepare large specimens for exhibition, and many a prize has been in this way won at our fairs. But these experiments have been conducted chiefly for the purpose of hastening the crop for market. The method at first employed was the common one of removing a ring of bark $\frac{1}{4}$ of an inch wide early in July from the canes to be removed next pruning, thus avoiding any injury to the vine itself: latterly however a less expensive method has been employed, namely by twisting a No. 20 wire very firmly about the canes the last of June above the point where the cane is to be cut away. The result has been the conclusion that the increased size and early maturity *was not at the expense of the quality*, that the vine was not injured by the process and that the increased price obtained for the early fruit more than paid the expense of the work.

THE BRIGHTON GRAPE.—W. M. P. of New York State, says in the *Rural New Yorker* that his own experience, and that of his neighbours with this grape is that it is unprofitable. He has 300 vines, which bloom well; grow well; but do not yield on an average more than two pounds per vine. The flavor pleases, but does not command a sufficient advance in market price to make up for lack in quantity.

CABBAGES IN JULY.—Mr. James Dunlop, of St. Catharines, called at our office on the 20th of July. He was on his way to Hamilton with an enormous load of cabbage heads, in the growing of which he is very successful. He has about 50,000 heads ready for the

market and has been shipping in every direction for a month past. His plan is to sow the seed in September, winter them under glass, and plant out in April as soon as the ground is ready. The variety which he grows most extensively is the Early Jersey Wakefield, of which he can raise about 10,000 per acre.

CURCULIO AND THE CHERRIES.—Mr. C. M. Weed, Entomologist, Ohio Experiment Station, reports in Bulletin No. 4, the result of careful experiments. Spraying cherry trees with London purple and with lime to prevent injury by the plum curculio. His conclusions are as follows:—

(1.) That three-fourths of the cherries liable to injury by the plum curculio can be saved by two or three application of London purple in a water spray (in the proportion one ounce to five gallons of water) made soon after the blossoms fall.

(2.) That if an interval of a month occurs between the last application and the ripening of the fruit no danger to health need be apprehended from its use. As a precautionary measure, however, he would advise in all cases, and especially when there are few rains during this interval that the fruit be thoroughly washed before it is used.

(3.) That lime is not so certain in its preventive effects as London purple, saving in these experiments only forty per cent. of the fruit liable to injury.

THE CONN GOOSEBERRY sent us for trial by Mr. P. E. Bucke, Ottawa, has borne its first fruit. In size it is large, bigger than Smith's Improved, or the Industry; in color it is a very dark green, and its quality is good. *The Ottawa* is also a large gooseberry, much lighter green in color, and has a thinner skin than the Conn. Neither of these so far has shown any indications of mildew.

THE MARLBORO RASPBERRY is this year a great success with us. It is heavily laden with the most beautiful fruit; so large and firm that it would

carry well and bring the top price in the market. The color is also greatly in its favor, being a delicate light shade of red somewhat resembling the Brandywine. Its period of ripening is about ten days before the Cuthbert, or about the same time as the Turner. In quality for the table it is inferior to the Turner, or the Clarke

THE GOLDEN QUEEN is certainly well named for color. Compared with the Caroline it is a far brighter yellow, and hence much more attractive. Then its

firmness is another important feature. Such varieties, as the Caroline, Herstine, Clarke, etc., which settle so much in the baskets after picking are unsatisfactory for shipping.

THE PARRY STRAWBERRY has commended itself as a table berry above some two dozen of the more prominent varieties being tested at Maplehurst. The quality is excellent, little, if at all inferior to Triomphe, and its bright glossy scarlet berry is very large and very attractive.

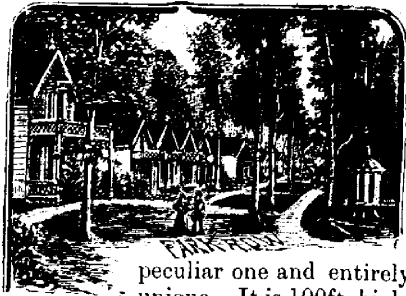
GRIMSBY SCENERY.



