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THE SUMMER DOYENNE.

THE CANADIAN HORTICULTURIST.

VOL. XXI.

TORONTO,

1898.

SEPTEMBER.

No. 9



THE SUMMER DOYENNE.

OUR frontispiece represents the earliest of our summer pears, and one which should be in the garden of every fruit lover in our country. Too small in size to be very profitable for the commercial orchard, this fault is no objection for table use, for which its excellent quality makes it a decided acquisition. If we had our markets to ourselves as we had in days gone by, no doubt we could sell a small pear with profit, but now we get California Bartletts in the early part of our pear season, and nobody will buy small pears when they can buy large ones.

The fact is that conditions have completely changed, until seasons and distances have been almost completely overcome; and these matters must be considered in planting a commercial orchard. For home use, however, the question has a different aspect. We can never buy fruit from California or any other other

country to equal our choice high-flavored varieties grown in our own gardens.

The Summer Doyenne is not a new variety. It was originated in Belgium in 1823, by Dr. Van Mons, a nursery man, who devoted much time to the origination of new varieties, and who had at that time no less than 2,000 valuable seedlings of pears. It is known in different countries under slightly different names. In England it is called Summer Doyenne; in France, Doyenne de Juillet; in the United States, Doyenne d'Ete; and we choose the first because it seems to us advisable to avoid foreign names where possible, seeing they are so commonly mispronounced.

The tree is a vigorous, healthy grower, with somewhat slender branches, which are light, yellowish brown in color. It begins bearing at an early age, dwarf trees at Maplehurst two years planted having some fine clusters of fruit. The fruit measures about $1\frac{3}{4}$

THE CANADIAN HORTICULTURIST.

inches long by 2 inches broad, and is roundish, obovate in form; color, lemon yellow with a brownish red cheek. The flesh is white, of fine texture, juicy, and of a sweet, pleasant, aromatic flavor.

The tree is of course perfectly hardy in Southern Ontario, but has been reported only half hardy in Huron and Bruce.

FRUIT GROWING IN ALGOMA.

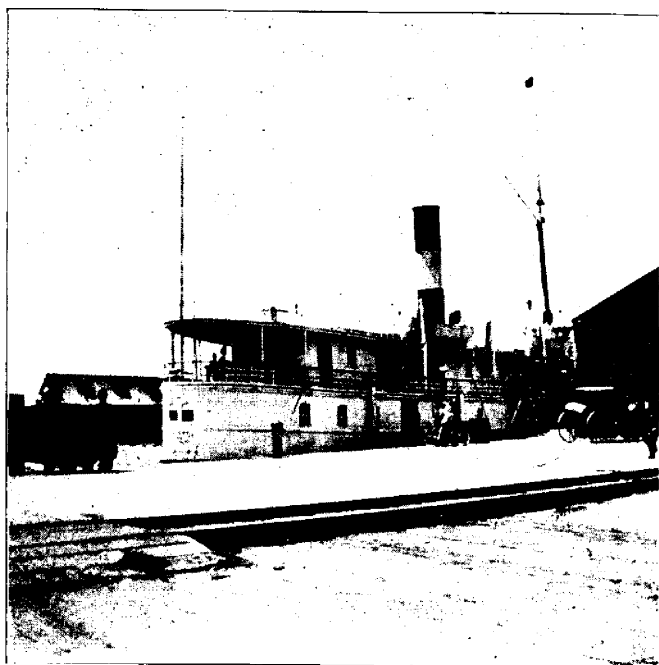


FIG. 1407.—THE ATLANTIC.

A SHORT time ago we had occasion to go through the Algoma district in order to ascertain its adaptability to the cultivation of fruit. Numerous tourists took the train at Toronto for Collingwood, where the steamer "Atlantic" awaited us. The voyage north to Parry Sound began to reveal the charms of a trip through the Georgian Bay and Lake Huron with their 30,000 islands to give constant change of scenery. Christian Island was the first large island, having

an area of 1,000 acres. It is an Indian reserve, the only white people permitted to live on it being the light house keeper and his friends. A signal from our captain at this point brought out two or three boats to take off several visitors, with their wheels. Soon after we passed *Lone Rock* the latter having been a most dangerous place, previous to the placing here of a fog bell and light, to indicate the locality. The rock juts two or three feet above water, and on it the steamer "Wabuno" was wrecked some years ago.

FRUIT GROWING IN ALGOMA.



FIG. 1408.—WOMEN ROWING.

Passing around Parry Island we entered Parry Harbour amid beautiful scenery on either side, while two islands called *The Two Sisters* seem to guard the entrance. Parry Sound itself, though pretty from the river, is but a slow place if you except the lumber trade, and the tourists who put up at the summer hotel. The roads and sidewalks are very poor, yet we found the inhabitants up to date enough to cry out "\$5 fine," when we attempted to ride our wheels upon their rickety sidewalk.

Depot Harbor near to Parry Sound is the terminus of the Canada Atlantic Railway, which carries the products of

the great west through to the great markets of the Atlantic.

The River Magnetawan, in which

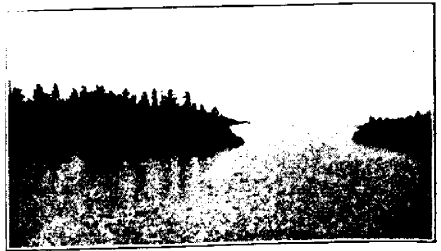


FIG. 1409.—BYNG INLET.

Byng Inlet is situated, was full of pretty scenery the entrance to which is shown in fig. 1409.



FIG. 1410.—MANITOWANING.



FIG. 1411.—AT KILLARNEY.

Along the shore you see here and there the squatter's cabin, with his row or sail boat, his only means of transportation, and in some cases a fine potato or other root crop, near at hand. A poor lonesome kind of a life it must be, but infinitely better than living in poverty in one of our great

cities, when there are thousands of acres of good land waiting for occupation here in Algoma at 20 cents an acre.

At Killarney we were interested in the numerous Indians and Half-breeds who occupy this section. This is the first landing place on the North shore

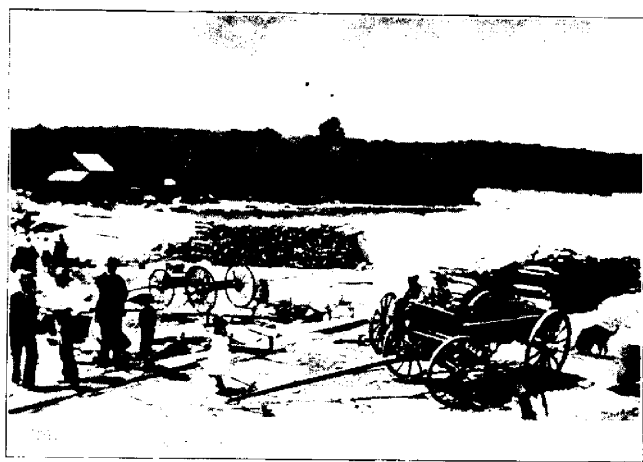


FIG. 1412.—VIEW AT LITTLE CURRENT.

FRUIT GROWING IN ALGOMA.

of Lake Huron, and the views are most interesting because of the many islands which here abound.

The fishing and the boating at Killarney are very good, and many yachting parties pass through the narrows at this place, by which you enter into the North channel between the Manitoulin Island and the North Shore.

Manitoulin Island is about 150 miles long, and has some fine agricultural sec-

two days and a half on St. Joseph's Island, in order to study its capabilities for growing fruit. Almost every orchard we could hear of was visited, and inquiries made regarding its success. Mr. Charles Young, of Richards' Landing, showed us some fine trees of Wealthy, Duchess, Alexander, Charlemov, Whitney, and other apples, heavily laden; Kentish and Richmond cherries; Janesville grapes, which he says ripen well;

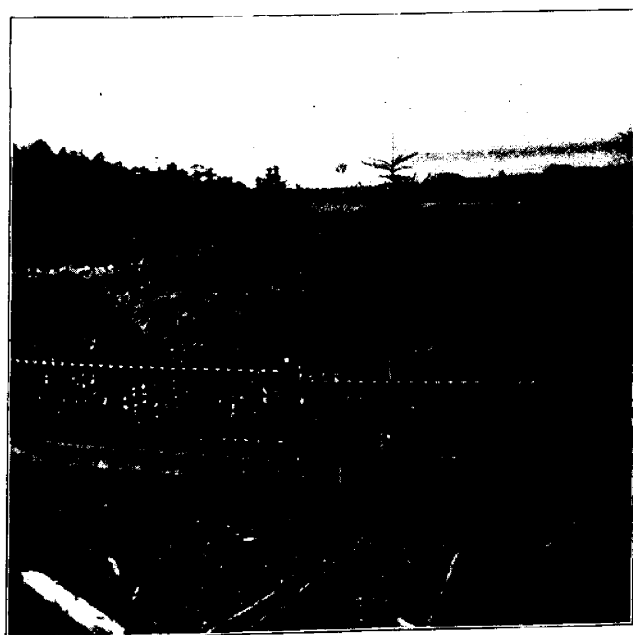


FIG. 1413.—CHARLES YOUNG'S GARDEN.

tions, especially that about Manitowaning and *Gore Bay*, which latter is beautifully situated. Here we saw the Kentish cherry tree growing vigorously, also saw plum and apple trees. We were told that the climate averages at least 12 degrees milder than on the north shore, and that it was well adapted for growing hardy apples.

After about 500 miles of sailing, we reached Richards' Landing, and spent

red and black currants, gooseberries, strawberries, etc. These latter grow to perfection, even the old *Jucunda* being one of the favorites.

The forest tent caterpillar, *Clisiocampa sylvatica*, has been a great plague for two seasons, invading the orchards from the forests in such vast numbers, that Paris green was useless to hinder them from destroying the foliage of the apple trees, and Mr. Young found his only plan was

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to put around his trees bands sticky with tar, and thus prevent the invading host from climbing up.

