

Technical and Bibliographic Notes / Notes techniques et bibliographiques

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

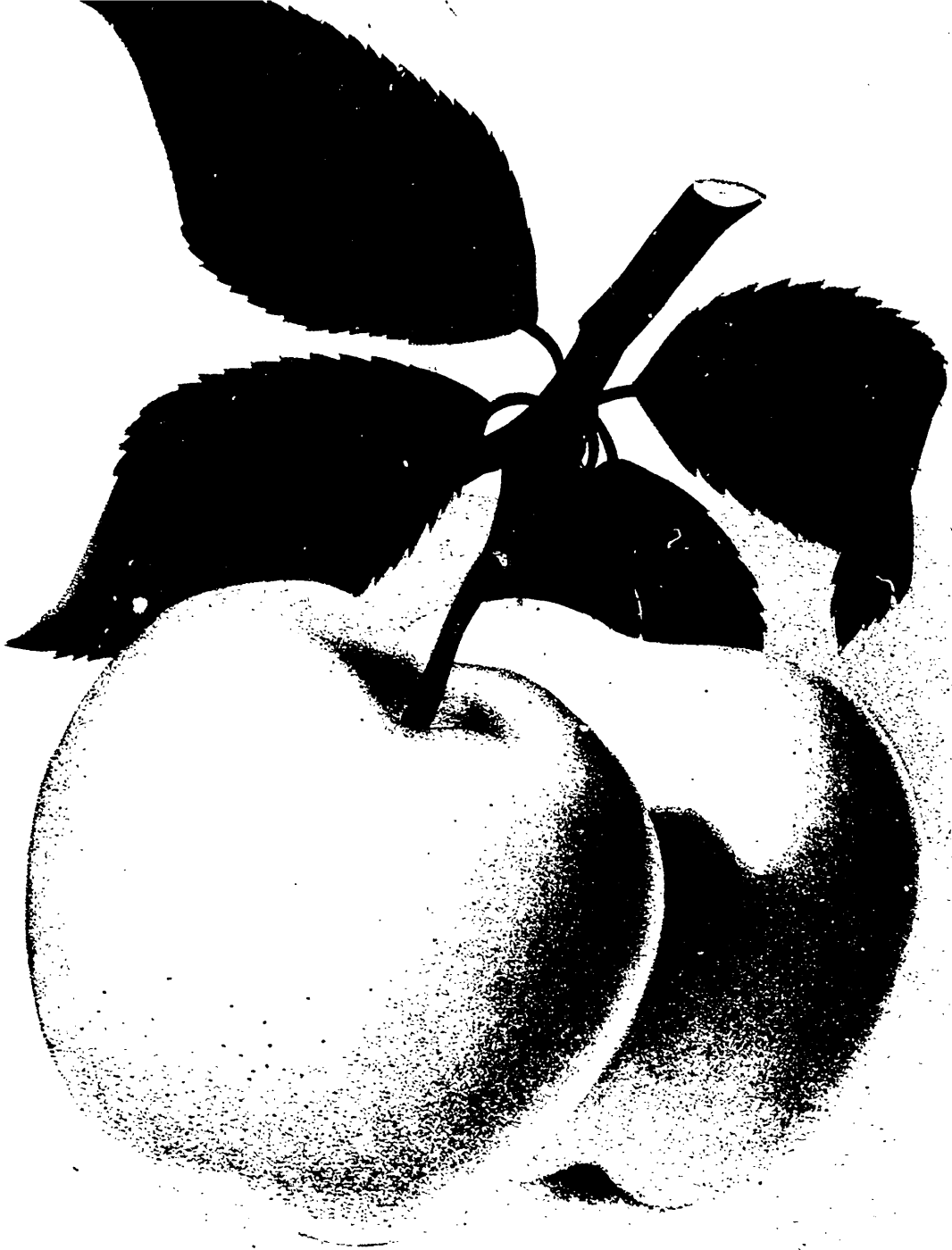
L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués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

- Coloured covers/  
Couverture de couleur
- Covers damaged/  
Couverture endommagée
- Covers restored and/or laminated/  
Couverture restaurée et/ou pelliculée
- Cover title missing/  
Le titre de couverture manque
- Coloured maps/  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black)/  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations/  
Planches et/ou illustrations en couleur
- Bound with other material/  
Relié avec d'autres documents
- Tight binding may cause shadows or distortion  
along interior margin/  
La reliure serrée peut causer de l'ombre ou de la  
distorsion le long de la marge intérieure
- Blank leaves added during restoration may appear  
within the text. Whenever possible, these have  
been omitted from filming/  
Il se peut que certaines pages blanches ajoutées  
lors d'une restauration apparaissent dans le texte,  
mais, lorsque cela était possible, ces pages n'ont  
pas été filmées.
- Additional comments:/  
Commentaires supplémentaires:

- Coloured pages/  
Pages de couleur
- Pages damaged/  
Pages endommagées
- Pages restored and/or laminated/  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached/  
Pages détachées
- Showthrough/  
Transparence
- Quality of print varies/  
Qualité inégale de l'impression
- Continuous pagination/  
Pagination continue
- Includes index(es)/  
Comprend un (des) index
- Title on header taken from:/  
Le titre de l'en-tête provient:
- Title page of issue/  
Page de titre de la livraison
- Caption of issue/  
Titre de départ de la livraison
- Masthead/  
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/  
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
						✓					



**YELLOW TRANSPARENT.**

(Russian Transparent.)

One of the very hardy early ripening varieties; planted largely and is becoming very popular.

THE  
CANADIAN  
HORTICULTURIST.

PUBLISHED BY  
THE FRUIT GROWERS' ASSOCIATION  
OF ONTARIO.

---

VOLUME X.

---

EDITOR:

L. WOOLVERTON, M.A., GRIMSBY, ONTARIO:

---

THE COPP, CLARK COMPANY, LIMITED,  
GENERAL PRINTERS, 67 & 69 COLBORNE STREET, TORONTO.

1887.



# The Canadian Horticulturist.

PUBLISHED AT TORONTO AND GRIMSBY, ONT.  
OFFICE ADDRESS—GRIMSBY, ONT.

VOL. X.]

JANUARY, 1887.

[No. 1.

## Fruits.

### THE YELLOW TRANSPARENT.

THE readers of the *Canadian Horticulturist* will be pleased to see a colored plate of an apple that has so much to commend it as the Yellow Transparent.

This is not a new and untried fruit, but is proved to be one of the few apples of real excellence which is adapted to the northerly portions of the apple region. It was imported from St. Petersburg, Russia, in the year 1870 and has since that become pretty widely distributed. The merits of this apple may be summed up under the following three heads:

(1) *Hardiness*—In this respect it is fully equal to the Duchess of Oldenburgh, and it is claimed that it will survive temperature of 45° below zero without freezing. It was on account of this quality that the Fruit Growers' Association of Ontario included it in

their premium list, and as it bears when quite young we hope soon to have the testimony of our readers in confirmation of its previous reputation.

(2) *Earliness*—Of all our early apples this promises to be the best shipper and the most remunerative. Previous to the ripening of the Red Astracan and the Duchess of Oldenburgh we have no apple of extraordinary beauty either for the table or market; but in the Yellow Transparent we hope to find the gap worthily filled. No other has such delicate waxen beauty, while in flavor it comes little behind the well-known Early Harvest. It may be gathered any time in August, or be left to hang into the month of September, all the time improving in beauty.

(3) *Freedom from Spot*—And herein lies of its great merits. The

PLAGUE OF THE APPLE SPOT  
is spreading through our country. Scientists claim that it is a species of fungus.

They call it *Fusicladium dendriticum*, a mingling of Latin and Greek, evidently meaning "a pest that spreads ruin upon trees," and certainly it is well named. The microscope reveals a miniature forest of plants in each spot, and as each 'one of these parasites draws its nourishment from the apple the most evil results must necessarily follow.

It is further claimed that the *leaf blight* which was so severe last summer and caused the trees to drop their leaves, is the same species of fungus as that above described which caused the apple spot.

No remedy is yet known, though some of our scientists are now making a study of this subject and will soon make known the result.