VISITORS to Grimsby all unite in their admiration of its natural attractions. Ontario the beautiful lake, so called by the aborigines is here seen from the summit of Niagara Escarpment to the best advantage. Standing on the much frequented elevation familiarly known as the "Point," 300 feet above the water level, a most beautiful

strip of orchard land is spread out before one, with the lake in the background, and it stretches out with increasing width until terminated by the Niagara river, and old Niagara town. Often from this "Point" Brock's Monument, as well as some prominent buildings in the city of Toronto, both

about 36 miles distant, are visible to the naked eye. Yonder, about two miles east of Grimsby village and along the bank of the lake, almost concealed in a forest of native elm, bass-wood, chestnut, oak and other trees, is the now famous Grimsby Park, in daily connection with Toronto by means of the steamer Greyhound. Avenues, lined with inexpensive but very tasteful summer cottages, are laid out in every direction throughout the grove, within easy reach of the Park Temple. This structure is a most



peculiar one and entirely unique. It is 100ft. high, and will cover about 7000 people. It is constructed somewhat in the shape of an old-fashioned bee-hive, an immense cone, without frame-work; and built wholly of $\frac{3}{4}$ in. lumber, of which about one hundred and eighty thousand feet were required. Walking along the

mountain brow for a mile-and-a-half westward, we reach another much frequented pleasure resort, known as "The Fairview," from which Burlington Heights, Burlington Bay, and Burlington Beach are all plainly visible. Here we are in the very heart of the fruit section of this district. Lying just below us is Maplehurst fruit farm and the home of the secretary; and on one side, adjoining, is the fruit farm of Mr. A. H. Pettit, president of Lincoln Co. Farmers' Institute, and on the other that of Mr. E. J. Woolverton, president of the Niagara District Fruit Growers' Co. Orchards and vineyards in every direction are gradually covering the

farms, adding much to the beauty of the landscape.

By the side of the Point is a deep picturesque ravine, running back about a mile to Beamer's Falls, and on the opposite side another interesting eminence called "The Split Rock." The grove on the Point itself is some acres in extent, and affords a most delightful ramble. The popularity of the Park at the lake suggests equal possibilities for this charming spot. Why is it that so many natural parks in our country are left so long unimproved, and unvalued, until the shortsighted woodsman has entered with his axe, and spoiled their beauty.

QUESTION DRAWER.

Grafting and Budding.

72. Is it safe to graft in July? I do not remember seeing any directions for budding in the *C. H.* Could you publish some.—G. H. F., *Ottawa.*

GRAFTING should be done in spring time with scions having undeveloped buds.

The process of budding was described in Vol. X, p. 189. It is easier than grafting, and answers precisely the same purpose: for stone fruits—indeed such as peaches, plums, apricots, etc.—it is far better than grafting, for the latter method is almost sure to fail unless in very skilful hands.

Budding may be done from about the 1st of July to the middle of September taking fruit trees in order as follows: plums, cherries, pears, apples, quinces and peaches; the object being to perform the operation at the time when the bark parts freely from the wood, and when the bud to be inserted is somewhat matured.

The whole process is a very simple one, and there is no reason why any one of our readers should not have the pleasure and the advantage of practising it. For the benefit of our new subscribers we reproduce the illustra-

tions showing the method of operation, which will save many words. The stock to be budded should be of the present year's growth—with the peach this is especially important—and therefore seedlings which are too small for budding this August, or on which the bud fails

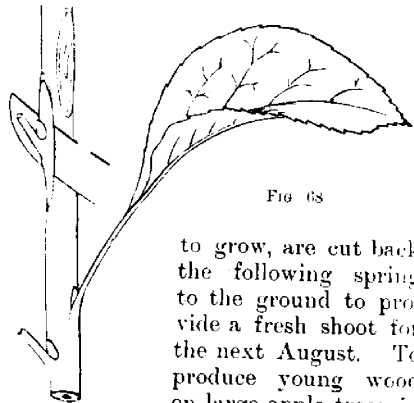


FIG 68

to grow, are cut back the following spring to the ground to provide a fresh shoot for the next August. To produce young wood on large apple trees in

such places as are required for budding limbs may be cut off in spring time, and such shoots allowed to grow as are most desirable for the purpose. Fig. 68 represents a portion of a stick of buds showing how the leaves are removed leaving a small portion of the petiole

as a handle, and also the manner of cutting out a bud ready for insertion. The English gardeners remove the small bit of wood from the inside, but we do not find any advantage in this what-