The view of Mr. Young's house shows Mr. Young himself in the foreground, a fine *Ampelopsis Virginiana* shades the veranda in front, and, on the side, a *Clematis Virginiana*. A fine flower garden in front contains sweet peas, roses, dahlias, gladioli, etc., and some fine shrubs, notably a large bush of *Hydrangea paniculata grandiflora*, six-

His farm slopes down to the river or west passage, the high way of the C. P. R. and other steamers, on which a hundred boats a day can easily be counted. In our engraving the near ground shows a portion of Mr. Raines' orchard of apple trees, his house and barn, and in the distance the river, and the Sailors' Encampment on the Michigan side, a most charming location. His soil was clay, and on the high ground certain varieties of apples were found doing well, as

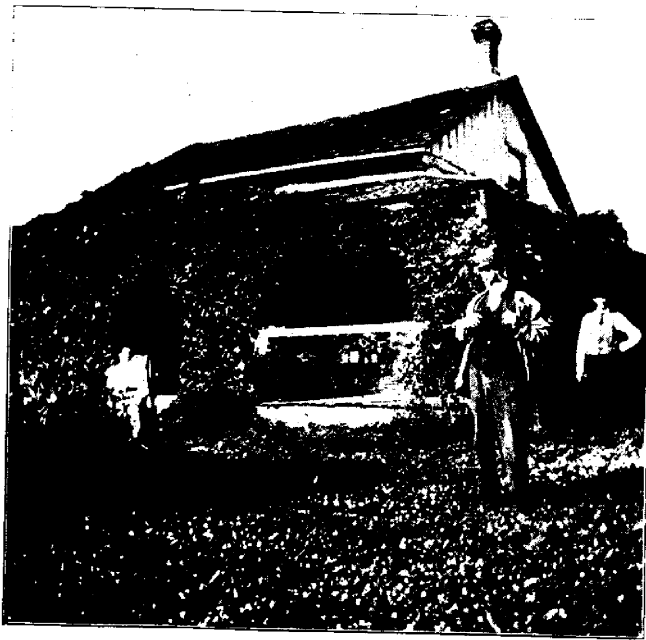


FIG. 1414.—MR. YOUNG'S RESIDENCE.

teen years planted, which blooms annually yielding at least a wheelbarrow load of bloom.

Mr. Young's farm slopes toward the north channel of Lake Huron, and our view shows the portion intended for orchard, with a few young trees already growing upon it.

On the west side of the island, we visited the orchard of Mr. A. Raines, who was the first white man born on the island.

Charlemov, Duchess, Wealthy, Wolf River, Haas and Hyslop. He had several fine trees of the Kieffer pear, which had stood the climate for two winters. The Pin cherry, *Prunus Pennsylvania*, was growing freely about the house; indeed it is found everywhere throughout this Northern region.

On the South side of the island after driving over many miles of rough stony and corduroy roads, we visited the farm of Mr. Wm. Dunn, which overlook

FRUIT GROWING IN ALGOMA.



FIG. 1415.—SKETCH OF MR. RAINES' ORCHARD AND HOUSE.

Mud lake. His father was an early settler, a grocer in Glasgow who, meeting with some reverses, determined to try his fortune in this new country. He settled on St. Joseph Island, and bringing with him a fondness for gardening

he became a member of our Association, and planted a very considerable number of fruit trees and plants. Many of these had done well, until a few years ago when the old gentleman died and the son found the care of both farm and



FIG. 1416.—MR. EDDY'S ORCHARD AND HOME.

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garden too much, so in consequence the latter was more or less neglected. Notwithstanding this his work has proved the possibility of growing fruit here, for he has produced fine samples of Alexander, Duchess, Wealthy, Transparent, Scott's Winter, Golden Russet, Wallbridge, Charlemov, Borsdorf and Pewaukee apples; Moore's Arctic and Lombard plums; Ostheim and Early Richmond cherries; Flemish Beauty pears, and Janesville, Lindley and Delaware grapes.

Among the places visited on the north-

east side of the Island, was Mr. Eddy's, at Hilton, whose son attended the O. A. C. last winter. His home was prettily situated, overlooking the water, and he has a large farm, nearly 600 acres in all. His young two-year-old orchard appears to be in excellent condition; the varieties were—Wealthy, Golden Russet, Duchess, Wallbridge, Snow, Transparent, Longfield, Stark, and Ben Davis; in all about two hundred trees.

(To be continued.)

FRUIT IN WESTERN ONTARIO.

PEACH CURL AND SPRAYING, ETC.

SIR, — I have just returned from a three days' drive through the county, from Windsor south towards Amherstburg, then along the Lake Shore to Leamington, and back along the old gravel road. I visited a great many of the fruit growers around Kingsville, Ruthven and Leamington, and found the fruit crop very much as reported.

Pears are perhaps a little better than an average crop, and apples are good. Early peaches are a heavy crop and were being shipped freely. Late peaches only a moderate crop, but the quality will be excellent.

The Smock, Wager, Golden Drop, and a few others will have a heavy crop, Early Crawford, Longhurst, Oldmixon a medium crop.

It would be interesting to note the prevalence of effect of the leaf curl on different varieties of peaches. With me, on three-year-old trees, the Beer's Smock was the only kind affected. Un-

doubtedly there is a close connection between the curl and the crop. Those varieties badly affected have no peaches — only those exempt from the disease have a crop. There appears to be a fair degree of uniformity in the experience of different growers, with the same varieties. The Tyhurst, Late Crawford, Elberta, Champion, Stump - the - World, were badly affected; while the Early Crawford, Alexander, Smock, Lemon Cling and some others, were comparatively free.

One grower, whose name I cannot recall, claimed to have had his orchard quite free from the disease, as the result of early spraying with the Bordeaux mixture.

No doubt W. W. Hilborn could give some very interesting facts in this connection.

Yours truly,

A. McNEILL.

Walkerville.

A FRIEND OF ONTARIO FRUIT GROWERS.



FIG. 1417.—C. C. JAMES, DEPARTMENT AGRICULTURE.

ALTHOUGH the name of Mr. C. C. James is not as prominently before the public as those who are in public office representing political parties, he is not the less worthy of honor, for upon him comes much of the hard office work which makes the Department of Agriculture so useful to the interests of the farming community.

At the last meeting of the Association, Mr. James was present to represent the Department, and get the views of fruit growers regarding the San José Scale Act. At our meeting at Orillia

he gave a magnificent platform address on "The Higher Horticulture." In this address he paid a fine tribute to the fruit growing community, as being the upper 400 in agriculture and he emphasized the benefit to the country of our Association.

Estimating, for example, that we have ten million apple trees in our Province, and through the improved methods of growing, packing, and marketing, 10 cents per tree only were added, then you would have a million dollars' benefit to the Province. "And," said Mr. James, "is there any man here having

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apple trees upon his farm, or in his garden, who has brought those trees to such perfection that he could not, by a little more skill, and a little more knowledge, add ten cents at least, to the value of the fruit annually produced upon them? Now, this Fruit Growers' Association, with a small grant from the Government—some \$1800 in cash, together with the printing of their report—have banded themselves together that

they may bring up the general condition of this fruit growing industry."

Mr. James is a native of Napanee, a graduate in 1883 from Victoria University. From 1883 to 1886 he was a master in the Cobourg Collegiate Institute, and from then till 1891, he held the position of Professor of Chemistry at the O. A. C., Guelph. In this latter year he was appointed Deputy Minister of Agriculture for the Province, a position which he still occupies.

SHIPPING RASPBERRIES TO BRITAIN.

ENGLISH packers import raspberries chiefly in kegs, with just enough sugar to preserve them. The Canadians who have taken up the idea, are packing them in ten-pound round tins. The experimental shipment will consist of five carloads.

It is to be hoped that the experiment will be a success. Canada produces many thousands of pails of wild raspberries, the kind wanted. The development of such an industry would leave thousands of dollars in the hands of farmers and country merchants. Those who have taken up land in new districts, where wild raspberries chiefly abound, will find them a most valuable source of income at a time when a few dollars are most needed.

It is unfortunate that we have not some native Canadians in our London offices, men who know something about our resources, men who have lived in and who have travelled about the Dominion, who have grown with the country.

It is in the interests of business men everywhere to keep up the agitation until a proper commercial agency is established, not to promote the sale of any manufacturer's special goods, but of our general products, like grain, flour, dairy and other produce. Of twelve articles grown on Canadian farms, Britain imports \$600,000,000, of which Canada supplies but \$57,000,000.—From The Canadian Grocer.



THE P. BARRY PEAR.



FIG. 1418.—SECTION P. BARRY PEAR.

THIS is another very promising new fruit, which we noticed, on page 56, Vol. XIX., a pear that is named in honor of the late lamented president of the Western New York Horticultural Society. Samples of this new pear were exhibited at the World's Fair in 1893, in May, having been kept over since 1892. It is a winter pear, ripening in April, very large in size, and when ripe orange yellow in color, with juicy, fined grained flesh of high flavor. Perhaps this will prove the very pear we want for export; a

variety we can send to Great Britain without cold storage.

So late as August 3rd this present season, we received two samples of this pear from Mr. F. W. Glen, of Brooklyn, and it is so fine a sample that we have photographed a section exact size to show our readers. At first we thought it like Beurre Clairgeau, kept over in cold storage, for it much resembled that variety in form and size. We have the first samples growing on our experimental plot this season, and will be able more fully to identify the variety,

and judge of its adaptability to our country when these ripen. Mr. Glen says:—

“I am sending you to day two Patrick Barry pears, the finest I ever saw. They are even larger than the two I sent which went astray. I paid

40 cents for them. Please measure, weigh them, and have a full size drawing made of them for the HORTICULTURIST. It is a beautiful sample, in perfect condition, nine months after it was taken from the tree and transported 3,500 miles.”

THE DARK AND THE BRIGHT SIDE OF FRUIT CULTURE.

SOME years ago, in an incidental discussion on Canadian fruit growing, a cynical friend—a layman as far as commercial horticulture is concerned—urged that the worst part of the business seemed to him to be the oscillation between the feast and the famine phases—“Either,” he said, “you have a brobdignagian crop and prices are no good, or else prices are excellent and you have no crop to sell.” There was more than a tinge of truth in his philosophizing, and if he could have seen the orchards in '97, and again this year, one could have pardoned him a chuckle of satisfaction at his own wisdom. Last year we cheerfully paid ten to fifteen cents per tree for taking off superfluous peaches; this year we would with greater cheerfulness have paid twice the amount to have stuck them on. The crop in this part of Ontario is eminently a sporadic one. Smith has a very respectable crop indeed, while Brown on the other side of the fence, with equal reason for expecting a crop, finds the fruit conspicuous by its absence. The thing is not always easy of explanation and Brown has to console himself by pointing out to the other fellow that the wicked flourish like a green bay tree.

The ideal state of things would of course be half a crop and good stiff

prices, and it remains for us to create these conditions as nearly as possible by selection and extension of markets, by the reduction of too heavy crops by thinning, and generally by the practice of scientific horticultural methods. It is hard to say definitely whether climatic conditions, state of soil, or previous heavy cropping has most to do with producing empty orchards in any given season. One thing is positive, to wit—that plain, obvious causes, such as curled leaf, curculio and so on, largely contribute to bring about such a state of things. It is satisfactory in a way to know that the history of the ‘curled leaf’ fungus has been worked out, and that it has not only local habitation but a name as well. At the same time it is plainly a very difficult enemy to control, and though fairly good results have been obtained in Ohio and elsewhere by the ‘Bordeaux’ treatment, I cannot say that I have noticed any distinct benefit either with trees that were sprayed last year or this. If spraying is to do any good, it must certainly be not only thorough but very early, and it is possible that a late spraying this fall would materially assist in destroying the fungus. The disastrous work of the ‘curled leaf’ during May and June this year clearly established the fact that the question of varieties has a good deal

DWARF PEARS.

to do with the virulence or mildness of the attack. A careful examination of the trees at this Station was made when the disease was at its worst with the following results.