So far we only know of one means of checking it, and that is to plant only such varieties as are not subject to the disease. The Early Harvest and the Snow apple, which are breeding the pestilence, should be cut down and burned up; and in future only such varieties should be planted as the Yellow Transparent, the Duchess of Oldenburg the Golden Russet and others, which are free from its ravages.

The following description of the Yellow Transparent apple is from condensed remarks upon the Newer Fruits at the late meeting of the Michigan Horticultural Society: "A most valuable early sort; precedes by some weeks the Early Harvest; of extra good quality, pleasant flavor, beautiful color, waxen yellow; hard wood. A Russian sort sent out seventeen years ago, same as White

Astrachan and White Transparent Moscow. Planted extensively in Virginia and the Carolinas for early New York market."

#### APPLES IN BRITAIN.

BY A. MCD. ALLAN, GODERICH, ONT.

AT the first of the season prices for even the most ordinary samples were very high, the buyers being under the impression that the supply would be extremely limited. But as the season progressed prices have gone down until now buyers are very particular, and fruit that four weeks ago would readily bring 20s. to 25s. will not realize 16s. at the best for choice samples now. I luckily sold a number of cargoes "to deliver" and upon these the prices for all kinds are high, but those arriving now I cannot do much with. And I am sorry to say the fruit is mostly mixed in samples, very spotted and wormy.

Many packers, too, I fear, are packing right from the trees instead of allowing the fruit to lie upon the ground for some days first. The result is that I find a great deal of wet, mouldy fruit arriving for which only a trifle can be realized. I have had to let go some lots as low as 5s. per barrel for very poor stuff. This ought not to be so and the remedy is in the hands of the shippers, who should be more careful in giving instructions to their packers. Indeed, they should make packers responsible for all poorly culled and packed samples. The various kinds should be packed tight enough to allow for a slight shrinkage. In doing this probably some kinds will need to be pressed more than others as a soft or spongy variety will shrink more than a crisp variety.

Then, again, special engagements should be made with steamship companies so that they should store all away

from the centre of the vessel and the vicinity of the engines. Where apples are spotted I find that the slightest moisture will cause them to mould and rot. There is no use in sending poor samples here as they cost as much in freight as good ones and will only realize ruinous prices, besides gaining a bad name for the shipper and the country. I am convinced that it will pay to put up fine samples in bushel or bushel and a half boxes and wrap each sample in a piece of tissue paper. I find that American apples are generally packed better than Canadian, especially those coming from the Northeastern States and also New York State. It is a grand mistake to think that British buyers won't find small, wormy, spotted apples if we put them in the centre of the barrel. They turn the entire contents out when judging any new or old trade mark or shipper, and woe be to him who is found out this way. Every broker and retail fruiterer present will make a note of him. But the careful, honest man gets due credit and will at any time get a good price. I believe packers are to blame almost invariably and not the shippers. I know from experience how very careless they will become, no matter how careful they may be at the outset. It pays to bind them down with the most stringent rules, and then keep a watch over them by occasionally turning out a barrel to see how it has been filled.

#### THE COLONIAL AND INDIAN EXHIBITION.

JUST at this time when we are congratulating our worthy President, and his able co-adjutor, Mr. P. C. Dempsey, on their safe return from the Colonial and Indian Exhibition, we are sure our readers will be interested in a glimpse of the Canadian trophy, as shown in wood cut kindly loaned us by the *Farmers' Advocate*, of London.

At the bottom you see bags of cereals and specimens of Canadian timbers and minerals. Next above, and around behind, are about 1,000 glass jars containing those samples of apples, pears, peaches, berries, &c., which were so carefully collected by Mr. William Saunders. Above these again are grains, grasses, hops, &c., arranged in the most tasteful fashion.

All this cannot fail to have a good effect in gaining for Canadian fruits a higher appreciation in the Old Country.

The *Horticultural Times* (Eng.) says:—"We learn that Mr. C. R. H. Starr, Commissioner in charge of the Canadian Fruit Department at the late Colonial Exhibition, is making arrangements for the extension of the market for Dominion fruit in the many populous centres that lie beyond the confines of Glasgow, Manchester, Liverpool, and London, and is also endeavoring to open up markets on the Continent. The movement is a good one, though we fear the Continental markets will be difficult to open up. There is plenty of scope, however, for increased consignments in this country of good Canadian fruit. Mr. Starr's efforts in advocating cold storage for shipping Canadian fruit are well known."

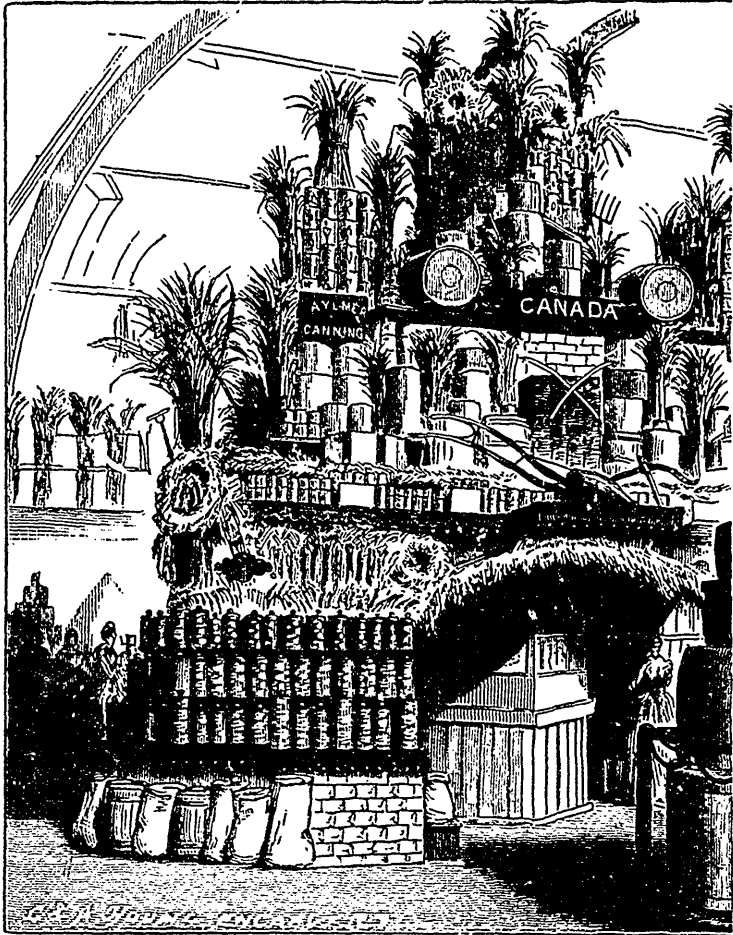
The *Canadian Gazette*, London, Eng., says:—"The displays of Canadian apples at Exeter and Edinburgh have aroused no little interest at the Exhibitions in those places. Reports from Exeter state that a most favorable impression was produced by the Canadian apples. The fruit, we are told, 'excelled in color and included some magnificent specimens, all in a fine state of preservation, notwithstanding the double consignment, first to London from Canada, and thence to Exeter.' The mayor in opening the Exhibition called special attention to the Canadian

fruit, pointing out that the importation of apples from Canada had increased from 15,000 barrels in 1874 to 242,144 barrels last year. A friend of his had, he said, transplanted and grown Canadian apples at Great Fulford in this country with great success. The Canadian fruit was, at the close of the show, distributed among the mayor, sheriffs, town clerk, local editors, and officers, all of whom speak most highly of its qualities. A special report is shortly to be made by the judges of the Tasting Committee as to the flavor and general quality of the fruit."

#### CANADIAN vs. BRITISH APPLES.

BY A. MCD. ALLAN, GODERICH, ONT.

A test was made in Glasgow by four good apple experts to discover the difference in flavor between our apples and the same kinds grown in Britain. Ribston Pippin, Blenheim Pippin and Cox's Orange Pippin were selected as these are grown in both countries. It was granted at first that Canada had by far the best of it in color and form. The specimens were peeled and sub-



THE CANADIAN TROPHY.

mitted, and in every case all four declared positively and readily in favor of those grown in Canada. This only bears out the opinions expressed by thousands whom we met at the Colonial Exhibition. There is no doubt whatever that the form of any of our naturally grown apples is as nearly perfect as it can be, whereas those grown in Britain have to be forced by extra manuring and high cultivation and hence are very knobby and high ribbed. Ours have a tenderness of flesh that we do not find in any of the British apples, and their color is superior to ours in

any we see. But it is most natural to expect fine flavor where we have so fine a color, and it would be unreasonable to think of finding high color where there is no color at all scarcely. The British atmosphere is too moist to give either color or flavor in its finest as we get it. Without abundance of sunlight and clear pure air such as we have no country can produce such fine samples of apples.