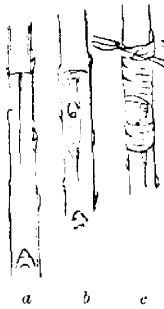


FIG. 69.

ever, and the work is more speedy without. The kind of blade a budding knife should have is also shown. Fig. 69 *a*, shows how to make the T cut through the bark which is carefully opened and the bud pressed into place as at *b*. The whole is tightly bound as at *c*, with some soft yarn, or strips of the inner bark of the bass wood which is preferred by nurserymen to any other material. The bandage should be loosened within a week or two, or the growth will cause it to cut into the wood. The stock above the bud is to be removed the following spring.

Orange Rust of the Raspberry.

73. The enclosed leaves, show how my black raspberry bushes are affected. They were slightly affected last year, but much worse this year. Will you give the name, the cause and the cure if any? It does not affect the red raspberries though adjacent or even in contact. I must find a remedy or soon go without black berries.—J. B. AVLESWORTH, SEN., *Collingwood*.

I enclose a leaf or so of Mammoth Cluster. can you kindly inform what is the matter and what is the best remedy, last year I had some like it, I cut down the canes and burnt them.—C. GREENWAY, *Strathroy*.

Reply by Prof Panton, Ontario Agricultural College, Guelph

I SEND you an outline drawing of the fungus affecting the specimens sent; it was drawn by one of my students Mr. J. A. Craig. It is likely a representative of the genus *Puccinea*, the same genus as rust of wheat and barberry, but not the same species. The spores are very large and distinct, and readily seen with a power of 200 diameters. Fig 70.

Reply by Prof Janus Fletcher, Experimental Farm, Ottawa.

THE fungus sent by you as found on your raspberries is I believe known as

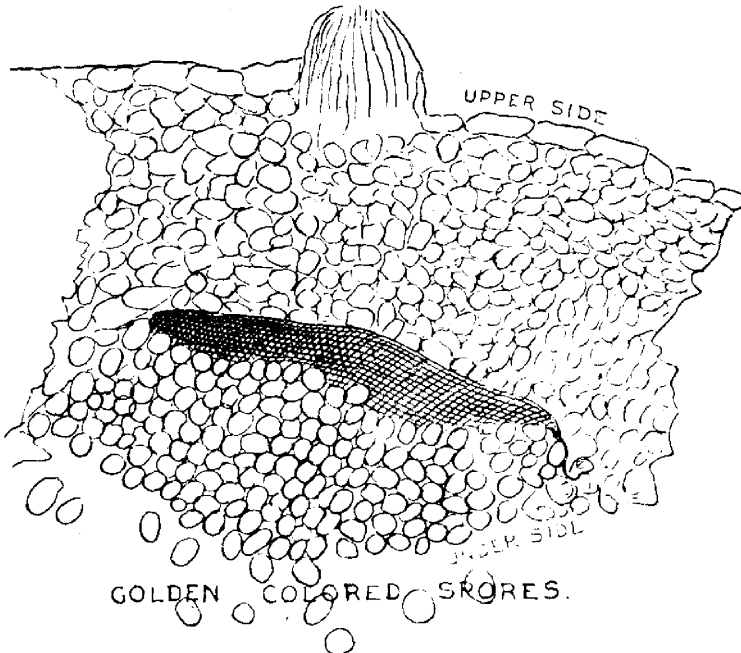


FIG. 70

the "Orange Rust of the Blackberry." It is I regret to say common on both blackberries and raspberries. The remedy I believe is prompt removal and burning of the affected plants. My books are all packed up still but, from memory, I think it is called *Cœoma nitens*. There was an article on it in the *Prairie Farmer* of either 1885 or 1886; I think the former.

Oleanders and Auriculas.

74. What is the proper soil and cultivation of Oleanders, also that for Auriculas? I have been very successful in raising the former from cuttings, but I think I could do better with proper advice, etc.—RICHARD HENRY LIGHT, *Kingston*.

Reply by D. W. Beadle, St. Catharines, Ont.