Slightly attacked. Early Rivers, Foster, Hale's Early, Wonderful, Wheatland, Garfield, Smock, Salway, Hyne's Surprise, Longhurst, Waterloo, Shumaker.

Badly attacked. Early Canada, Early Richmond, Hortense Rivers, Susquehanna, Conkling, Fitzgerald, Ostrander Late, Early Crawford.

Very bad. Yellow St. John, Tyhurst, Yellow Rareripec, Champion, Lord Palmerston, Early Barnard, Red Cheek Melocoton, Golden Drop, Troth's Early, Morris White, Crosby, Wager, Steven's Rareripec, Honest John, Stump, Late

Crawford, Old Mixon, Jacque's Rare ripe, Elberta.

Three varieties of nectarines proved also strongly susceptible to the disease, viz., Early Violet, Boston and Downton.

A visitation of this kind is not an unmixed evil. In common with Pear Blight, San Jose' Scale, and a hundred other horticultural afflictions, it creates a widespread and a keen desire for a more accurate knowledge of the nature and development of these pests. I wouldn't go so far as to say they are all blessings in disguise,—if it is so, the disguise is very effectual—but the prevalence of these fungous insect enemies is undoubtedly leading to improved and more intelligent horticultural methods.

MARTIN BURRELL.

St. Catharines.

DWARF PEARS.

FOR amateurs who desire to obtain from a garden of rich loamy soil some of the handsomest and richest fruits that it is possible to grow in a Northern climate, dwarf pears offer alluring chances. They require a strong soil, such as will grow wheat or cabbage well, and it must never be deficient in moisture, and never subjected to extremes of cold, or rather of severe alternations of freezing and thawing. But both these requirements are met by a good mulch over the whole surface. Only a few sorts of pear endure well on the quince, and of these Louise Bonne does probably the best. The beautiful Boussock and Duchess come to their fullest excellence on this stock. All bear at an earlier age than if on pear roots, but they are also much less long lived.

As with dwarf apples, the fruit is larger, juicier and higher colored, owing to the more abundant supply of sap from the greater number of feeding roots, and the short distance to the digesting leaves. It is a convenience and satisfaction to the owner who likes to keep his trees in well-balanced shape that the entire growth is within arm's reach. As the fruit on large standard trees is often finer in the very top than on side branches below, it may seem that a short distance of sap conveyance is of little account. But the reason in this case is that the side branches bent down with previous loads of fruit have their structure so fractured or the ducts so compressed as to embarrass the movement of the sap.—W. G. Waring, Sr., in New York Tribune.

FRUITS FOR THE ENGLISH MARKET.

HUNDREDS of Canadian fruit growers are only waiting for encouragement to ship freely of their finer fruits to the British market ; but until our Steamship Companies will guarantee us safe carriage, at temperatures under 40° Fah., no body will risk to ship such perishable goods.

To-day, Aug. 8th, we have received a call from Mr. Shuttleworth, of the well-known firm of Simons, Shuttleworth & Co., of Liverpool ; and we called together several of our growers to meet him. He responded to questions somewhat as follows :—

Will it pay to ship Canadian tomatoes, and in what packages ?—I think it will pay. They are being grown in hot houses, and also being imported quite freely ; the English taste is being rapidly educated to demand them, and they pay from three to six cents per pound for them in Convent Garden. Surely that would pay, when you see them in Canada at 25 cents a bushel. They should be wrapped in thin, white or very light colored tissue, showing the red through it.

What about plums ?—I do not think it will pay as a rule to ship plums to our markets ; it is like coals to Newcastle, or peaches to Grimsby. It is the house of the plum in England, and yet, there are seasons such as last year when it would pay you very well.

What fruits may we ship to England with a prospect of making money on them ?—Apples, pears and peaches. We already have the English apple market ; and if rightly put up we have this apple business largely in our own hands, for Canadian apples are highly appreciated in Great Britain. This year the English crop is about a half average, but Canada

has as many if not more than last year, and a trifle better in quality. Last year Canada shipped about \$300,000, largely east of Toronto. Nova Scotia shipped only 82,000 bls. last year, but Mr. Charles Nixon who has just returned from a trip through the Annapolis Valley, estimates the crop this year at 200,000 bls. The States report variously ; New York will have a good crop, Arkansas 25 per cent of a full crop, California, Oregon and Wincousin full crops.

Would you advise the growers to ship or to sell at home ?—I would never ship an apple when I was offered anything like \$2 a bl. at home. On the whole, it is often safer to ship on a poor market report than a good one, because the good report encourages to heavy shipments from all parts.

What apples do you advise us to grow for export in Southern Ontario ?—The Baldwin, Greening, Spy, King, Russet and Snow if clean. The best apple you have is the Spy, and is highly appreciated in the English market. The Ben Davis as grown in the West is a fine apple, but as grown in Canada is not equal to your Baldwin.

Do you advise shipping in boxes or barrels ?—For main crop in barrels, decidedly. Boxes would multiply packages endlessly, and lessen size of individual sales. People would take a box who otherwise would take a barrel. Boxes are all right for early apples, as Duchess, going in cold storage, and, if you get proper storage, should do well for you. In barreling apples, use a screw press, for it keeps a steady pressure and this will cause a bruise that will dry without rotting.

Do you think we can ever succeed in making a market for our grapes in Great Britain ?—It is very doubtful about

your success with Concords, for in the first place the English people don't like their flavor, and, in the second, they do not hold to the stem; when they arrive, they are all shelled, and they want to be able to lift them by the bunch. Rogers 4 is a better class of grape to ship us. Still, of course, there is a possibility of the middle class taking

your grapes. If once you could get them to like them, we could easily dispose of four or five carloads a day in Liverpool. If you want this market, you must capture it very soon, before South Africa comes in. That country will be a great competitor in peaches, grapes and apples.

THE ELBERTA PEACH.

WE have been looking for a good yellow fleshed peach for shipment to the English market, a variety that will carry better than the Crawford's do. Possibly the Elberta is the peach we are looking for, though so far it has been very little grown in Ontario. Mr. Frances W. Glen, of Brooklyn, writes us, Aug. 1st.

"Please permit me to call the attention of your readers to the Elberta peach. As a market peach it ranks first-class. It is large, well shaped, high colored, handsome, and of excellent quality. It reaches this market from Georgia in *prime condition*. Of course it is a yellow fleshed peach of the Early Crawford style. Grown in Ontario it would come into market the latter part of August or early part of September, and at that season would command a good price in our North Atlantic Cities. I never have seen peaches ready for table use in such fine condition in this market since I came here in 1886."

Mr. Glen also encloses the following clipping from the New York Sun:

"The peculiar pointed peach that has been sold so commonly hereabouts the past few weeks is named the Elberta. This peach has been out about eight years, but has never before been seen in such numbers in this market. The smaller and medium-sized fruit is likely to show the end pointed in a marked

degree; the larger and largest Elbertas may practically lack this characteristic of the smaller fruit and be round in form like the ordinary peach.

The peaches with which New York has recently been supplied so abundantly have come mostly from Georgia. The Georgia peach crop this year has been more abundant and more excellent in quality than ever before, and fine, handsome fruit from this State has been sold here this year cheaper than ever; at about half the prices of last year. The first of the Georgia peaches come about July 1; the very plentiful supply ends with the month of July, and the first week in August sees practically the last from Georgia. Though this year's crop of Georgia peaches was the greatest ever known and the prices low, they are said to be still planting peach trees in Georgia.

The first peaches to arrive in this market come from Florida; the next, from the Eastern coast, come from Georgia. The supply of California peaches in this market this year was much less than usual; the early peaches commonly sold by dealers and venders were mostly of the abundant crop of Georgia.

Wholesale dealers say that the Maryland, Delaware, and New Jersey peach crop is light this year, and that peaches are not likely to be any cheaper than they have been already.

PROPER DISTRIBUTION OF FERTILIZERS IN THE SOIL.

IT may not be considered an important matter by many who use commercial fertilizers, as to how much opportunity they give them to dissolve and distribute their fertility where all the roots of the crops can get it, but it is a matter that should receive the most careful consideration by all farmers, and be carefully worked out, practically, on every farm where these manures are used.

It is a very common practice, when planting potatoes, corn and other crops that are usually cultivated in hills or close drills, to put all the fertilizer in the hills or rows. When we come to think of the very small space that a fertilizer so placed will occupy even when entirely dissolved, compared with the space the roots occupy, the folly of the plan can easily be seen. If we were to put a handful of almost any commercial fertilizer in a potato or corn hill at planting time, it would need to be dissolved before it could be of any service to the plants when they grow. How much water would be needed to properly dissolve it? Perhaps a thousand times more in measure than the fertilizer. We cannot live upon clear molasses, nor upon oil, nor upon any other equally concentrated food alone. No more can a plant live upon solutions of nitrogen, phosphoric acid and potash, that are more than five hundred times stronger than they should be. The human system would soon have a disease that we call indigestion or dyspepsia. And, why may not plants have indigestion? Indeed these solutions are so strong in some cases that they actually cause the death of the tender plantlets. Even seeds may be killed by the caustic

character of the strong acids and alkalis that come in contact with them.

But while a part of the soil may be overcharged with fertilizing material, by far the larger part of it is needing it, when we think of how far the roots of our crops extend; how they permeate every inch of the soil, in most cases, in their search for moisture, and food, it is very easy to see how needful it is that the food should be there for them to lay hold upon. Not only does the plant need enough to start it in its growth while the roots are yet all in the hill, but it needs it all the way through life.

There need be no fear that the fertility will be lost by being scattered throughout all parts of the soil that will finally be within reach of the roots. They will find all in due time, and it will be much better for the crop in the end, than if it were all put where the roots may reach it in the first few weeks of their growth. The feeding area of the roots is greatly increased as the season advances. I have seen whole surface soils of a corn field so netted with tiny rootlets after cultivation had been stopped that a small knife blade could not be run into the ground without cutting some of them, and the same thing is true of most potato fields, if properly conducted.