#### WHITE BLACKBERRIES.

SIR,—Whilst out for a tramp last August I came across a white, or rather yellow, blackberry growing wild on the banks of the Ottawa, the fruit being then ripe on the bush. I removed six suckers, wrapped them up with damp moss and brought them home, carefully marking the spot where they were found, so that should those procured fail to grow—as the season when plants are in fruit is the worst time for their removal—I would be able to obtain other plants at a future time. I would feel much obliged if you would kindly inform me if there are at present any white blackberries in cultivation. I see no reason why there should not be red, white, and black blackberries as well as the above three shades of currants, raspberries, grapes, &c. P. C. BUCKE, Ottawa.

[There are some white blackberries cultivated, such as Col. Wilder and Crystal White, and a red one known as Doctor Warder, but none of them productive enough to be valuable except as curiosities.—ED.]

#### THE BLACK SPOT ON THE APPLE.

SIR,—Enclosed please find my subscription to *The Canadian Horticulturist*, which I consider very much improved of late.

The *black spots* on the Snow apple is a subject in which we, in this section,

are deeply interested. My own opinion is that they are living beings that feed on the juice of the apple. They first attacked the "Snow," the most delicious of apples. They are extending their ravages to other kinds. The winter kinds have hitherto escaped. I was advised by an old fruit dealer to leave them on the tree as long as possible when so attacked. I believe the advice to be good.

Some of my Snows were blown off by the wind this year, and remained in the long grass four or five days. The black spots disappeared very much. I reasoned that the damp and cold were too much, for the insects breed in the sunshine. T. LEWIS, Maitand, Ont.

[NOTE.—The spot on the apple is not an insect. It is a species of fungus.—Ed.]

#### CLIPPINGS.

THE FRED CLAPP.—Try the Frederick Clapp Pear. The fruit is fine-grained, very juicy, rich and excellent. It ripens in October. Those who want a *showy* pear in place of the great Kieffer, as well as one that may be enjoyed, will be pleased with the F.C. It has not as yet been tried sufficiently to enable us to say where it will succeed.—R. N. Y.

AUSTRALIAN FRUIT arrives in England in excellent condition. It is packed in corkdust or sawdust, and placed in a cold compartment, where the temperature is kept as near to 40 degrees as possible.—*Rural New Yorker*.

THE KIEFFER PEAR.—The wife of a prominent fruit grower says that she has noticed that people learn to like the Kieffer Pear. Attracted by its beauty, even though it be to the amateur but skin deep, people continue to taste and eat, until finally they learn to like it very much in the same way as a taste for tomatoes, bananas and other similar



fruits is acquired. Specimens from the same orchard, or from the same tree, differ greatly in flavor. In the Philadelphia market the wholesale condemnation of the fruit, due to its deceptive appearance, has given way to a moderate appreciation, and it brings readily from \$1 to \$1.50 per basket.—*Rural New Yorker*.

**GARDEN CATS.**—Attention is being given in England to training cats to protect strawberry beds and other garden treasures from the voracious English sparrow. The cats wear collars, and are tethered by light and strong cords. The tethers are attached to comfortable cat houses which can be moved about from place to place as desirable. It is said a thoroughly trained cat enjoys the life hugely.—*Gardeners' Monthly*.

**CARE OF AN APPLE ORCHARD.**—The lack of manure and cultivation, and a general lack of proper care for orchards are the causes, in a great part, of their sterility. Neglected orchards produce small quantities of small, poorly-flavored and poorly-ripened fruit. The orchard should be supplied with all the manure the trees can appropriate, and the trees will then be vigorous and will show it by a good growth of wood and handsome fruit. When the trees do not make a free growth of wood it is certain that they are in ill condition and need the assistance of fertilizers and cultivation—probably, also, judicious pruning, cleaning the bark and the destruction of worms and insects.—*Vick's Magazine*.

[We would call especial attention to the above extract. It is worthy of consideration whether the barrenness of orchards in Ontario of late is not in part at least due to causes therein pointed out.]

#### VITICULTURAL.

**THE GRAPE MARKET.**—Mr. G. S. Palmer, a New York fruit merchant, is re-

ported in the *Wine and Fruit Grower* as saying that there is no cause for discouragement to grape growers, notwithstanding the extensive vineyards that have been planted.

Immense quantities of grapes are grown along the Hudson river; nearly every farmer for miles back has from one to fifty acres in vineyard, with an average yield of from three to five tons per acre. A similar statement might be made concerning Central New York and parts of Ohio. About Euclid alone, in the latter State, there are about 3,000 acres in grapes, which are mostly sent to Cleveland market, a city which alone consumes 10,000 pounds per day.

Besides these immense quantities grown in the Eastern States, California ships East some 20,000 tons yearly; and nearly one million pounds are annually imported from Malaga and Almeria.

Notwithstanding all this, Mr. Palmer states that the demand in the United States is increasing faster than the supply.

**PRUNING THE GRAPE.**—Mr. G. Arnaud, in the *Monticello Grape Grower*, says:—"Any system of pruning is good which will preserve a good equilibrium between the roots and branches of a vine, will let the vine have a good crop of fine fruit, and at the same time good wood for the next year's pruning."

Dr. Guyot says, and he is truly right:—"Each vine should produce, each year, at least one branch for wood and one for fruiting. The branch for wood should produce each year two sprouts or canes; one to replace the branch which has borne fruit; the other, cut back so as to leave two eyes, will become the branch for wood, and will produce the two shoots necessary for the succeeding year."

Of course if a vine is strong enough, it may have two branches for fruit and

two for wood, or three of each, even four, and the fruiting branches long according to the vigor of the vine.

Another point is to give a good shape to the vine, to distribute well the bearing canes and spurs, to have a good distribution of the fruit, and consequently a good ripening.

Before pruning especially the young vines, the vineyardist must have in mind what shape he wants to give his vines. He has to go over some vineyards and examine what shape suits him best. A good plan is to pay a visit, when he is pruning, to the neighbor who has every year the best crops. This one must have the best system.

About the season of pruning, the Spring is the best; but pruning can be done any time after the complete fall of the leaves, provided the wood is not frozen; or any time during the winter, when the weather is mild.

**THE ALICANTE GRAPE.**—Mr. P. Barry writes in the *Rural-New-Yorker* that this grape, long known in European collections, is large and handsome, and valued for its free fruiting and good keeping qualities. He has three vines in a cold graperie which never fail to give a heavy crop. The bunches weigh from two to four pounds. The fruit, however, is not more than second quality.

**THE WORDEN GRAPE.**—There is a good deal of discussion among our exchanges as to whether this grape is really earlier or better in quality than the Concord. Our experience at Grimsby on the south shore of Lake Ontario for two years past is decidedly in its favor in both these respects. We can market it fully a week before our ConCORDS, and we find that when the Concord comes in, dealers still offer one or two cents more for Wordens on account of quality. It does not equal the Concord for quantity.

#### A NEW ERA IN THE APPLE TRADE.

THIS year may be regarded as the commencement of a new era in the import trade. The exhibitions that now take place annually in London have done much to foster competition between this country and America, but the latest, and perhaps the most successful, of the series—the Indian and Colonial—has given the greatest prominence to matters horticultural. The British colonies are well represented in every department, but in none more so than in the fruit trade.