OLEANDER—Well rotted sods enriched with old manure and leaf mold is the best soil in which to grow the Oleander. It should be kept in the winter at a temperature of from 35° by night to 45° by day, and in summer may be placed in the open ground in any part of the Province where peaches can be raised successfully. It is best propagated by cuttings of nearly ripe wood, immersed in phials of water, which are kept in a warm place, if possible on bottom heat. These cuttings will soon emit roots, and as soon as the water is nearly filled with them may be taken out of the phials and potted singly in small pots. These plants are subject to attacks of an insect known as "Scale," and sometimes are infested by the "Mealybug." These can be kept in subjection only by careful watchfulness on the part of the cultivator, removing them as soon as they make their appearance. A little spirits of turpentine applied with care, is an effectual remedy with the "scale." I have usually been able to dislodge the "mealybugs" by syringing them with a mixture of whale-oil-soap and tobacco-water, to which has been added a little spirits of turpentine.

AURICULAS—In treating of the cultivation of these plants, I may as well state at the outset that our climate is by no means as favorable for the cultivation

of these flowers as that of Great Britain. Our summers are too hot and our winters too cold to admit of their being treated in the same manner as cultivators in England treat them. Your subscriber will probably succeed better by obtaining seed from some first-class reliable seedsman which he will sow in boxes in the greenhouse in the month of March or April in light soil; as soon as the plants show some four or five leaves, transplant them into pots which have been filled with soil made largely of rotten sods, enriched with well rotted manure, not less than two years old, to which has been added about an eighth of coarse sand. These should be kept in a mild temperature where they will get a little sun, until all danger of frost is past, then they may be transplanted into the open border on the north side of the house or high fence, where they will be protected from the direct rays of the sun. The border should be made quite rich with well decayed compost, and thoroughly underdrained, so that stagnant water can remain about the roots.

When these plants bloom he can mark those that he wishes to preserve, if he is desirous of raising only first-class blooms; but if not particular in this respect he may build a frame about them all, and as the cold weather comes on, nearly cover them with dry leaves, and place a sash over them, giving them air on mild days, and keeping them from being soaked with the rains; and as the weather grows colder, keeping them well covered until the mild weather appears in the Spring. Should a spell of warm weather occur during the winter it may be necessary to open the sash sufficiently to give them a little air, taking care, however, that the leaves with which they have been covered, do not become soaked with rains or melting snows. Great care will be needed as the spring comes on to give them air in the mild weather and protection at night until danger from frost is past, when the sash can be removed and the covering

of leaves taken away; then stir the soil gently, and if necessary enrich by a top dressing of compost. If he wishes to propagate from any of the plants which he has raised because of their superior flowers, it can be done by carefully dividing the roots after blooming season is over and the seed has ripened.

Cutting off Tops of Strawberry Plants.

75. Does it work well to cut the tops of strawberry plants after they are done fruiting to keep them in bounds?—READER OF THE HORTICULTURIST, *Penetanguishene.*

Reply by John Little, Granton, Ont.

REMEMBERING the leaves are the life of the plant, it will retard the growth of the plant; but with frequent watering and keeping the earth loose about the plants, and an occasional dressing of wood ashes, not too much at a time, he will be surprised at the result.

In the west, where they are troubled with *Blight, sun scald* and *Crown-borer*, they mow off the tops of the plants, and when dry burn them off, and cultivate without any detriment to the plants.

Movable Fence.

76. Would you please describe the Movable Fence referred to in the report for 1886, p. 11.—H. E., *Napanee.*

It was Mr. Beadle who made the reference and he says he had in mind the common hurdle fence, well known to all old-countrymen, and made of various patterns in this country; they are easily taken apart, and moved as

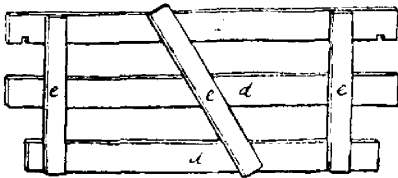


FIG. 71.

circumstances require. The *Rural New Yorker* gives a very good design for a movable fence in No. for June 16, which we copy. Fig. 72 represents the post which is made of an inch board 5 feet long and 8 inches wide;

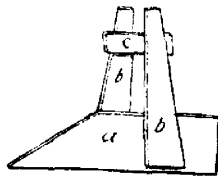


FIG. 72.

of the pannels may be 12 or 16 feet long, and the strips *e. e.* are 4 inches wide the middle one included to prevent endward movement.

b. b. represent upright pieces made of 2 inch plank, of desired height, and *c.* is about 4 inches wide, and supports the top board *d.* of the pannel. The boards

Apple Root Grafts.