The fruit grower needs do some thinking on this same line. The roots of his trees and vines go all over the ground, and in many cases the orchard trees and other things are planted so close together that they interlock in their hungry chase for moisture and fertility that they have a noiseless but no less real war underground. It is the survival of the fittest, indeed, and

DWARF PEAR CULTURE.

oftentimes, none of them survive very well,

Not long since when lecturing to farmers' institutes in Western New York, I saw a few of about as foolish attempts at manuring an orchard as one could imagine. There were piles of farmyard manure over two feet high carefully placed close to the trunks of the trees. It reminds me of what my friend Prof. L. H. Bailey once said of the absurdity of this practice, that it is like putting a feed of oats in a sack and tying it to a horse's legs instead of putting it in his manger. The manure will in time spread the fertility somewhat, but it can

never do the good in such a position that it could if scattered at once where the feeding roots are. The same is true in principle of commercial fertilizers. Scatter them where they will be needed, instead of putting an excess in a few places and none elsewhere. They are easily dissolved, especially nitrogen and potash, as they are usually found. Failure to get good results are often rightly chargeable to such unwise applications as have just been described, and in some cases, actual damage has occurred. Feed the crops liberally but as wisely, as you would your animals.

H. E. VAN DEMAN.

DWARF PEAR CULTURE.

THE simple fact of an orchard being planted on an elevation sufficient to resist or to escape the blighting effects of an untimely frost, which often occurs at blossoming time, or at the critical period of the early formation of the embryo fruit, sometimes results in rewarding the owner with an abundant and profitable crop. The same elevation may secure the advantage of an exposure affording the proper circulation of air. On the other hand, his neighbor whose orchard is located in such a spot as to feel the full force of the destroying element, meets with disappointment and loss. This is in verification of the truth of the statement recently made by Mr. J. W. Smith, of the Weather Bureau: "Not only does the climate of each State differ from the adjoining one, but each town, and, in fact, each man's farm, has a peculiar climate to itself."

Hence the study of the climate of each farm and its relation to the growth

of certain plants, will not always fully apply to the neighboring farm or farms. This forcibly illustrates the importance of locating the pear orchard, if possible, where it will be the least liable to be affected by sudden changes, reaching low temperatures as above alluded to.

The soil considered the most conducive to a healthy and vigorous growth of the pear is one consisting of a gravelly clay loam, with clay sub-soil. A light loam soil should always be avoided, though it seems best suited to the peach. Experience proves it, however, to be decidedly objectionable to the cultivation of the pear. Thorough drainage of the soil, either natural or by artificial means, is another important essential.

After being well pulverized the soil is in condition for planting the pear trees. A distance of twelve feet apart each way was formerly considered the proper distance for dwarf trees.—New York Tribune.

PLANT PROPAGATION FOR PARKS.

By F. KANST, CHICAGO, ILL.

THE subject of Plant Propagation for Parks is one which is often brought before park officials for consideration, there being so few parks throughout the country so well supplied with native trees and shrubs that none need be procured.

In the majority of parks, plants are obtained by collection from the surrounding country, or by purchase from nurseries. In larger parks, where thousands of plants are required, it is very essential in order to obtain the best results, as well as from an economical standpoint, that a park nursery be established where such trees as the elm, oak, ash, linden, negundo, birch, maple, etc., may be grown on from various young plants which can be purchased from nurseries very reasonably and kept growing in a healthy condition until such time as they may be needed. Here also shrubs and herbs can be propagated from seeds and cuttings. Such plants when in the park nursery rows can be had at any time, thus saving delay and loss, and valuable time, as the seasons for planting are usually so short. Another great advantage is, that such plants are more easily established.

A park nursery can furnish quickly and in large quantities such varieties of trees, shrubs and plants as will be mostly used in the plantation—such as spiraea, cormis, ligustrum, philadelphus, ribes, symphoricarpus, lonicera, poplar and willow, which with many others may be readily increased from cuttings to be obtained from plants already about the park, or by collecting or purchase. A place for these cuttings should be prepared, preferably in sandy soil, early in winter, then covered to a sufficient depth

with spent horse manure, or leaves, to keep the frost out. Cuttings from young, well-ripened wood should be taken in the winter and cut to about ten inches in length, then placed thickly in rows in the prepared ground. The covering can be removed as fast as space is wanted for the cuttings, and after they are in place this covering can be put over them again to prevent hard freezing which would injure the vitality of the cuttings.

The planting of the cuttings into the nursery should begin when the heavy frost is over, or about the 15th of April, when most of the cuttings will have caloused in their winter quarters. A suitable piece of ground for the nursery can usually be found in some uncompleted portion of the park. The ground should be well ploughed and pulverized, and ample provisions made for water. Cuttings should be planted in rows running north and south, so that the sun can penetrate between the rows, as they make better plants and grow straighter than if planted east and west.

For park purposes cuttings may be planted from 12 to 14 inches between rows and from 6 to 8 inches in rows, or about 50,000 to the acre. One man with a good hand cultivator can attend during the summer to 100,000 plants.

At one year old cuttings will have grown into fine plants ready for use in the plantations, and when planted in their permanent place at one year old the cost is very little compared with what it would be if the plants were transplanted and allowed to grow another year or two in the nursery. They are easy to handle and only small holes need be dug to insert the roots. In plantations where the ground is soft

PACKING AND SHIPPING FRUIT.

as it should be one man can plant about 500 per day.

The raising of their own plants, as before described, has been practised by the South Park Commissioners for the past years and over 400,000 trees and shrubs, all grown in this way, are now planted in different parts of the park

and all in fine condition. There are also 150,000 cuttings, which were made last winter, growing in the nursery at the present time which will be ready for next spring's planting.

A paper read at the recent meeting of the Park and Outdoor Association, at Minneapolis.

PACKING AND SHIPPING FRUIT.

THE business of raising fruit and vegetables for commercial purposes seems to be constantly changing in some particulars, and the field of operations widening. Increased transportation facilities, lower freight rates, and varying competition necessitates adopting the most approved methods in everything pertaining to the business, to secure profitable results. The fittest will survive is the inevitable law, or in other words there is going to be less room for poor and inferior goods, whether fruit or vegetables, and no show at all for those who pack their goods deceitfully, or what is nearly as disastrous, in any but prime condition, proper shape and in good containers. A marked example of successful packing is shown by the Californian fruit growers. They had to excel in every respect, and the goods must be the most attractive offered in order to command a sufficient price to pay them any profit over the high freight rates to eastern markets. When growers and producers of more favored states display the same skill and conscientious pains to excel in their special field, they will secure something like the returns which the business intelligently pursued is capable of yielding. To remain in the business and make it pay, you must follow as closely as possible the example of men who get good prices for their products.

If you cannot raise fruit that is so attractive in appearance, you can still exercise the same care in picking, packing and marketing the fruit you have. You can throw out for consumption nearer home every specimen that is faulty and inferior, especially when this poor stuff injures the sale and reduces the price of the best. You can at least use the neatest and most presentable packages.

Mark your packages fully. Probably no one thing works so much difficulty in the handling of goods on commission as the failure on the part of the shipper to have all his packages fully marked. It is scarcely more important to mark each case or barrel with the name of the firm to whom shipped than to mark from whom. Don't be afraid to mark your own name and address on your goods, and above all don't leave the consignee in any uncertainty because you know he may be large enough to have a shipment in the same line from another grower the same day. Many commission merchants are willing and anxious to furnish shippers with serviceable stencils, giving the commission merchant's name and address plainly, and providing simply a number immediately under their name which indicates to them that the goods are from you, each tag thus sent out being recorded with the shipper's respective names and addresses. Notify the firm to whom

you ship at once of your shipment, and be sure you give them the important particulars. If you were pleased with their previous sale, give your agent a word of encouragement occasionally. A rubber stamp and pad is a very service-

able thing and can be had for five cents and this form of printing press can be operated by anybody, and all your empty packages plainly marked with your name and address before the rush hour of shipment.—Market Gardener.

FRUIT PACKAGES.

WE are constantly seeking after improvements in our fruit packages; for although the 6 quart and the 12 quart baskets are excellent, and just the thing for near markets, they are not so well adapted for long distance shipments. For peaches and choice grapes too, smaller baskets of three and five pounds are wanted by the buyers, in which they can carry home enough for the dessert table. We have a very nice case made for our English shipments 2 ft. long, 1 foot wide and 5 inches deep, in which 4 veneer baskets fit, side by side, a very good package. Since getting that package we have noticed the following in the R. N. Y. which is at least suggestive, and if we could find the address of the maker we would be glad to secure a sample.

In Figs. 1419 and 1420 are shown types of very neat, handy and serviceable crates that are used for shipping fruits and vegetables from the South. Fig. 1419 contains eight three-pound

baskets, and Fig. 1420, eight five-pound baskets. There are many vari-



FIG. 1419.—

ations in the style and size of these packages, but all are made on the same general plan. They are light and convenient to handle, give good ventilation,

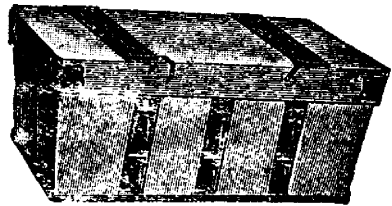


FIG. 1420.—

protect the contents, and are much liked by retailers, as the small baskets are just of a size for retailers convenience.

THE BARTLETT PEAR, the great favorite among cultivators and consumers the world over, is known in England as Williams, and in France as Poire Guillaume. Already (Aug. 13), this excellent pear is beginning to arrive in the English markets, both from

France and from California. We are very anxious to have our Canadian Bartletts placed on the English markets and we hope that this season's experimental shipments will prove the superiority of the Canadian product.

CO-OPERATIVE MARKETING OF PEACHES.

TO know when and how to pick, pack and market requires watchful care and good judgment. The grower must have all things ready, the wagons in order, the packages on hand, the labor employed, the packing house ready and market provided. It is better to have too much help than to permit fruit to get too ripe for want of labor to care for it at the proper time. Where the grower is obliged to call to his aid that necessary evil, the commission man, it is well to have him ready also. Select one firm in the town where you expect to market your fruit, of known good reputation. Ship to one firm only. If you use the commission man right, and do your part of the work as it should be done, you will not often have cause to complain.

In my locality the growers have organized shipping associations at several stations from which fruit is shipped, each with a manager whose sole business is to look after the grading, packing and marketing. The members

simply gather the fruit and take it to the packing house at the station. Here it is graded, and each grower given credit for the number of bushels of each grade he has brought. The individual is known no further. The fruit goes to the company's stock and is sold by the grade. At the end of each week, an average is made of the prices obtained during the week for each grade, and each grower is given credit for his share in the proceeds. This method of marketing has proved very satisfactory to the members of these associations. It gives them time to devote all their energies to the proper management of their orchards and careful handling of the fruit. One member complains that the individuality of the grower is lost. That he can acquire no reputation for himself nor for his own fruit. But this is an age when combines and corporations swallow up the individual, and the fruit-grower must take his chances with the rest.

PRUNING PEACH TREES.