*Route.*—This is a question of the utmost importance, and although a London house, we must say that the Liverpool route is by far the best. Shipments made from New York, Boston, Philadelphia, Montreal, or any other ports to Liverpool at a through rate to London reach us in a minimum of time and therefore in better condition than would otherwise be the case, while the direct London route is subject to delay, and an additional objection presents itself in the shape of heavy wharf and lighterage expenses."—*Draper & Son, Convent Garden, London, Eng.*

#### THE VALUE OF FRUIT AS FOOD.

VERY few people are aware of the value of fruit as an article of food. Many persons look on fruit as a luxury, whilst some shudder at the idea of it, and conjure up internal tortures at the name. Children, on the contrary, will eat fruit at any time, and undergo much discomfort to get it. It is elderly people, or those past their first youth, who cannot eat fruit and enjoy it. Cooked food, highly seasoned meats, and alcoholic liquors have spoiled their taste, and in many instances a ripe strawberry or plum would inconvenience them sadly. But the person who values health, and who knows little of the value of fruit, will make it a point to

eat it daily, and even on occasions to make a meal almost entirely of it. Another cause why ripe and wholesome fruits are given a bad name is because they are eaten at the wrong end of a meal. After many courses of heavy foods and strong drinks a few harmless strawberries are indulged in, and then when these rich foods and stimulating drinks upset the stomach the blame is put on the innocent strawberry.

Many people—a good number of whom are doctors—are of opinion that autumnal diarrhoea is due to fruit. This is an idea not borne out by facts. I inquired into the subject, and found that in every case the diarrhoea was due to meat or fish, but never to fruit alone. The true explanation of autumnal diarrhoea lies in the fact that in hot weather flesh putrefies very quickly, during putrefaction alkaloids called ptomaines are formed; these are emetic and purgative, and give rise to distressing symptoms. These alkaloids are found in meat at all times, but more especially during hot weather.

Fruit has the composition of a perfect food, containing all the substances required by the body. Here is the composition of strawberries:

	Per cent.
Water.....	87
Sugar.....	4
Free Acid.....	1½
Nitrogen.....	0½
Insoluble matter (½ per cent. of which is ash).....	7
	100

From this table we can see that fruit is a perfect food, as it contains everything needed, including water.

Were fruits used daily by all there would be less gout, rheumatism, gall stones, stone in the bladder, and calcareous degeneration than there is now. In connection with the curative power of fruit, we must mention the

#### "GRAPE CURE."

This is practiced in France and Germany in the autumn, and is a cure for many diseases due to high feeding. The patient is given a pound of grapes to eat the first day. This amount is added to until the person can eat five or six pounds a day. The other food is gradually lessened, and the diet at last consists entirely of grapes. It cures obesity and many other complaints, and starts the person off on a new lease of life. Fruit is thus seen to be a necessity in a rational diet, and of immense value in dietetic medicine.—*Vick's Magazine for October.*

#### NOTES TO NEW BEGINNERS.

BY PETER PRUNING KNIFE.

KNOWING that there are numerous new beginners in fruit culture who are sprouting out with large and erroneous ideas and expectations of amassing a fortune in a few short hours, I have considered it my duty to sharpen up and try and lop off some of the surplus sprouts which, I fear, may overshadow their prospects of success—and perhaps blight their crops:—and if I can let the light of thirty years of experience shine in upon them in any way, even though it may not help to ripen up their fruit, it may save them from some sore disappointments and losses which I have encountered.

#### ONE GREAT ERROR

among new beginners, especially among those that come out of towns and cities to get rich in fruit growing, is to think that any soil in a fruit-growing section, like Grimsby or Niagara, for instance, will produce fruit; and not a few have bought land in these localities that was much better adapted to growing frogs and making brick than to fruit growing, and after a few years' experience have become disgusted with the business and say it does not pay.

## ANOTHER COMMON ERROR

is thinking that there is not much work about fruit growing. Some have an idea that if they stick a few trees and plants in the ground the rain and sunshine will draw out the fruit, and all they have to do is to sit down and wait for it to ripen, and then gather it. My friends, you never had a more erroneous idea growing out of your heads in your life, and you had better let me lop it off. "Eternal vigilance" is not only the price of liberty (as we used to read in our school books), but it is the price of good fruit, and if you expect to keep down Canada thistles and quack grass, and kill the mice, and curculios, and borers, and codlin moths, and canker worms, and a thousand other insect pests, vermin and noxious weeds without a good deal of it, besides brain and muscle, you are mistaken; and if you expect

TO GROW FRUIT IN A FROG POND, or on hard red or blue clay because it happens to be located in a fruit section, you are doomed to disappointment. Locality is important, but not more so than soil. Diligence and vigilance are necessary to success. Let this be your first lesson. I will give my ideas of varieties, planting, etc., in a future number.

ARRIVALS OF APPLES in Liverpool market to date of Dec. 4 have been 265,938 brls., according to circular from Messrs. Green & Whineray.

---

## Flowers.

---

## WINTER FLOWERING BULBS.

BY HERMANN SIMMERS, ESQ. TORONTO.

AT THIS season of the year, when the time is arriving for bringing all Dutch bulbs to the light, we purpose drawing the attention of the readers of *The Horticulturist* to a few

## PRACTICAL HINTS

that will serve as a guide to those who may be unaccustomed to the proper treatment of such bulbs after bringing them from their dark recesses. Many people have oftentimes complained to me personally of the great trouble they generally have of trying to get their bulbs to flower in the neighborhood of Christmas; but allow me to remind the readers of *The Horticulturist* that in order to secure a perfect flower a little more patience must be manifested on their part. They must wait until that season has arrived when the days are getting longer, as at that time we are gradually getting more and more light to force the stems out. We speak more especially of the

## DUTCH HYACINTHS,

as the Roman Hyacinths, in all the colors, can be very easily forced for Christmas with a large degree of success, and, being much more rapid growers, it is not necessary to give the same care to them as to the Dutch Hyacinths, or other Dutch bulbs. Another point we might add is, that forcing Dutch Bulbs is simply an artificial mode of growing them in the house, and in order to gain the greater success a few practical hints can be used to advantage at any time by the amateur.

If Hyacinths grown in pots have been in the dark for about nine weeks, they may at any time after this be brought to the light, care being taken not to expose them suddenly, which may easily be avoided by placing them under a table for a few days, until the sprout has changed its color from a yellow to a light green, which is only the chlorophyll of the plant rising into the leaves on being brought to the light. The same care should be observed in Hyacinths that are grown in glasses, with the exception, that when the bulb has filled the glass with roots,

no matter how short a time it may have taken, they can be brought to the light. The Hyacinth at this stage, when grown in pots, should have an application of some plant food preparation, which will greatly strengthen the lower stem and produce good flowers. In case of those grown in glasses, the water should be changed about once every ten days, in order that the water may not become impure, tending greatly to retard the growth of the flower. Polyanthus, Narcissus and Duc van Thol Tulips may



SINGLE TULIPS.

be treated in exactly the same manner as the Hyacinth, as they require about the same time to develop their flowers. Crocus bulbs, being of quicker growth, may be brought to the light in a shorter space of time, but, as regards details of attention, they should have the same care as the Hyacinth.

## PRIMROSES.

We have only two native species of this interesting flower, viz., *The Birds' Eye*, or *Primula farinosa*, which is pale lilac with a yellow eye, and *P. Mistassinica*, which has a flesh-colored corolla. Both these are found on the shores of our upper lakes.

In England the *Cowslip*, or *P. veris*, is quite common, and varies under cultivation from straw color to many other hue.

The most widely known and most highly esteemed of the cultivated varieties is the *Chinese Primrose* (*P. Sinensis*, of which there is a beautiful colored plate in Vol. V. of *The Canadian Horticulturist*, and of which we now give our readers an illustration.



CHINESE PRIMROSE.

It bears a profusion of showy flowers, varying from white to pink, and is one of the most satisfactory of house plants.

*P. Cashmeriana*, which is offered as one of the premiums to be given our subscribers in the spring of 1887, is quite new in this country. A writer living in Erfurt, Germany, says of it: "Quite hardy; the earliest of all; produces compact umbels of rosy lilac flowers, very beautiful." Mr. Saunders says of it in the Report for 1885, p. 137: "Late in the autumn the plant dies down to a small compact head, from which, as soon as spring opens, a crown of vigorous leaves is pushed, from the centre of which rises one or flower spikes, which soon develop stout stems bearing globular heads of reddish pink flowers with a pale yellow centre."