77. Will you be kind enough to let me know in your next number how Apple Grafts set this spring should be treated for three years. I have set them in rows two-and-a-half feet apart and eighteen inches in row. How late in the season should they be cultivated and how pruned?

You have set your rows too close, and you will find great difficulty in getting through with a horse and cultivator when the trees are three years of age; three or three-and-a-half feet would be better. Ten or twelve inches apart in the rows is far enough. Give good cultivation as you would corn, up to the month of August, when you should cease it to allow of early ripening of the young wood. Prune by encouraging one upright stock, but do not rub off spurs or leaves too closely up the trunk, or the tree will be too slender.

Pruning Small Fruits.

78. Should the young wood of this spring's growth of the currants, gooseberries and raspberries, which is most rampant, be cut back? If so, when, and how much? Wm. McM.,—*Niagara.*

THE young wood of raspberry and blackberry canes should be cut back when it reaches the desired height in order to produce stocky growth, and to develop side branches. Two-and-a-half or three feet is a good height.

It is usual to prune currant and gooseberry bushes in fall or early spring, thinning out the old wood and all superfluous branches, and in case of the former to cut back the young wood one-half or two-thirds its new growth.

OUR FRUIT MARKETS.

Canadian Fruit Markets.

The writer has had consignments of fruit wholesaled in Toronto, all through the months of June and July; the sales averaging higher than for some years past. Some of us were very much discouraged at the prospects when import duties on fruits were removed; but although early fruits from the South have come forward in great abundance, and the New York State growers have come into direct competition with Western Ontario growers, we are holding our own beyond our best expectations. No doubt the extreme drouth in many portions has cut off the usual supply in many parts, which may in part serve to explain the exceptionally good market thus far for small fruits.

Looking up our shipping book we find that in 1885 Canadian *Strawberries* opened in Toronto on the 16th of June at 20c. and declined gradually to 5c. on the 2nd of July; in 1886, they opened on the 8th of June at 17c. and declined to 5c. on the 22nd of the same month; in 1887, they began at 10c. on the 16th of June and declined to 5c. by the 24th of June. This year we had them wholesaled on the 19th at 17c., the prices remaining very firm, and only for a few days were any sold as low as 7c. In Montreal, Ottawa and Kingston the prices ruled lower than in Toronto, which is unusual.

Cherries have been a short crop in the Heart and Biggareau varieties, which have consequently sold well; in Toronto the 12qt. basketful has wholesaled at from \$1.00 to \$1.50; in Montreal at from \$1.50 to \$2.00; and the Duke and Morello class has sold nearly as well, although more abundant. Indeed it appears that fruit growers might profitably engage more largely in the production of such pie cherries as the early Richmond, Late Kentish and Montmorency.

Currents have also done well this season, especially the Red Cherry which always takes the lead for price. This variety has averaged \$1.00 per 12qt basket wholesale. The small varieties as Red Dutch, White Grape, Victoria, Versailles, etc., are much lower in price, averaging about 75c.; still they are more abundant bearers.

Small Gooseberries, as Houghton and Downing are a slow sale at from 50 to 60c. per basket, but the large varieties are wanted and are the only ones worthy of our attention in growing for profit. Such varieties as Whitesmith, Industry, well grown Smith's Improved, etc., being from \$1.00 to \$1.25. If we can succeed in destroying the mildew with "*Eon Celesti*" we yet may compare favorably with English gardeners in raising big gooseberries.

After so many seasons of low prices it is quite encouraging to have a year that opens up so favorably, as so far this fruit season of 1888 has done. —EDITOR.

Prospects for Apple Exportation.