PEACH growers are gradually learning that the peach tree will not only stand very severe pruning, but that it does best under such treatment. Where this is not practiced, long, slender branches form, and these produce fruit mainly at their outer extremities. This overloads the branches and causes them to break down even when the tree is producing no more fruit than it could easily carry if properly distributed. If the branches were cut back to within two feet of the trunk they would throw out numerous fruit spurs and pro-

duce fruit close to the trunk and main branches where it could easily be supported. Trees handled in this way will also produce more perfect fruit. Such severe cutting back may be done without any injury whatever if performed while the tree is dormant. Although peaches are reckoned an uncertain crop, it is still one of the most profitable fruits that can be grown in localities adapted to it. Select the finest varieties and give high culture and it will require but little fruit to give you a good money return.—American Farm News.

THE FERTILIZATION OF GARDEN CROPS.

GARDEN crops have a short period of growth, hence they need a soil rich in available plant food. Too large a pile of half decayed vegetable matter, as stable manure or compost should not be used because of insect and fungous pests. A liberal use of fertilizers and manures for vegetables and fruits enables the gardener to directly meet the special wants of any soil for crops raised in succession during the same season on the same lands. Too much soluble salines should be avoided for some vegetables, such as lettuce. Change the location of crops from season to season that different crops may secure any surplus of plant food. There are no unfailing recipes for a general fertilizer mixture best adapted to all kinds of soil, but for vegetables a mixture containing double the quantity of potash that there is of nitrogen or phosphoric acid deserves a careful trial. Crops will sometimes be benefited by the extra use of nitrate of

soda during the growing season, especially to such crops as cabbage, turnips, cucumbers, onions, lettuce, asparagus, strawberries, grapes and fruit trees. Peas, beans and all leguminous crops need no such addition, as they draw nitrogen from the air. A moderate use of manure or compost periodically will be beneficial. New lands being used for vegetables and orchards will be benefited by deep plowing and enriching the lower layers with a liberal supply of phosphates, as S. C. Fla or odorless phosphates, a treatment that may be repeated from time to time whenever practicable. The occasional use of burnt lime will help garden crops, especially when there is much humus in the soil, 1000 to 1500 lbs. p.a. being enough. Calcium carbonate will assist to liberate plant food from the soil and compost material and favors beneficial bacterial life.—Dr. C. A. Goessmann, Hatch Exp. Sta., Mass.

THE ANJOU PEAR.

It was many years after I fruited the Anjou before I ate a good one, but it was no fault of the tree or fruit. This pear should be picked and kept in a cool, dry, even temperature, say between 35 degrees and 45 degrees, and it will be in eating condition in not less than four months. Reasonable people who believe that pears are fit to eat will always regard the Anjou as a first-class fruit in every respect, it being hardy, a profuse bearer in proper soils, and of flavor that to a normal palate will give satisfaction.

By why is nothing said about the Sheldon? It is first-class. With me the Urbaniste is a very good pear and a

good bearer, but forty years' experience leads me to believe that the following six are best for me, and my preference is in the order named: Belle Lucrative, Sheldon, Bartlett, Beurre d'Anjou, Bosc and Seckel.

Pears, to be at their best, need attention, a thing that probably they oftentimes do not get, hence the diverse judgment on their quality. Pears should be thinned on the tree when about one inch in diameter, and at least one-half the fruit removed, except in rare cases. You will get larger and finer fruit and the quality will be improved.—Exchange.

FRUITS IN THE KITCHEN.

PRESERVING PLUMS.

Spiced Plums.—To every pound of plums take 1 lb. sugar, 1 teaspoonful cloves, one teaspoonful cinnamon, $\frac{1}{2}$ teaspoonful nutmeg and $\frac{1}{2}$ cupful cider vinegar. Prick the skins of the plums with a fork so they will not burst. Tie the spices in a thin muslin bag. Heat the sugar and vinegar, skim, put in the spices and plums; cook until tender, but do not allow them to break. Seal air-tight while hot.

Plum Apple Jelly.—Wash the plums, put into a porcelain kettle with water just to cover them and boil until tender. Pour into a jelly bag and let drain. Wash the apples, put into a porcelain kettle and boil until thoroughly tender, then put it into a jelly bag and let drain. Do not squeeze them. To 1 pint of the plum juice and 1 pint of the apple juice add 2 pints of sugar. Boil the juice 10 minutes, then add the sugar, which should have been heated in the oven, and boil 10 minutes longer. This can be tested by dropping in a saucer and placing in a cool place; if it does not spread but remains rounded it is cooked enough. Roll the glasses in hot water and fill them with the jelly while hot. Sprinkle powdered sugar upon the jelly and cover the glasses with thick writing paper, brushed over on the inside with the white of an egg and

turned down on the outside of glass. This work should be done while the jelly is quite hot and it will not mold.

Plum Butter.—Take the plums and the apples that are left from the jelly and press through a sieve. Take a pint of each and boil slowly for half an hour and then add 1 pint of sugar and boil ten minutes longer. Seal air tight. If preferred, pint for pint of sugar and pulp may be used; when this amount of sugar is used it is not necessary to seal the butter air tight.

Spiced Plum Butter.—Prepare the pulps of plums and apples as in the foregoing recipes. Take 7 pints of plums, 7 pints of apples, 8 pints of sugar, 1 pint of cider vinegar, 2 ounces of allspice, 2 ounces of ground cinnamon and 1 ounce of ground cloves; boil altogether 40 minutes. Spiced plum butter is very nice with roast meats.

Scalded Plums.—Wash the plums and put in a stone jar; cover with boiling water. Place a cloth and weight on top. They will keep well. Do not be alarmed at the heavy scum that rises on top. Just lay it back and take out your plums, being sure to replace it. This is a simple way to keep plums for winter use.—American Agriculturist.

THE MODEL PEACH ORCHARD.

In my mind's eye the model peach orchard would be that in which the trees were twelve feet apart each way, and the trees never allowed to reach more than eight feet in height and seven feet in greatest diameter of top, with heads branching out within six to twelve inches of the ground; and then every inch of them should be clothed with foliage and fruit to their summits. They should be cultivated, fertilized (if they need it),

thinned and pruned on the most radical, intensive system. But a peach or any other fruit tree cannot grow good fruit for any length of time, if fruit and foliage are crowded together at the extreme end of a branch without any foliage for the six or nine feet; nor can the little bunch of crowded foliage on the end of such branches supply the necessary strength of branch, stem and root sufficient to keep up strength and vigor.



Flower Garden and Lawn. K

COREOPSIS.

THE coreopsis of our gardens embraces several species and varieties of hardy native annual plants, being found in immense quantities in various sections of Texas, Nebraska and Oregon. In their native homes the flowers bear but little resemblance in size and form to those in cultivation at the present day. The plants grow from one to three feet in height, and although they are of somewhat slender habit yet the growth is vigorous and compact. The flowers, which are of the size and shape of our common field daisy, embrace every shade of yellow, orange and rich reddish brown, varying to red or crimson, some varieties being nicely marked. The flowers, which are produced in the greatest abundance, are borne on slender foot stalks, and are very desirable for cut-flower purposes during the summer, as they remain a long time in perfection after being cut. The calliopsis forms a very attractive object when grown in groups in the mixed border. The period of bloom depends entirely on the season and manner in which the plants are grown.

As the coreopsis is so hardy it is an easy plant to grow, and often little or no care is bestowed upon it, and the result is that the flowers are small and quite inferior in size and color. Now this

should not be the case. Give the plants an opportunity to properly develop themselves, and see how well they will repay all the care and attention bestowed upon them. The coreopsis does best when grown in a sunny situation and in a deep, moderately enriched soil. The plants should not be crowded together, but be given ample space.

As the coreopsis proves to be so hardy, in most places surviving the winter with slight protection, I consider it desirable, when an early bloom is desired, to sow seeds early in September on a nicely prepared border, in a sheltered situation; sow thinly, cover slightly, and as soon as the plants are well up, thin out, so that they stand four or five inches apart, and as soon as the ground becomes frozen, cover slightly with straw or evergreen branches.

As soon as the weather becomes settled in the spring the covering should be removed and the plants transferred to the place where they are to bloom. Thus treated they will bloom very early in the season, and where a succession of the finest flowers are desired an additional spring sowing will be absolutely necessary. For this purpose the seed should be sown in a cold frame early in April, or on a nicely prepared border early in May, and the plants afterwards

COREOPSIS.



FIG. 1421.—COREOPSIS.

transplanted as they are large enough to handle. Be very careful to give the plants while small an abundance of space in which to properly develop themselves, as this is a most essential point. Or, the seed can be sown early in May where the plants are to bloom, and the seedlings thinned out as soon as they can be handled. This mode of culture will produce the finest flowers,

but the plants will be rather late in coming into bloom.

Of the many varieties the following are the most desirable and distinct :

C. coronata. This species is a native of Texas, and in cultivation grows about two feet in height. The flowers are of a large size, of a rich yellow color, with a circle of rich crimson spots near the the disc.

C. Drummondii is a native of Texas, and in cultivation grows about two feet in height. Plant very bushy and compact in habit. Flowers about two inches across, of a rich golden yellow color, with a small dark centre.

C. tinctoria grows about two and a half feet in height. Flowers are of a rich brown, margined with golden yel-

low. Several varieties of this species are usually found in seed catalogues.

C. tinctoria fl. pl. This grows about two feet in height. The flowers are double, of a rich golden yellow, with wine maroon spots. A very desirable variety of recent introduction.—Vick's Magazine.

PYRETHRUMS.

PYRETHRUMS have been so greatly improved, both in the quality and color of their flowers, during the past few years, that they now constitute one of the most desirable groups of hardy plants the cultivator has at his command. Vigorous in growth and free in blooming, they afford a wide range of color, and are alike valuable for contributing to the attractions of the flower garden and supplying flowers for indoor decorations. While unsurpassed by any hardy plants of their season in the rich effect they produce in the garden, they are especially useful to cut from. The flowers are practically free from the objectionable odor characteristic of many of the composites, and can be readily arranged, either alone or in conjunction with other subjects, to present the most attractive appearance, and they retain their freshness for a considerable period. Not the least important of their many good qualities is the facility with which they can be grown, for it is not necessary to do much beyond planting them in well prepared soil in a suitable position to ensure a plentiful production of flowers for several years.

In engaging in the cultivation of either single or double pyrethrums it will in the first instance be necessary to

determine whether they are required simply for the embellishment of the flower garden or are wanted for the supply of cut blooms for exhibition or the decoration of indoor apartments. If intended for flower-garden decoration all that will be necessary will be to select suitable positions in the mixed border, and properly prepare the station by enriching and breaking up the soil. But when required for furnishing exhibition blooms, they should be planted in a bed in the kitchen garden or reserve ground, as they can then have any attention that may be required without interfering with other subjects. It is an advantage to plant those also that are to be cut from for house decoration in a bed or border elsewhere than in the flower garden, as when large quantities of flowers are cut the general effect is necessarily more or less impaired. In whatever position they are to be grown the soil should be liberally enriched with partly decayed manure from the stable or farmyard, and be then broken up to a depth ranging from one to two feet with spade or fork. In the preparation of stations in the mixed border two large shovelfuls of manure should be dug in at each. The beds, on the other hand, should have sufficient manure spread over the surface to form a layer about four inches in thickness,

PYRETHRUMS.

and be then dug over or trenched. When the manuring and digging are done immediately before planting, twelve inches will be a sufficient depth to which to stir the soil, but when the work has attention in the autumn or early in the winter the ground may be traversed to a depth not exceeding two feet. In all cases the soil should be well broken up and the manure thoroughly mixed with it.