The seeds of the primrose should be sown in pots of moist loam early in the spring. The pot should be covered with a pane of glass and set by the north window of a moderately warm room. Transplant them as they grow large enough, and keep in a shady place until fall, and then place them in the

vinc  
They  
all w

Si

Rou

noid

delig

of a

met

the

sumt

trans

plant

It g

grass

the

dro

ing

some

plant

of at

sible

hours

gives

woul

thing

pea,

ever

the

botan

consi

until

ter or

am st

it ma

ntere

reasu

glad t

To

No.

Most

flows,

them,

able t

plants

plants

window among your house plants. They will furnish a profusion of bloom all winter.

#### ANOTHER CANADIAN BELLFLOWER.

SIR,—Your mention of the Marsh or Rough-Leaved Bellflower (*C. aparinoides*) in the December issue of your delightful little magazine, reminds me of a rough-leaved little flower that I met with while in the neighborhood of the North Bay of Balsam Lake this summer. The flower, small and almost transparent, was pure white, and the plant small and prone, if not trailing. It grew on the clumpy tussocks of grass and earth that lay on and among the boulders to be found on the "drowned land" caused by the building of the Trent Valley Canal locks some years ago. Like most marsh plants it was very sensitive to change of atmosphere, and I found it impossible to keep it in water even for a few hours, though its hairiness and rigidity gives one an idea of hardness that would bear change. It is a beautiful thing, the flowers scarcely as large as a pea, and pretty numerous, scattered all over the plant and exactly the shape of the common Hare-bell. Not being a botanist, I did not know whether to consider this plant a Hare-bell or not until I read your interesting little chapter on "The Bell-Flowers," but now I am sure of it, and send you word where it may be found for the sake of others interested as I am in all our wild floral treasures. If it is known I should be glad to hear its specific name.

Toronto,

S. A. C.

**NORTH WINDOWS FOR PLANTS.**—Most plants will do well in west windows, if the conditions are right for them, but north windows are not favorable to the growth of ordinary house plants. Ferns, and many kinds of plants cultivated for their foliage, will,

however, succeed in north windows. Many kinds of flowering plants that have been raised elsewhere, and have been brought to the blooming stage, will then flower freely standing in windows with a northern aspect. Among such plants may be mentioned Hyacinth, Tulip, Rose, Fuchsia, Pelargonium, Camellia, Calla, Chinese Primrose, Cineraria, Azalea, Orange, &c.—*Vick's Magazine for October.*

#### THE FORGET-ME-NOT.

The flower which we now call the "Forget-me-not" (a name which originally appertained to the Speedwell) has become inseparably connected with the flower, borne on the wings of the following poetic legend: A knight and his lady-love, who were on the eve of being united, while strolling on the bank of the blue Danube, saw a spray of these pretty flowers floating on the waters, which seemed ready to carry it away. The affianced bride admired the delicate beauty of the flowers, and regretted their fatal destiny. At this point the lover did not hesitate to plunge into the stream. He soon secured the flowers, but the current was too strong for him, and, as it bore him past his despairing mistress, he flung the fatal flowers on the bank, exclaiming, as he swept to his doom, "*Vergiss mich nicht.*"

"And the lady fair of the knight so true,  
Aye remembered his hapless lot:  
And she cherished the flower of brilliant hue,  
And braided her hair with the blossoms blue,  
And she called it Forget-me-not."

IF ROSES are wilted before they can be placed in water, immerse the ends of the stalks in very hot water for a minute or two, and they will regain their pristine freshness.—*Globe.*

A FLORAL SCROLL of white roses and chrysanthemums, with the inscription

"Finis" upon it, which was sent to ex-President Arthur's funeral, and was regarded as the most conspicuous and elegant of all the floral pieces, came from the Chinese Minister.—*Toronto Globe.*

## Trees and Shrubs.

### SUITABLE TREES FOR THE LAWN.

P. E. BUCKE, OTTAWA.

IT appears questionable to many whether trees should be planted in the lawn or not. After all it is perhaps a matter of taste. Where the area is confined and a rage for tennis exists, requiring a neatly-kept plot without interruption for boys or ball, trees are of course inadmissible; but for such people as have grounds sufficiently extensive to be devoted in part to pleasure, and in part to the beautiful, there is nothing more handsome for the eye to rest upon than judiciously selected trees—the word judicious is used advisedly, as the size of the trees selected, when grown, should be in accordance with the area in which it is planted. No one should plant a forest, elm or horse-chestnut, in a seven by nine lot.

Before going further, I would remark that beginners in planting are apt to be too profuse, forgetting that in a few years hence the young sapling will become a spreading oak or an umbrageous pine. In large grounds, clumps of trees are desirable, but in more circumscribed places, single specimens are more ornamental.

Some of the hardier varieties of lawn trees are:—

**WEIR'S CUT-LEAVED MAPLE** (*Acer Laciniata Weirii*), a weeping, graceful tree. It has been growing on the Parliament grounds here for several years on a very exposed high bluff where the north and east winds have full

sweep, but it has never lost a twig; the leaves are very deeply indented, the lower branches bending towards the ground, whilst those at the top of the tree are very erect.

### ASH-LEAVED MAPLE (*Acer negundo*).

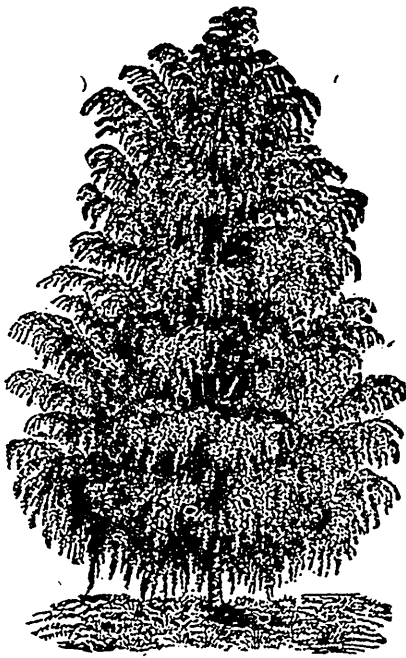
—There are evidently two varieties of this tree; the one, of Manitoban origin, is perfectly hardy in any part of Canada. It has no resemblance to the maple family in growth, bark, or leaf. It grows freely from seeds, which ripen late in autumn. It does not germinate until next year, whilst the other maples make a small plant the same year in which the seed falls. Its growth is very rapid, its form is irregular and spreading. This tree is being extensively planted in the cities and towns of the North-West. It is very easy of transplanting. When I was in Manitoba three years ago last August I found that large numbers of this tree had been set out in the streets of Brandon. The earth there was high, dry, and gravelly, and though there had been an almost continuous drouth throughout the summer, almost every tree was living. In its natural state it grows along the bottom lands and margins of streams. This tree grows freely from cuttings.

**THE TARTARIAN MAPLE** (*Acer Tartaricum*) is of the shrubby growth, and nearly, though not quite so hardy as the *negundo*. Its dwarf form makes it more suitable for small grounds.

**THE IMPERIAL CUT-LEAVED ALDER** (*Alnus Imperialis Laciniata*) is also suited for contracted areas. It is also pyramidal shape; its light, feathery foliage, which is deeply cut, and is of a greyish-green colour, makes it very attractive.

**THE CUT-LEAVED ALDER** (*A Laciniata*) is pretty and vigorous, and is considered one of the best of the Alder tribe.

Of all there is this bea well g twenty-stem is exceedi is suspe rich ha the yea long, sl like a v stem a white. is "the airy gra I fan pagatin great ru Some fe requirec and orn get the



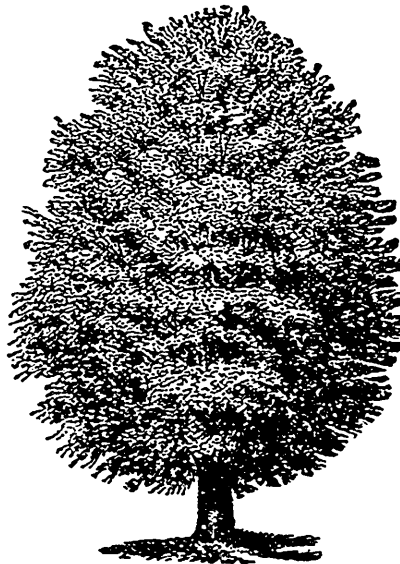
CUT-LEAVED WEEPING BIRCH.