SIR.—I came in due possession of your favor of the 28th of May, but I don't think there is

much to interest our Canadian friends in the movements of our soft fruit here, but when the apple season commences give us a reminder and you shall have a proper report as to our markets here, and a cable as well when necessary. I am glad to hear you remark that the prospects of apples with you are so good, because our own are an *utter failure*. There seems therefore every probability of a large business with you in the coming season. You may make a very good thing out of "Kings" if sent when wanted. If we continue in correspondence regularly I shall keep you well posted. I am, Dear Sir, yours very truly, J. B. THOMAS.

CONVENT GARDEN, LONDON, ENG.,

3rd July, 1888.

Montreal.

New Apples.—Several cars of new apples have arrived from the South-western States, and have been disposed of in jobbing lots at \$5 to \$5.50 per bbl. A large trade is expected in American apples this year, and as the receipts increase lower prices may of course be looked for, until the early Canadian fruit arrives, when it will be seen whether the American product will be able to compete with the home growth. We notice that Canadian apples are likely to meet with competition from Australia during the coming season, 14,000 boxes of which were received in London, England, about two weeks ago on the P. & O. steamer *Oceana*. It was found however that a considerable portion of them was frozen whilst *en route* in the refrigerators, but this will of course be remedied in future. Former shipments it appears gave great satisfaction. Australian products are bound to become important factors in the English market, and in time will no doubt be formidable competitors with Canadian and American goods.—*Trade Bulletin*.

July 2th.

Shipping Canadian Fruit.

"WELL," said Mr. A. McD. Allan, president of the Ontario Fruit Growers' Association, "what I said the other day has had a good effect anyhow. The steamship companies had tried to make one point in saying that in New York shipments they had to make transshipments. There were no more transshipments via New York than here. The goods went direct to the dock at New York. Notwithstanding what the railway and shipping people have said the facts are dead against them, as they had the actual experience of a number of different shippers who had put the thing to the test practically. On one occasion he had given notice of one particular shipment that it was to be a test case, but found that it made little or no difference. It was unsatisfactory compared with New York.

"There was some misunderstanding regarding what was called cold blast. As he understood it, it was atmospheric blast, and the

steamship men understood it as the fan system. He had been over some of the Beaver line steamers in which they were putting in the fall system and introducing the air through all the different decks. This had been done already in three of their vessels, and from what he had seen of it would be a perfect success. He believed it was the best thing he had seen yet, and that it would fully meet their requirements in the way of keeping up a sufficient circulation of cold air to preserve their fruits in good condition. They had also offered to give them through bills of lading from any point of shipment in Ontario to any point inland, or otherwise in Great Britain or on the continent, and were really doing all they could to meet their demands. They had also agreed to issue bills of lading upon their own account, and not on the shipper's account as heretofore. They had only been able to secure this advantage in sections where there was railway competition, when they had no competition to deal with one road absolutely refused to give them under any circumstances. It was a fact that fruit via New York by special trains was passed through much quicker than by the Canadian system of ordinary freight trains. The express companies had been spoken of. It was quite suf-

ficient for him to point to one instance regarding the handling by express companies. The Dominion Government at the time of the Indian and Colonial exhibition paid the express companies high rates for the purpose of having fruits intended for that exhibition carried with extra care. The fruits were put up in neat packages easy to handle but notwithstanding all their precautions they found that in the handling the soft fruits were smashed almost to pieces. Out of two tons they could only get just sufficient to make a display on the table. In a good many varieties they could not even get this. The whole thing was a disaster as far as the express companies were concerned. They had suggested to the railway companies a remedy that would completely get rid of the damage in shunting. It was by introducing what they called in England "buffers" between the cars, which would obviate the damage inflicted by shunting. The freight train system would then be satisfactory.

He thought the other steamship companies would follow the example of the Beaver line, and in that case they would not ship via New York at all as they preferred to deal with their own Canadian lines.—*Montreal Gazette*.

OPEN LETTERS.

Grenville, P. Q.

THE Ostheim Cherry distributed by F. G. A. Ont., duly reached me, though in my absence. It was carefully planted, and is doing well. My Russian Cherries are bearing a few cherries this year. A good many of my Rus. Apples are also bearing a few fruit. Most of the sorts stand well and are vigorous growers. Some Duchess Apples were *root frozen* on sandy soil where the snow blows off. Promise of plenty fruit of all kinds this season.

With regards yours truly,
June 19th, 1888. ROBT. HAMILTON.