When prepared in pots pyrethrums may be planted with the full assurance of the most successful results at any time from early in spring until the autumn, but the months most favorable are March and August. Examples in the open ground can be the most safely lifted, divided and re-planted in the month first mentioned, and in the early part of September. On very heavy soils spring planting is preferable, and in all cases the plants put out at the end of the summer or the beginning of the autumn should be strong, otherwise, it would be advisable to winter them in a cold frame and plant early in the spring. The second row is the most suitable position for them in the mixed border, and to avoid conspicuous blanks when they are not in bloom they should be at least four feet apart. If the plants are comparatively small and an immediate effect is required, they may be arranged in twos or threes, but generally speaking, putting them out singly is decidedly the best. Those from which exhibition blooms are to be cut should be eighteen inches apart each way, and those intended for the production of flowers for indoor decorations should be planted twelve inches apart in rows, with eighteen inch spaces between them. It is important to avoid deep planting, more particularly on heavy soils, and as far as possible the base of the plant should be on a level with the surface.

To support the flowers of the tall growing double varieties, and all of dwarf growth will not require supports.

It is necessary to keep a sharp lookout for slugs early in the season, as they are very partial to the young growth, and will do an immense amount of mischief if not held in check. The flower-heads should be cut off as soon as they have lost their freshness and beauty; but the flower stems ought not to be cut down to within a few inches of the base, as is so frequently done. The stems are furnished throughout the greater part of their length with leaves, and there can be no doubt that the removal of so great a portion of their foliage as is done when the flower-stems are cut done is decidedly injurious. Immediately the flowering season is over the soil should be pricked up with a frock to a depth of two or three inches, and a layer of manure be spread over the surface. If the weather is dry at the time, give the plants a thorough soaking of water previous to the application of the manure. With this assistance they will soon commence to make new growth, and produce a second crop of flowers, which, if not equal to those produced early in the season, will present an attractive appearance and be useful for cutting. Propagation may be effected by division or from seed, but unless the raising of seedlings is carried out in a systematic manner, it will be better to depend wholly upon dividing the plants for the increase of stock, because of the large proportion of the seedlings that will be practically worthless. The plants may be divided early in the spring or at the end of the summer.

The following varieties comprise the best of the large number now in cultivation :

Double.—Amphitrite rose, carmine ;

THE CANADIAN HORTICULTURIST.

Anemoniflorum sanguineum, carmine rose, light centre; Captain Nare's purple crimson; Chamois, carmine shaded, chamois yellow; Cleopatra, white, with yellow centre; Cornte de Montbron, rose pink, tipped white; Delicatissimum, rose lilac, shaded orange in the centre; Emile Lemoine purple crimson, tipped yellow, and shaded yellow in the centre; Fulgens plenissimum, pale carmine, shading to white; Haage et Schmidt, crimson, pale rose in the centre; Hermann Stenger, rose lilac; J. N. Tweedy, rich carmine red; Le Dante, bright rose, shaded orange in the centre; Madame Jules Aldebert, pale pink with light centre; Marquis of Bute, deep rose pink; Melton, bright magenta crimson; Niveum plenum, pure white; Paul Journu, bright rose, centre creamy

white suffused rose; Prince of Wales, purple crimson, with orange colored centre; Prince of Teck, bright crimson; Rev. J. Dix, rose carmine; Rose Perfection, rosy red pale rose centre; Rubrum plenum, rose lilac; Rosy Morn, blush white; Sulphureum plenum, blush white, with pale yellow centre; Sylphide, pure white; Voie Lactée, white tinted pink; Wilhelm Kramper, deep rose, tipped white.

Single.—Albatross, rich pink; Adra-tes, rose purple; Chromis, crimson purple; Darwin, light red; Hamlet, deep pink; Isis, purple crimson; Letus, pure white; Mrs. Bateman Brown, carmine crimson; Weston, bright pink; Roseum, pale pink; Ruby, rose purple; Sherlock, rich crimson; Tasso, bright crimson.—Frank Brunton, Boston.

THE JAPAN IRIS.

MY experience has shown that the Kämpferi iris requires an abundance of water during the growing season. My first attempt at the cultivation of this plant was with a collection of upwards of two dozen fine varieties; the plants when received from the nursery were strong clumps, and were set out early in the spring and given the same care I gave the German iris. They grew finely and produced some magnificent blooms in June. The latter part of the season was extremely dry, but I supposed that the plants were all right, as drouths never seemed to injure the common sorts. But the next spring, when they started to grow, it was noticed that the

foliage of nearly all of them was of a sickly yellow color and the growth very weak, a large portion of them dying in a few weeks, and those that survived made a very poor growth and produced only a few inferior flowers. I at once concluded that what the irises needed was water and plenty of it, so I removed them to a swampy piece of land which could be flooded. The results were surprising; the foliage soon assumed a dark green color and began to grow vigorously, and by frost many of the leaves were upwards of four feet long,—and such flowers as they produced the following June! Orchids could not surpass them.—*Vicks Magazine*.

PENTSTEMON BARBATUS.



FIG. 1422.—PENTSTEMON.

HAVING this hardy perennial in bloom at "Maplehurst" all through the month of July, we have photographed a spray to give our readers an idea of its flowering habit. By itself it is hardly showy enough at a distance, it needs to have other more showy kinds with it, such as for example, *Coreopsis lanceolata*, which blooms about the same time. The name is from *pente* five, and *stemon* a stamen, but the fifth though present and conspicuous, is sterile. The common name is Beard Tongue, because the lower lip of the corolla is more or less bearded at the throat. There are about sixty varieties, mostly natives of North America. There is a great variety of colors and many of them are especially desirable for the herbaceous border. The species above referred to, sometimes called *Chelone barbata*, has flowers varying from light red to carmine, and grows to about three feet in height.

GROWING AMARYLLIS.—Place about one inch of small pebbles or charcoal in the bottom of a six or eight-inch crock. For soil use sand, muck and rich loam. If the loam is not rich add some fertilizer. Plant bulb with about one-third above soil, so water will not get in the neck of the bulb. Plunge in the earth in summer, in good light, but not in the sun. In fall ripen foliage, and set in a moderately cool place. When you wish them to bloom bring them to a warm window, and when leaves begin to form water gradually. I have had good success with this treatment. Some varieties are easier grown than others.



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.

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LOCAL NEWS.—Correspondents will greatly oblige by sending to the Editor early intelligence of local events or doings of Horticultural Societies likely to be of interest to our readers, or of any matters which it is desirable to bring under the notice of Horticulturists.

ILLUSTRATIONS.—The Editor will thankfully receive and select photographs or drawings, suitable for reproduction in these pages, of gardens, or of remarkable plants, flowers, trees, etc.; but he cannot be responsible for loss or injury.

NEWSPAPERS.—Correspondents sending newspapers should be careful to mark the paragraphs they wish the Editor to see.

DISCONTINUANCES.—Remember that the publisher must be notified by letter or post-card when a subscriber wishes his paper stopped. All arrearages must be paid. Returning your paper will not enable us to discontinue it, as we cannot find your name on our books unless your Post Office address is given. Societies should send in their revised lists in January, if possible, otherwise we take it for granted that all will continue members.

✧ Notes and Comments. ✧

WHITESMITH GOOSEBERRIES came to hand from Mr. Thos. Beall, Lindsay, July 26th. They were exceedingly fine, the largest we have seen. Mr. Beall writes, "These three dozen weigh 17.62 ounces avoirdupois, averaging almost half an ounce each (0 49 oz.) A few of them we weigh considerably more than half an ounce each."

PRUNING RASPBERRIES is usually delayed until leisure time in winter or spring; but if time permits, we would advise cutting out the old wood soon after fruiting season, in order to give the young shoots the better chance of development. We do not any longer shorten back the young canes in their growing season, because that tends to cause them to waste their strength, growing laterals instead of fruit buds. It is time enough to shorten back in

the spring, cutting off simply the weak tops, and leaving just as many good plump fruit buds as the cane seems strong enough to bear. This advice applies, of course, only to red raspberries. The black cap varieties should be summer pruned to encourage laterals at an early age.

Columbia and Shaffer raspberries seem very similar, with some advantage in favor of the former.

The Loudon promises to be one of the best of the newer red raspberries, both in vigor, hardiness, and size of fruit.

INTERESTING PLANTS AT RENNIE'S.—A few hours were profitably spent at Mr. Rennie's trial grounds, at Swansea, Toronto, recently. The situation is delightful, and the grounds kept in good trim by Mr. McLay, the gardener, who

NOTES AND COMMENTS.

took pleasure in showing us his many varieties of phlox, asters, dahlias, cannas, etc. The Ice King primrose was pointed out as a fine variety for cemetery planting, the bloom being pure white, and the plant close in habit; Achillea, the Pearl, a pure white flowering variety of the common Achillea millefolium, was also noted as well adapted for the same use. Delphinium formosum is a beautiful larkspur, one of the newer varieties, which far surpass the old ones of our grandmother's gardens. Helianthus multiflorus is a very satisfactory hardy perennial; so free in bloom, and adapted to almost any soil and location. Of the Salvias we noted Holt's Mammoth as one of the best for the kitchen garden, and Salvia patens as an excellent bloomer for the flower border. Gaillardia grandiflora and Coreopsis lanceolata are two hardy perennials that should be in every garden, for they succeed admirably everywhere. A double flowering Convolvulus, Calystegia pubescens, seemed to be desirable for ornament, if only it is free from the faults of its near relative the common bindweed.

ONTARIO FRUIT IN WINNIPEG.—We do not know who are the guilty persons, who have been shipping badly packed fruit to Winnipeg, and bringing down upon the whole of Ontario the abuse of the Winnipeg press. Certainly we have in Ontario plenty of good packers, who can put up their fruit equal to Californian packers or any other packers. The article referred to is from the Winnipeg Commercial, and reads as follows:—

"Ontario shippers of fruit will have to improve their methods vastly if they hope to be able to do anything in this market. Ontario shippers have never yet been able to lay down soft fruits in Winnipeg fit for consumption. Ontario apples are all right, and in the fall of the year we also receive large quantities of Ontario grapes, but most other

varieties of Ontario fruits invariably arrive here in a condition unfit for consumption. This is, no doubt, mainly due to the careless and slovenly way in which Ontario shippers handle the fruit. The fruit is evidently often too ripe when packed, and there appears to be an utter absence of care in handling. No attempt appears to be made to properly assort and pack the fruit. Peaches, plums, etc., are dumped promiscuously into baskets, and they arrive here in a mushy condition, with the juices streaming from the baskets. The distance from the point of production is not the trouble, as California fruits are arriving here constantly in car lots in perfectly sound condition. Skill and care in handling is applied to the California fruit, while in the other case there is lack of knowledge and carelessness. This accounts for the difference, and is, no doubt, the reason why Manitoba gets her fruit from California.