*(Betula Laciniata)*

Of all the lawn trees in cultivation there is nothing that can compare with this beautiful and graceful tree. When well grown it attains a height of twenty-five or thirty feet; the main stem is very erect; the branches are exceedingly fine and delicate, on which is suspended a wreath of foliage and a rich harvest of green catkins early in the year. The weight of these on the long, slender sprays make the tree look like a very waterfall of verdure. The stem and larger branches are snow white. Scott says of this tree that it is "the acknowledged queen of all the airy grades," and he is quite right."

I fancy there is a difficulty in propagating it, or else there must be a great run on the nurseries for plants. Some few years ago the city of Ottawa required a couple of dozen for its parks and ornamental grounds, but could not get them at any price. I have a very

fine specimen on my lawn, and people in passing stop to gaze at it. One friend, seeing how dazzling white the bark was, asked me in all seriousness why I whitewashed that particular tree. I notice that some people who grow them, trim the stem up for eight or ten feet. It is difficult to spoil so beautiful an object, but such a course is down-right cruelty. The lower branches should spring from the stem about three or four feet from the ground; the tree would then make a perfect cone to its apex, the lower sprays sweeping the grass at its feet. The seed of this variety is infertile, so that no seedlings can be obtained from it. There are other forms of *Betula* that are ornamental, such as the *Purple-Leaved Weeping Birch* (*Pendula elegans*), and *Young's Weeping*, the latter very suitable for cemeteries when top-grafted, and *Betula Nana*, a small dwarf tree with many branches and dense foliage.

*(Concluded in next number.)*THE HARD MAPLE (*Acer Saccharinum*).



## THE MAPLE.

Oh, tenderly deepen the woodland glooms,  
 And merrily sway the beeches,  
 Breathe delicately the willow blooms,  
 And the pines rehearse new speeches ;  
 The elms toss high till they brush the sky,  
 Pale catkins the yellow birch launches,  
 But the tree I love all the greenwood above,  
 Is the maple of sunny branches.

Let who will sing of the hawthorn in spring,  
 Or the late-leaved linden in summer ;  
 There's a word may be for the locust-tree,  
 That delicate strange new-comer ;  
 But the maple it grows with the tint of the  
 rose,

When pale are the spring time regions,  
 And its towers of flame from afar proclaim  
 The advance of Winter's legions.

And a greener shade there never was made  
 Than its summer canopy sifted,  
 And many a day, as beneath it I lay,  
 Has my memory backward drifted  
 To a pleasant lane I may not walk again,  
 Leading over a fresh, green hill,  
 Where a maple tree stood just clear of the  
 wood—

And, oh, to be near it still !

—*The Varsity.*



THE SOFT OR SILVER MAPLE (*Acer dasycarpum*).

NOTE ON THE MAPLES.—Everyone

knows the Maple, and that in autumn its colored foliage is the glory of our Canadian landscape. But everyone does not know that there are a dozen or more varieties worthy of cultivation in our lawns and parks. There are three Canadian varieties, too well-known to need description, viz: The Hard Maple (*Acer Saccharinum*), a tree so large and compact in its habits of growth that in a small lawn it would hide every prospect and be wholly out of place. The Soft Maple or Silver Maple (*Acer Dasycarpum*), a tree of rapid growth, with slender branches, and foliage silver white beneath, a favorite tree for street planting; and the Red or Swamp Maple (*Acer rubrum*), a most attractive tree in early spring, with its clusters of bright red flowers, which appear before the leaves come out. It is of this variety that Bryant sang :

"When April winds grow soft,  
 The Maples burst into a flush of scarlet  
 flower."

There are besides several very desirable varieties of Norway and Japan maples worthy of cultivation, a description of which may be seen in Report for 1883, p. 96.

---



---

## Scientific.

---



---

### THE CURRANT BORER.

BY D. W. BRADLE, ST. CATHARINES, ONT.

IN THE March Number inquiries were made concerning this insect, especially for some method of combatting this enemy of our currant bushes more in accordance with our wishes than that of cutting away the stalks and thereby destroying the symmetry of our plants. We propose to give our readers a description of these insects, accompanied with cuts, which have been very kindly supplied to us for this purpose by the Entomological Society of Ontario. It is to be hoped that our readers will be enabled to recognize these pests at

sight, and to devise means of lessening their ravages.

#### OUR NATIVE CURRANT BORER.

is a very small beetle. Figure 1 shows it of the natural size at the left hand, and at the right magnified in order to present its markings more clearly. It may be found on the currant bushes early in June, and, being not very active, can be captured, its small size being the greatest obstacle, for by reason of its diminutiveness it escapes detection. From the eggs laid by this beetle small, white, footless grubs are hatched, having brown head and black jaws. These feed upon the pith of the stems, rendering them hollow, as many as half a dozen of them being frequently found in one cane. They remain within the stalk, changing into the chrysalis state without leaving it until, as little brown beetles, they come out in the end of May or beginning of June.



FIG. 1.

#### THE IMPORTED CURRANT BORER,

for it seems that somehow, as though we had not pests enough of our own, we must needs bring in some more from foreign countries, belongs to quite a different family of insects, as will be seen at a glance at Figure 2. This little moth is of a bluish black color, with three narrow golden bands across the abdomen. The wings are transparent, veined and bordered with black, having a coppery lustre. It may be found among the currant bushes about the middle of June, laying its eggs singly near the buds, from which the larvæ are hatched in a few days. These little worms eat their way into the centre of the cane,



FIG. 2.

spend the summer feeding on the pith, burrowing it out for several inches. Its appearance when full grown is shown in Figure 3 considerably magni-

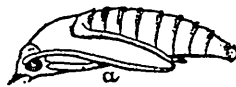


FIG. 3.

fied. The head and legs are brown, and there is a dark line along the middle of the back. After it has attained its full growth it eats a passage through the woody part of the stem and the inner bark, leaving only the thin outer layer untouched. It then changes into the chrysalis state—the chrysalis is seen at *a*, Figure 3, magnified. In this condition it remains until about the beginning of June, when the chrysalis, by wriggling itself forward, pushes through the thin outer bark which was left by the worm far enough to allow the moth to break its chrysalis covering and make its escape.

This is the life history of these insects, and it discloses but

#### ONE VERY VULNERABLE POINT,

and that is the fact that they pass the whole of their larval and chrysalis existence within the stem of the currant bush which they have injured, if not totally ruined, by eating out the pith. Inasmuch as it is well for the plant that these hollow canes be removed, it may be that by making thorough work in cutting them away and burning them while the insect is yet within that we may so reduce their number after a year or two as to make their depredations comparatively trifling. However, this involves the abandonment of the single-stem system of pruning, and forces us to train the plants with several stems, which seems to us on the whole

the preferable system in our climate, where heavy snows are so apt to tear off the branches where they are trained tree fashion.

If any prefer to train the currant to a single stem, we would suggest that they try the experiment of painting the entire plant, just before the leaves expand, with soft soap. If the eggs are laid in the soap it will kill them, but if these insects lay their eggs upon the new growth, of course there will be no soap there to do them any harm. Strong alkalis will kill the eggs of very many insects, and soft soap diluted to the consistence of a thick paint by the admixture of a strong solution of caustic soda is an excellent application for such purposes.

#### BEES AND FRUIT.

BY B. ROBINSON, LONDON SOUTH.

SIR,—I notice in the August number our valuable journal the question asked whether the Honey Bee has any beneficial influence on our fruit crop.

I see Mr. Ott of Arkona has answered the question in an interesting manner, and as I am like him a beekeeper and an amateur fruit grower, I also send you a few facts that may show the great importance of these industrious wonderful little insects.

First, *the perfect fertilization of our fruits without delay is all important either by the wind or by some insect.* Now the wind may fail, or act against the desired end, as Mr. C. Darwin shows, page 73, 74, Origin of Species. "Some holly trees bear only male flowers which have four stamens producing a rather small quantity of pollen, and a rudimentary pistil; other holly trees bear only female flowers, these have a full sized pistil, and four stamens with shrivelled anthers, in which not a grain of pollen can be detected. Having found a female tree exactly sixty yards from a male tree, I put the stamens of

twenty flowers, taken from different branches, under the microscope and in all, without exception, there were a few pollen grains, and in some a profusion. As the *wind* had set for *several days from the female to the male tree*, the pollen could not thus have been carried.