Retirement of Mr Garfield.

THANK you kindly for sending me your paper for the many years I have been Secretary, as an exchange for our volumes and bulletins. Failing health has compelled me to retire from active work and may I ask you to continue the exchange, changing the address to Edwy C. Reid, Allegan, Mich., my successor in office. I can assure you that Mr. Reid will be always ready to give you information, and fully reciprocate any courtesies you may extend to him.

Yours truly,

CHAS. W. GARFIELD, *Secretary*.

MICHIGAN HORTICULTURAL SOCIETY,
SECRETARY'S OFFICE.

GRAND RAPIDS, MICH., June 19th, 1888.

The Walnut.

The Editor HORTICULTURIST.

SIR,—After the question of Walnuts in this climate was spoken of, Mr. Gibb suggested a possible difficulty which should not be overlooked. He says that although the trees will grow and mature its fruit the wood may not be fully developed and may prove unfit for manufacturing purposes.

His well known and very exact observation of the natural history and growth of fruit bearing trees causes us to regard his opinion on this subject with respect. It is so well known that apple trees of all sorts are carried to their extreme climatic limit, and beyond it until they fail to produce fruit or wood, it will likely be found that the wood will not be sound, even at the limit where good fruit is produced. This can be easily observed, and of course applies to all trees. Walnut, catalpa and other trees are on trial in places where they are known to be hardy, and in view of the many new plantations proposed the success of these trees is worthy of all attention. T. M. GROVER.

NORWOOD, 16 July, 1888.

Fruits in Western Ontario. Death of Mr. James Dougall.

SIR,—I send you another name for membership to your Society, that of a gentleman who has put out over thirty acres in grapes this spring.

I hope to be able to send you other names of those who have gone into this business in a considerable way.

The fringe of country along the Detroit River, North Essex, bids fair to be a wine country. South Essex, on Lake Erie shore and on Pelee Island have produced quantities of grapes, some wine on the shore and large quantities on the Island.

The wine trade in this Northern part of the country, principally by old France French people, has a ready market in the Province of Quebec. The product and its use is growing. There is plenty of demand for a pure article.

If your September meeting is not too far away, I hope to show Barry, Worden, Wilder, Concord, Lindley and Iona. And next year an additional lot.

Not that we expect to rival the experienced growers of the Niagara District. But the Detroit District has capabilities and we want to show them.

While I write, I think it proper to mention—that no mention has yet been made in your Monthly Journal (so far as I have been able to find)—of the death of Mr. James Dougall of Windsor, who died on April 5 last, aged 78 years. Mr Dougall did much for the advancement of horticulture, when there were very few promoters of the science. He was well known to nurserymen throughout the country.

In some of your older reports, I notice honorable mention made of his work in that connection. I remain, Dear Sir yours truly,

W. H. ASKIN.

WALKERVILLE, July 12th, 1888.

NOTE.—It would add very much to the interest of our meetings if a larger exhibit of fruits, flowers, ingenious devices for the benefit of fruit growers, samples of canned and evaporated fruits, etc., were made. True there are no prizes offered for competition, but what is done is surely of far more importance, viz.: the report of our committee upon each exhibit with their criticisms for the benefit of the public.

From Chatham.

DEAR SIR,—There will be a very poor crop of winter apples here this year; a good many early apples; grapes, good; raspberries, pretty good; strawberries (all done) were light, and completely demoralized as to season of ripening; currants, worse than the average. Farm crops very good. We had nice rains at intervals. Our land stands a drought well. The pastures have kept extra good.

Yours very truly,

F. W. WILSON.

CHATHAM, ONT., July 12th, 1888.

REVIEW.

NEW YORK EXPERIMENT STATION. Sixth Annual Report.

The reports of the botanist in this station have been of special interest to us, because of the useful experiments tried with fungicides. The experiment tried with hyposulphite of soda for the apple scab has been noticed in these columns; now we observe that sulphide of potassium has been successfully used in several experiments for destroying fungi. A solution of the strength of one-half ounce of the sulphide of potassium to a gallon of water was sprayed upon the Industry gooseberry, which variety mildews badly at Geneva. The operation was repeated several times in June especially after heavy rains. The result was the destruction of the fungus which had not passed beyond its early white stage. The same remedy is found beneficial in clearing strawberry leaves of the spotting due to the fungus, *Ramularia Tulasnei*, sometimes called "Sun burn"; and it is believed to be also a remedy for the pear and apple scab.