British Columbia growers have made a few shipments to the Winnipeg market, with a result not unlike that of Ontario shipments. This year we learn that British Columbia growers are endeavoring to learn and practise California methods in handling fruits, and if they follow up this policy they will, no doubt, in time learn the secrets of shipping fruit to distant markets in a condition fit for consumption."

In explanation we may say that the Commission men who are doing the shipping of fruit at the present time, are the persons responsible for such failures; for they buy up basket goods indiscriminately at the wharf or the auction market—goods that were never packed for long distance shipment, and load up cars with them for distant markets. When once our growers undertake putting up their finest varieties for Winnipeg, or any other distant market, they will make a different showing. They will use small crates, not baskets, and they will wrap each specimen, and pack tightly, so that they will open out in prime condition.

We believe there is room in our best fruit centres for a special business, viz:—that of fruit packing. A firm who would make this a specialty, providing the boxes, and wrapping material, grading the fruit and sizing it, for so much a case; and perhaps even doing a shipping business as well would surely make a great success of it.

THE CANADIAN HORTICULTURIST.

THE FRUIT CROP.—Worse and Worse are the words that describe the fruit crop this season. The drouth has been so long and so intense that nearly every kind is undersize while the same cause has made plums and peaches to drop badly.

The Bureau of Agriculture reports about 6,000,000 bearing apple trees in the Province, and the yield in 1896 was about 56,000,000 bushels.

The apple crop this year will fall much below the average and winter varieties will be particularly scarce. A correspondent of the Sun says :

"There are not, he says, enough really good apples in Ontario to-day for the home market alone. Prince Edward County has about half a crop of unsalable fruit, and buyers from that section are endeavoring to contract for supplies in Grey and Simcoe. Buyers from Michigan have also been in the same counties endeavoring to contract for supplies. They had previously been through Kent and Essex, where they were evidently unable to secure what they wanted. Grey and Simcoe have about half a crop of Rhode Island Greenings and about an eighth of a crop of Spys. "On 120 full-grown trees, which should average four barrels to a tree, I will not have ten barrels, all told," says the correspondent, "and I have only heard of one lot better than mine. Of Ben Davis," he goes on, "there is a fair crop and there will be a good crop of King Tompkins." Another point made by our correspondent is the fact that Germany is inquiring for evaporated fruit, which indicates that supplies are low in that country, too. In the Northern States there is also said to be a poor crop of winter fruit. On the whole our correspondent believes that winter apples will bring a higher price this season than they have done in many years.

Peaches are turning out to be a poor crop, while pears are a pretty good crop. On the whole the outlook is not discouraging because prices are looking up once more, and profits will be more satisfactory than with a too abundant crop.

FRUIT FOR OMAHA.—Prof. Saunders of the Dominion Experimental Farm is forwarding each week a collection of Canadian fruit to the Omaha exhibition.

A good show of Canadian peaches and plums will also be made, which ought to open the eyes of some of our American cousins to the possibilities of fruit growing in Canada.

NEW FRUITS COMMITTEE.—At the last meeting of the Association the following gentlemen were appointed a committee on new fruits, who will report at the next meeting in St. Catharines, viz. : Prof. H. L. Hutt, O. A. C., Guelph ; W. E. Wellington, Toronto ; and L. Woolverton, Grimsby. Persons having new seedling fruits of value, are requested to mail one or two samples to each of these gentlemen, and if thought worthy by them, they will receive due notice.

FRUIT IN MANITOBA.—We have just received a letter from Mr. John Parkinson, Portage la Prairie, calling attention to the capabilities of his section for growing certain varieties of fruit. He has tried Duchess, Wealthy, and about twenty seedlings ; all are doing well at four and five years of age, have never lost one inch with frost, and why should they not bear fruit ?

THE APPLE PROSPECTS have materially changed since our earlier reports, and statements made earlier in the season now need many qualifications. The Fruit Trade Journal of New York has recently quoted remarks made by the writer early in the season, which are not now applicable.

Not only in Canada, but everywhere the apple crop seems to be short, and the prices promise high.

According to the latest diagram sent out by Messrs. Woodall & Co., of Liverpool, the highest price Canadian Baldwins brought in 1896 was 14/6, but

NOTES AND COMMENTS.

for the most price it was about 10/. In 1897 the highest was 25/ and the lowest 12/6. If these latter prices prevail, fruit growers will have to cease growling about the disappointments of the fruit growers.

A GOOD HINT.—A good many of our societies hesitate about making a flower show, thinking it a vast undertaking. We have found it the simplest thing in the world, and about the most enjoyable. Let the show be only one day and evening, and if in a small place, in the evening only; let an orchestra be secured for the evening, and have a promenade concert to view the flowers. Let these be well distributed through the hall, so as to be of easy access, and the popularity of the affair will be surprising. The members contributing to the floral show, may have free tickets of admission, and all others should pay; and the proceeds will pay expenses.

One very important consideration is the engaging of a man who knows how to move flowers to take charge of the collecting of the plants and their return to their owners. This is essential to the success of the show. A committee should go in advance and secure a list of exhibits to be collected. The Kincardine Society arranged to hold a show of this kind on Aug. 25th, and early in August sent out the following circular.

August 4th, 1898.—The Kincardine Horticultural Society has decided to hold its second Annual Exhibition in the Town Hall, Kincardine, during the day and evening of Friday, August 28th. To ensure success it is very necessary that you as a member should do your part towards the exhibition by a liberal display of flowers, foliage and flowering plants. You will please note that any healthy plant will be gladly accepted for exhibition. There must be a

large display. A collector will call upon you on Thursday, 25th August, so please have your exhibits in readiness for him. The greatest care will be taken of everything.

Mark all your pots for identification.

On Friday evening a promenade Band Concert will be given in connection with the exhibition.

All members contributing plants or flowers are entitled to two tickets of admission to the hall. General admission, 10 cents. The directors have decided that between the hour of four and five o'clock in the afternoon the school children will be admitted free.

A. C. WASHBURN,
President.

JOS. BARKER,
Secretary.

FRUIT GRADER.—An excellent invention has been completed by E. H. Wartman, Kingston, Ontario. It is a fruit grader, consisting of a sorting table and fruit sizer, so arranged that fruit of various sizes can be separated easily for separate packing. We are trying it for Bartlett pears for the English market, and we intend using it later on for apples.

For the best success in marketing our fruit we must grade, both in size and quality.

SMITH'S SEEDLING PEACH.—A sample of this Seedling was shown us on the 25th August, at a season when good peaches are very scarce. Hales Early was just over and Honest John not yet ready. The peach was grown from seed at Hamilton, by R. T. Smith, who believes he has a prize worth looking after. It is large in size, with beautiful bright, red cheek. It has a distinct suture, a deep cavity, and quite a depressed apex. The skin is easily removed without a knife. The flesh is white, very tender, sweet, rich and very juicy. A freestone—a capital dessert peach.

✧ Question Drawer. ✧

A New Raspberry.

1022. SIR,—I have among my seedling raspberries a black raspberry or Black Cap, that is the largest I ever saw — fully one-third larger than Gregg. It fruits freely from the new wood and is very late, the first fruit on the new wood just ripening, and red and green berries yet to ripen. If it proves as good as I think it is, I ought to make something out of it. Can you advise me as to the best way to proceed?

L. FAIRBANKS, *Whitby, Ont.*

We would advise our correspondent to send samples to the New Fruits Committee; and also to all nurserymen. Possibly some one will buy the right of propagation, if it has real value.

Handling Potatoes.

1024. SIR,—When is the proper time to store potatoes? I have an early kind about ripe. Should they be put in cellar now, or left in the ground, and if so, how long?

A. B. C., *Iroquois.*

Potatoes should be dug when fully matured, which helps prevent the development of the rot (blight), and kept at a temperature not to exceed 50 degrees. The ideal way of keeping potatoes is in cool dry pits—where they retain their best qualities.

Few cellars are suitable for keeping potatoes. Heat shrivels the tubers and forces growth. Light makes the skin and flesh green, and unfit for food.

ALF. BROWN, *Iroquois.*

The Luna Moth.

1025. SIR,—I managed to capture a pair of worms on a hickory tree, and I cannot find them in my insect books.

They are green, with yellow specks in the same places as the prickles on the *Cecropia*. They are very much like the *Polypheumus* only they have no specks on the back of the head.

Their cocoons are about an inch long and

half an inch both wide and high, and are perfectly white.

GEORGE B. PATTISON, *Grimby.*

The insect referred to in the above letter, as far as I can judge from the brief description of the worms and cocoon, is probably the Luna Emperor Moth (*Actias luna*), the most lovely insect that we have in this country, with its pale green wings drawn out into long crescent-shaped tails, and pure white body. Its caterpillars feed upon hickory, butternut, walnut and beech trees.

C. J. S. BETHUNE, *Port Hope.*

Sunflower Seed for Poultry.

1026. SIR,—Please give directions for curing sunflower seed for poultry.

A SUBSCRIBER, *Iroquois.*

Sunflowers, for the seeds, should be allowed to dry thoroughly on the plants, if possible, and this will be quite possible if the weather remains as dry as we have had it in this section of Ontario for the past six weeks.

Then the heads or flowers should be cut off, leaving about 3 inches of the stem on the heads, and then placed heads upwards on a floor, always selecting a dry place (because sunflowers readily gather moisture). When perfectly dry, the flowers should have the seeds rubbed out of them by hand, which will be done very quickly as soon as the flowers are perfectly dry.

I emphasize the fact of having the flowers perfectly dry, because the sunflower seed is very difficult to dry if it has gathered any moisture.

Now, if the season should turn wet towards the ripening-time of the flowers, we recommend cutting them ahead, and

QUESTION DRAWER.

drying them indoors, which will be the safest way, and avoid any possibility of mildewing of the seeds, which is important to avoid for all purposes.

In this way, I have saved any quantity of sunflower seeds and had some excellent poultry food.

ANTON SIMMERS, *Toronto.*

Pear Crack.

1027. SIR,—I have a Flemish Beauty pear tree which for the last two years has borne little else than pears cracked almost to the centre. What is the remedy. I saw an account of introducing fluid of sulphur, by boring a hole and inserting the sulphur and plugging over. Would this benefit my tree?