The weather had been cold and boisterous and therefore not favorable to bees, nevertheless every female flower which I examined had been effectually fertilised by the bees, which had flown from flower to flower in search of nectar" (or pollen). So you see in the case of a *reverse wind* the bees may give us a better crop of fruit than we would get without them. The above teaches us that our perfect blossom strawberries (if not wanted) need not be planted every fourth or sixth row with our pistillate varieties, for if the bee can fertilise the holly at a distance of sixty yards why not our strawberries at the same distance?

Secondly, *the bee surpasses all other insects in the amount of pollen used* and in her manner of gathering it. Pollen she must have, and get it she will, if she falls in front of her hive with her load, perished with the cold; for it is one of the principal foods of the larva bee; the brood will fail to mature, starve and die in 24 hours without it (or its substitute) and when once breeding starts in the early spring, the old bees will go out in the cold, wet weather to get it, thousands losing their lives by cold and never reach home, but still having fertilised thousands of blossoms in their chivalrous attempt to sustain the life of their young. (This is known to beekeepers as spring dwindling). The quantity of pollen used in a good colony is about 30 pounds I believe, as a queen will lay from 70,000 to 100,000 eggs in a season, and it is the principal food of the bee for the first 21 days of existence.

Then the mode of gathering the pollen is all important and interesting. The bee is covered with very fine hairs and when she alights on a flower the pollen adheres to the hairs; the bee then takes wing and hovers just above and close to the flower, while she takes the pollen off her body with her fore legs, and packs it on the thighs of her hind legs in little pellets, all the time scattering the pollen over the flower by the rapid motion of her wings. If she cannot pack the pollen (some kinds will not pack) she rolls herself in it. I have seen them come home so completely covered that they could scarcely find the entrance to their hive.

Thirdly, the complete fertilization of each plant by its own species.—A bee always collects her load from the same species of blossom whether it is strawberry, raspberry, apple, dandelion or clover, and if the season of one kind is drawing to a close she will come home with half a load of one kind rather than a full load of mixed pollen from many flowers. If a cell in the comb of pollen be cut open in a longitudinal direction it will be found packed in layers of different colors, and a beekeeper can tell what his bees are working on by the color of pollen they are bringing home. Thousands may be seen coming home in the season, some with light yellow, some with orange yellow, some with green and some with white pollen; but always with one color to each bee, thereby insuring a rapid and sure fertilization of a strawberry by a strawberry, a raspberry by a raspberry, &c. I think this of great importance to our strawberry growers, when we consider that our most prolific varieties are pistillate. I notice that Mr. Dempster grows the Crescent and that he keeps bees, perhaps they have something to do with his large crop of 6,000 quarts per acre.

A few more facts from that great naturalist, Charles Darwin, page 37,

Origin of Species. 20 heads of Dutch Clover fertilised by the bees yielded 2,290 seeds, 20 heads protected from them produced not one. Again, 100 heads of Red Clover produced 2,700 seeds, same protected from bees produced not a single seed! Now, a good colony will number 50,000 bees and will consume in the year about 80 pounds, and give to the beekeeper about 100 pounds of ripe honey. And as ripe honey is at least double the weight of honey fresh and thin from the flowers, the bees must bring home at least 360 pounds; add to this 30 pounds of pollen and 10 pounds of water and we have the total of 400 pounds; and as the bee carries about  $\frac{1}{4}$  grain troy each trip, we have the large number of 9,216,000 journeys made by a good colony of bees. How many flowers must they visit and fertilise for the benefit of fruit growers!

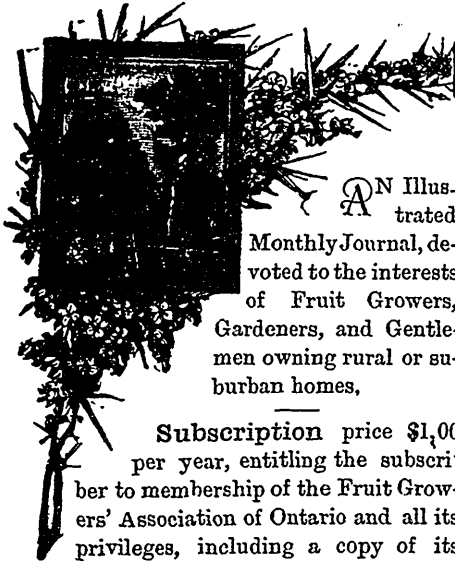
Last but not least, *What kind of bees are best for the fruit grower?* It is the Italian, because they are more energetic, the queens are more prolific, and consequently they need more pollen and food; and they will venture out to get it when the common black bee, would not show itself. And as it is in the spring that the fruit grower needs the assistance of the bee, the Italian is the one, for it will be out sunshine or shower. Prof. Cook of Lansing, Mich., says: "On May 7th, 1877, I walked less than half a mile and counted 65 Italian bees gathering pollen from dandelions, and only two black bees."

---

Young boys' stomachs are always in apple-pie order—*Rochester Post-Express*

A Man who was not of much account himself was forever boasting of his ancestry. A plain farmer, tired of this nonsense, asked him why his family were like a hill of potatoes. He gave it up. "Why," said the farmer, "the best part of them are under ground."  
—R. N. Y.

THE  
Canadian Horticulturist.



AN Illustrated

Monthly Journal, devoted to the interests of Fruit Growers, Gardeners, and Gentlemen owning rural or suburban homes,

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 premium plants and trees.

**New Fruits.**—The Editor of this journal will be glad to receive descriptions of new and desirable fruits or flowers, from every part of the country, accompanied as far as possible by samples of the same. Also, having one of the largest fruit farms in Canada he will be pleased to test any new plants or vines sent him for that purpose, and give the result through the pages of *The Canadian Horticulturist*.

**Window Gardening.**—A writer in the *Maryland Farmer* says that rooms are generally kept too warm for house plants. A temperature of 50° is high enough for Azaleas, Callas, Cinerarias, Carnations, Cyclamens, Ferns, Fuchsias, Geraniums, Holland Bulbs, Ivies, Roses, &c.; while 65° is the proper temperature for such plants as Begonias, Bouvardias, Caladuims, Coleus, Tropical

Ferns, Heliotropes, &c. Another cause of failure is too frequent watering. This should be done seldom, and when done a good generous soaking be given, so that the water will go through the pots. Once or twice a week would be often enough to repeat this operation.

**Shrubs for Side of House.**—The *Rural New-Yorker* says that few desirable shrubs succeed very close to the house, and recommends the Upright or Bush Honeysuckles as the best for this purpose. Their flowers are fragrant and their leaves remain fresh and green till nearly January. We would add for this purpose the Mock Orange or Syringa (*Philadelphia Coronarius*). This shrub belongs to the *Hydrangea* family, and will grow and thrive vigorously close to the house, and under its very eaves. Nothing is more beautiful than its full clusters of creamy white odorous flowers.

**Pansies.**—The *Gardeners' Monthly* tells us that the Pansy become a florists' flower about fifty years ago. At this time every new variety was given a name, just as the roses are now named. The first named Pansy was Lord Gambier and the second George IV. New kinds are now produced too easily to receive names. We had some exceedingly large ones this year in a shady spot. One that we measured was 2½ inches by three inches across the Corolla.

Reports of the Montreal Horticultural Society may be had at the winter meeting.

**Wilson Strawberry.**—Mr. Morden of Niagara Falls, South, writes: "We find that the Wilson has about given up the idea of running, which is of course a bad point. Crescent, Captain Jack and Manchester do very well in this respect." We read in an exchange that the Jewell is faulty in this particular. Can anyone tell us his experience?

Pioneer Fruit Picker.—Mr. Burgess writes: "I think if Madam Eve, or Mrs. Adam, had used the Pioneer Fruit Picker it would have saved her some trouble, as I understand it was only *choicc specimens* she used, and not the general crop."