Fortunately for us in Canada, the dryness of the early part of both this and last season has been very effectual in clearing our apples of this latter fungus, by preventing the germination of the spores.

HOW TO GROW TOMATOES.—No. 2 of the Fruit Growers' Library, published by the *Horticultural Times*, 127 Strand, W. C., London, England.

BULLETIN No. 5.—Report on the experiments made in 1887 in the treatment of the Downy Mildew and the Black-Rot of the grape vine, with a chapter on the apparatus for applying these remedies. Prepared by F. Lamson Scribner, Dept. of Agriculture, Washington, U. S.

CALENDAR of Queens College and University, Kingston, Canada, for the year 1888-89.

BULLETIN No. 1.—Hatch Experiment Station of the Massachusetts Agricultural College, July, 1888. H. H. Goodell, director.

THE management of the Buffalo International Fair, which will be open September 4, have been particularly fortunate in procuring the able services of Mr. Vick, of Rochester, to take complete charge of the Horticultural Department. The name of Vick, of Rochester, suggests in itself at all times a vision of blooming plants and fragrant flowers.

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CONTENTS OF THIS NUMBER.

	PAGE.
August.....	169
The Rose (Editor).....	170
Downey Mildew (Editor).....	171
The Summer Meeting (Editor).....	173
Horticultural.....	174
New Strawberries (John Little, Granton).....	175
The Sparrow's Death Warrant.....	176
Cultivation of the Pansy (H. Simmers, Toronto).....	178
Nut-bearing Trees (Forester).....	180
To Owners of Woodlands.....	181
Hampton Court Gardens.....	182
Editorial.....	183
Grimsby Scenery.....	185
Question Drawer.....	186
Our Fruit Markets.....	190
Shipping Canadian Fruits.....	190
Open Letters.....	191
Review ..	192

Miscellaneous.

THE NEW LIST OF PLANTS AND TREES.

1. **The Vergennes Grape.** Color, light amber; productive; fine for winter use; one year old.
3. **The Princess Louise, or Woolverton.** A most beautiful Christmas dessert apple, rivaling the Maiden's Blush in beauty and excelling the Snow apple in quality; new; one year old.
4. **A Hardy Rose Bush.** (Name given later.)
5. **A Package of Winter-flowering Bulbs.** (To be sent out in November, 1888.) Containing one Polyanthus Narcissus, Grand Monarque; one Hyacinth, Crimson Belle; and one Anemone, double.
6. **Two Chinese Primroses.** Different colors.
7. **Package containing Japan Ivy (Ampelopsis Veitchii)** the most beautiful of all creepers for a stone or brick wall; needs no support; colors gorgeously in autumn; and **Geranium**, double scarlet or double white.
8. **Four Strawberry Plants, viz:—**Two Logan and two Itasca. Two new seedlings, produced by J. H. Haynes, of Indiana. The Logan is proclaimed to be very productive, excellent in quality, and for keeping and shipping unequalled. The Itasca is a seedling of the Manchester.

NOTE.—Each Subscriber will please notice that the Fruit Growers' Association does not guarantee anything concerning the merits of the above list of plants, but simply send them out on the recommendation of their introducers to be tested by the members and reported upon for the benefit of the public. The distribution will be made in April or May 1889, except as otherwise stated.

THE ANNUAL REPORT FOR 1887 is now published. It is a fine volume of nearly 200 pages, full of needful information concerning the cultivation of apples, plums, grapes, strawberries, etc., and containing President McD. Allan's valuable address on Shipping Apples.

GOOD OFFERS.—Anyone sending in names of new subscribers, accompanied by the usual member's fee for each, may have an additional choice of plants for each new subscriber in place of the usual commission. A **FREE COPY** of the **CANADIAN HORTICULTURIST** for one year to anyone sending in five new subscribers and five dollars. A **BOUND VOLUME** for four new names and four dollars. *Back Numbers* can still be furnished, but as January, 1888, is likely to run short four numbers of 1887 are offered in its place. New subscription may begin with any month. Address,

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