J. W. S. CHATHAM.

It is strange how much more ready people are to follow out quack nostrums, than to follow out the advice of the scientist. Sulphur could not be taken up into the tree through an augur hole. The cause of the cracks in the pears is no doubt the well-known apple scab, to which the Flemish Beauty is especially liable. It is a fungus which lives through the winter on fallen twigs, leaves, and younger twigs. It attacks

the young fruit and causes it to drop, or if the attack is on the fruit when grown larger, it often causes it to crack open, exposing it to the attacks of other fungi. The best remedy is frequent spraying with Bordeaux mixture, as directed by this Journal at the proper season.

Ginseng.

1028. SIR,—In the last HORTICULTURIST I saw an article on Ginseng. It strikes me I have just the place to grow it, viz., a hardwood grove (Maple sugar bush), nicely underbrushed. There are no stones and soil is quite good and deep. If you have any opinions to offer me upon the subject, where I can get the seeds, will the plant thrive where I propose, and any other practical information you may be able to supply, I shall be greatly obliged.

G. H. FAWELL.

Canadians had better buy seed instead of plants. It will be cheaper and less risky. It is possible that both plants and seed can be bought of Mr. George Stanton, Summit Station, Onondago County, New York. If he cannot meet the wishes of intending buyers, he may know who can.

D. W. BEADLE, *Toronto.*

FIRE FANGING OF MANURE is destructive, and although a well-known occurrence in manure heaps, some farmers do not try to prevent or suppress it. Fire fang is overheating of the manure, due to rapid decomposition, a large proportion of the ammonia being liberated and lost. When fire fanging occurs, drive a crowbar into the heap in several places and pour in cold water. A better plan, some think, is to wet the manure and turn the heap over, adding dry

earth and plaster, placing the coarse portions of the stable manure in the center. Cold water absorbs ammonia and prevents its escape, and unless it is used much of the volatile ammonia will escape while the manure is being handled. The heap should not be kept wet, but slightly damp, which will promote decomposition; but overheating may always be controlled by cold water. Farm and Home.

* Open Letters. *

Brown Rot.

SIR,—I am sorry to find that the "rot" (brown rot we call it) is making serious inroads in the vineyards here. So far the vines of black loam overlying sand are most seriously affected, but I notice a little of it on our best situations. A few days more will determine what course the disease will take.

A. M. NEILL, *Windsor.*

Black Currants.

SIR,—I noticed in the *HORTICULTURIST* for last July a short article on "Black Currants," with a cut of some very fine ones, although I doubt very much if they are any better than a Saunder's seedling sent out by you two or three years ago. The bush is still rather small, but I picked three pints of large fruit last month. It was the first to ripen, fruit all ripe together, no second picking, and the bunches long and full of fruit. The seedling sent out the year before, although it had a fair amount of fruit, it was all scattered, and had to be gathered one at a time. Last year, although I had taken good care of the bushes, I had little fruit, when all around me they were bearing fairly well, and I wrote to you about them, and you kindly gave me some hints. This year I had a large crop, some bushes going over two qts. a piece, and my

neighbors had next to none, and bought from me. I am coming more and more to the conclusion that in this north country that the late frosts do the trouble. I send you these particulars, as I thought you might be interested in them. I had 100 qts., which sold readily at 12½c. per qt., against imported fruit.

A. J. COLLINS, *Listowel.*

Reports Should be Reliable.

SIR,—Allow me to offer a suggestion as an admirer of your valuable publication.

It is desirable that you should have competent correspondents to report to you on the various topics throughout the Province so that reports can be relied upon as substantially correct. I notice in your issue for July a report from Ottawa.

I presume your correspondent gauges his opinion by the crop in his sheltered cottage garden in the city, but it is quite incorrect as regards the general crop of plums in the Ottawa Valley, they are generally a failure from blight. About strawberries, he says, the weather was cold after blooming time and the crop was poor. He must have Klondyke on the brain, there was no cold weather in the Ottawa Valley in June.

This is not the first erroneous statement I have noticed from the correspondent and in a journal like the *HORTICULTURIST* it is misleading.

J. HENDERSON,
Stittsville.

THE APPLE CROP.

The following information regarding the apple crop in England is given us by Messrs. Woodall & Co., of Liverpool, a firm of good standing in Great Britain. The figures represent the number of reports received, and the comparison for the past three years is as follows:

This year	42	over av.	150	av.	139	under av.
Last year	10	"	74	"	230	"
1896	75	"	152	"	165	"

You will notice above figures indicate a larger crop than last year, but smaller than two years ago.

NEW ENGLAND STATES.—Of these New Hampshire and Massachusetts have the best crops, generally estimated at $\frac{1}{2}$ to $\frac{1}{3}$ of 1896. Maine is light for an apple year, probably not over 25 % of two years ago.

NEW YORK STATE.—Taken as a whole, the Hudson River and Western N. Y. are reported light and scattering, and a very light

crop for that State, perhaps a little in advance of last year; and after supplying its own demand with a surplus for Western trade, it looks as though there would not be a great quantity for export.

WESTERN AND SOUTHERN STATES.—Missouri, Illinois, Kansas, Arkansas, and Virginia, which were heavy last year, are reported to have no show for a crop, and generally may be called a failure. Michigan, however, has quite a crop in some sections, but in others quite a failure.

NOVA SCOTIA was reported to have a good crop, but latest reports are conflicting.

ONTARIO.—East of Toronto winter fruit is generally scarce and scattering, and inclined to be spotted. North and West there is a better showing, and in some sections plenty of fruit; however clean stock is by no means too plentiful.

FROLIC OF THE FRUITS.



FAID the lemon to the squeezer,
 "Did you know 'twas Christmas
 time?"
 When I hob-nob with the
 cherry and the pineapple
 and lime;"

But the grapes here interrupted, tumbling
 down in a bunch,

Crying, "All of us in bottles makes the best
 part of the punch;"

But the coconuts up-bristled—neither eyes
 nor hair they lacked—

Yelling, "Milk beats all the punches, do you
 think our heads are cracked?"

The bananas pointed fingers full of scorn at
 all they saw:

"We're the flour of Brazil, though we're
 better when we're raw."

The bumptious apples chimed in with a
 peeling laugh and said:

"Not a fruit can beat us painting any town
 and orchard red."

The pomegranate objected, and a voice with
 mellow reach

Sang, "Look upon this cheek and say, now
 a'int I just a peech?"

Pecans began to rattle, and walnuts made a
 whirr

To drown some northern voices: "You're
 a chestnut with a bur-r-r."

The chestnut snapped their shells; "You've
 been roasted, too," they said;

And the peanuts sneered—"Oh, we're the
 only nuts who have a head."

The oranges and grape-fruit came slowly
 rolling in

Singing, "See the best of Christmas—we've
 a Klondike in our skin."

The quince and the citron grumbled over
 family jars gone by,

When their brethren from a stew fell to
 fingering in pie.

The melon rolled with laughter as she bumped
 upon the stairs:

"Preserved and pickled Christmas! watch
 the dinner come in pears!"

The prunes began to simper as they clambered
 off their plates:

"These fruits have got no memory, watch
 them take along dry dates."

The procession fell in line, and the berries
 said 'twas plum,

But they didn't care a fig, and the currant
 jokes were "bum."

They all took up a quickstep, and with many
 bounds and bobs

They tropped into the sanctum—"Merry
 Christmas, Mr. Hobbs!"

The gooseberry turned green, as she courtesied
 with a duck;

"Here's your health in cherry-bounce;
 Happy New Year, Mr. Tuck!"

A CHESTNUT BURR.

* Our Book Table. *

THE WESTERN HORTICULTURAL SOCIETY.
 The first published report of this young
 Society has come to hand from the president,
 the Rev. Prof. Baird, of Winnipeg. It is a
 tidy pamphlet of 120 pages, and contains in-
 teresting and valuable papers on such topics
 as House plants, Practical Tree planting,
 Small Fruits for Manitoba, Doubtful fruits,
 Trees for Windbreaks and Winter Protection,
 etc., etc. We wish every success to our
 Sister Society.

CATALOGUE of Champion Fruit Evaporator,
 a Dryer, G. H. Grimm, Mfg. Co., Montreal.

REPORT OF THE CHEMIST, (Prof. T. T.
 Shutt,) of Central Experimental Farm,
 Ottawa, 1897.

**REPORT OF THE ENTOMOLOGIST AND
 BOTANIST** (Dr. Fletcher,) and of the **FOREMAN
 OF FORESTRY,** (W. T. Macoun,) of the Cen-
 tral Experimental Farm, Ottawa.

SALYCILIC ACID IN FOOD.

It is well-known to-day that salicylic acid is a powerful antiseptic. As such it retards the action of organized ferments like the yeast plant and putrefactive bacteria. It hinders and prevents fermentation, the souring of milk, and the putrefaction of milk. Its action upon unorganized ferments is even more powerful. It completely arrests the conversion of starch into grape sugar by disease and pancreatic extracts. This action is directly opposed to the process of digestion, and, were there no other reason, the use of salicylic acid should be universally condemned. These facts in connection with salicylic acid have been recognized very thoroughly in legislation. The use of the acid has been condemned by most of the European countries having pure food laws. In France it is forbidden by law. In Austria, Italy and Spain it cannot be used without the

danger of incurring a heavy penalty, and all South American States having pure food laws have absolutely forbidden its sale. The laws of many of the States forbid its use. By a decision of Mr. Wells, the dairy and food commissioner, the use of salicylic acid in food is prohibited in Pennsylvania.

I wish to call attention here to another fact in connection with the use of salicylic acid which is of extreme importance, viz, the sale of preservatives, etc., under various high-sounding names, intended for use in private families. A number of these, claimed to be perfectly harmless, are on the market, but actually contain salicylic acid as the main ingredient. The conscientious and careful housekeeper should put an absolute veto upon the use of any such compound.—The Sanitarian.

TRANSPLANTING FERNS.—The best time to transplant wild ferns is in the spring, when they first start a new growth, though with care they may be transplanted any time during the spring and summer months. The soil used should be light and porous. Pure woods earth mixed with leaf-mould is a good composition. It is a good idea when possible to secure the soil where the Ferns grow wild. If planted in a bed it should have a shaded situation free from the direct rays of the sun. After removing the dirt from the bed for about two feet fill in with some coarse gravel and a layer of dried grass, then fill in with the prepared dirt. Ferns like a moist, but not a soggy soil. If you have a good

situation with neither too much sun, nor too much shade, try a bed of wild Ferns bordered with Pansies, and you will have a "thing of beauty and joy forever," or at least while the summer lasts.

\$500 for Suburban Houses. —

The editors of *The Ladies' Home Journal* offer five hundred dollars in prizes for photographs of the prettiest suburban houses. In this way the *Journal* will secure pictures of the most attractive summer homes in this country, and from these a selection will be made for publication. The great interest in the American home—inside and outside—is shown in this offer of big prizes.