Clean Manure!!—The *New Farm* makes the following extract from the *R. N. Y.*: "The cold well water which we are apt to look upon as the purest of all drink, is fairly reeking with disease germs . . . imperceptible to the taste or smell. . . . The ordinary farm vault is a veritable plague spot," &c.; and then adds: "If these disease germs are conveyed into vegetables instead of into water, is the case any the better? and yet the garden is fertilized by the same material which poisons the water without imparting 'taste or smell.' We believe in using clean fertilizers on crops for human food." Our exchange would deprive our gardeners of the most valuable manure they can possibly use by this curious statement. Who ever heard of garden vegetables taking up from the soil any disease germs or other elements foreign to their natural constitution?

A Toronto Lady writes: "Allow me to express my pleasure and sense of the usefulness of such information concerning the cultivation of window and other desirable plants, as Mr. Hermann Simmers gives of the Easter Lily in the December issue. Florists do themselves great injury, both in guarding their methods of growing popular flowers, and in sneering at, or writing over the heads of amateurs, as is too frequently done. The more flowers we are successful in growing, the more we shall buy."

Fugigation for Aphides.—Eben Rexford writes in the *Orchard und Garden* that he has found nothing so satisfactory for ridding the greenhouse

of plant lice as fumes of tobacco. Kerosene emulsion, tobacco soap, tobacco water, all effectual enough and suitable for outdoor use, are too dirty to be used inside. The plants should be well sprinkled first, and a dense smoke left in over night, then the death of the aphid is certain.

#### PROTECT THE BIRDS.

A SOCIETY has been formed in New York City for the protection of birds. It is called the Audubon Society in honor John James Audubon, the great American naturalist, and it originates in a desire to put a stop to the wholesale destruction of our useful and ornamental birds, which just now threatens to rob our yards and forests of a great portion of their charms.

This savage butchery of birds for uses of ornament and fashion is now carried to an extent that most thoughtless devotees of fashion, were the facts once laid before her. We say her, because it is kind, sympathetic, compassionate woman who shrinks from brutality, and is naturally the champion of the beautiful in nature; it is she, we say, who encourages this murderous business.

Here are a few figures to startle the most thoughtless, selected from the Society's circular:

"Although it is impossible to get at the exact number of birds killed each year, some figures have been published which give an idea of what the slaughter must be. We know that a single local taxerdimist handles 30,000 bird skins in one year; that a single collector brought back from a three months' trip 11,000 skins; that from one small district on Long Island about 70,000 birds were brought to New York in four months' time. In New York one firm had on hand February 1, 1886, 200,000 skins. The supply is not limited by domestic consump-

tion. American bird skins are sent abroad. The great European markets draw their supplies from all over the world. In London there were sold in three months from one auction room, 404,464 West Indian and Brazilian bird skins, and 356,389 East Indian birds. In Paris 100,000 African birds have been sold by one dealer in one year. One New York firm recently had a contract to supply 40,000 skins of American birds to one Paris firm. These figures tell their own story—but it is a story which might be known even without them; we may read it plainly enough in the silent hedges, once vocal with the morning songs of birds, and in the deserted fields where once bright plumage flashed in the sunlight."

As horticulturists, it is our duty to work in harmony with such a society as this, for most birds are our friends and very few are our enemies. If only our lady friends would content themselves with wearing English sparrows as decorations for their hats and bonnets, we could pass it by; but no, the useful and the beautiful birds are chosen without regard to anything but the dictates of Madam Fashion.

A careful count was made of the number of visits made by the parent Martins to their nest in a single day, and it was found to amount to three hundred and twelve, and each time bringing insects for their young! Already these insects nearly ruin our fruit crop; and who can predict the result if we are deprived of the friendly aid of the birds?

The following three objects are included in the pledges signed by the members of the Society, viz., to prevent as far as possible:

"(1) The killing of any wild bird not used for food.

"(2) The taking or destroying of the eggs or nests of any wild birds.

"(3) The wearing of the feathers of wild birds. Ostrich feathers, whether from wild or tame birds, and those of domestic fowls, are specially exempted.

"The Audubon Society aims especially to preserve those birds which are now practically without protection. Our game birds are already protected by law, and in large measure by public sentiment, and their care may be left to the sportsman. The great aim of the Society is the protection of non-game birds."

Anyone wishing to join this Society may address it at 40 Park Row, New York City; its work has our heartiest approval.

Still Wanted.—More copies of January, April, August and October numbers of year 1886.

A Stock of Sample Copies of back numbers of the *Canadian Horticulturist* sent free to any one who will distribute them with the object of enlarging the circulation of this journal and of increasing the membership of the Fruit Growers' Association.

Michigan Horticultural Society.—Mr. Garfield has sent us the local report of this interesting meeting, held 1st December last, and we hope to find room for some extracts in our February Number.

Appreciative.—Mr. Allan Chapman, Deans, writes: "The *Canadian Horticulturist* is a little book that is always welcome here. It is so plain and practical that the most unexperienced can always learn something from its pages."

Mr. A. Walker, Metcalfe: "I am much pleased with the *Canadian Horticulturist*. This is a very cold part of Ontario, and if the Vladimir cherry succeeds here we shall be very thankful to the Fruit Growers' Association."

A. J. Collins, Listowel: "I am better pleased each year with what I receive as to information and presents."

These are but samples of expressions in the dozens of letters pouring into our office every day.

A Correction.—Mr. John Croil, Aultsville, writes: "I am requested by Mr. Beall to correct an error which, quite unintentionally, appeared in my letter in your December Number. I gave Mr. Beall credit for raising 1,600 quarts of strawberries on one-eighth of an acre. Give the honest man only his due. He claims only 800 quarts. *Half as honest* I'll try to be, and acknowledge to be far behind him, even at these figures.

## Question Drawer.

*This department is intended as an open one to every reader of the "Horticulturist" to send in either questions or answers. Often a reader will be able to answer a question which has been left unanswered, or only partially answered by us. For convenience of reference the questions will henceforth be numbered, and any one replying or referring to any question will please mention the number of it.*

1. Treatment of an Apple Orchard.—*Is top dressing with stable manure, commercial fertilizer sufficient for an apple orchard in grass; or would it be better cultivated? The orchard is fifteen years old. My neighbor thinks that the injury done by the plough to the roots and branches will not be compensated by the benefits of cultivation.*

R. BRODIE, St. Henry, Montreal.

If an apple orchard has been properly cultivated and cared for until it is fifteen years old, so that it is now in a thrifty condition of growth, it will be far better seeded down, and treated with an annual top dressing of manure. But if it has been neglected and consequently stunted in growth, it may need the stimulating effect of high cultivation for a year or two in order to bring it into a healthy condition. The greatest care is always necessary to avoid either scraping the trunk and limbs with harness, or cutting off the numerous far

spreading roots by ploughing too deeply. Ploughing an orchard is an evil, but sometimes unavoidable.

2. Buckthorn Hedge.—*Will cows browse a buckthorn hedge?*

Mr. W. E. Wellington, of Toronto, says: "I think they will browse the new growth before it hardens. After the hedge has age, or the wood has ripened up well, they cannot injure it; but unless protected when it is young, and making succulent growth, cattle would be very apt to nip it just as they do the Honey Locust."

### REPLIES TO PREVIOUS QUESTIONS.

6 (Vol. IX). Apples for Napanee.—I take great pleasure in reading the *Canadian Horticulturist*, and recommend it to my friends. I am surprised that you recommend Alexander as a winter apple for Napanee. It is a fine showy apple with us, some specimens measuring 16 inches in circumference; but it is not a winter apple by any means. But I have a kind, a new Russian, called Wolf River, not so large as the Alexander, a better keeper, and a heavier bearer, I would recommend Ben Davis before Walbridge; it stood the past winter very well with us, along side of Wealthy and other hardy sorts. I had the Yellow Transparent ripe on the 28th July, but it required near market.

R. BRODIE, St. Henry, Montreal.

*Note by Editor.*—The Alexander is not a winter apple; but in giving a list to cover the season, we placed it between the Duchess of Oldenburgh and the Wealthy. Will it not keep till December grown as far north as Montreal?

12 (Vol. IX.). Grapes for Orillia.—Mr. Wm. Graham, in the last Report of the Montreal Horticultural Society, recommends the following list for northerly latitudes, viz.: Delaware, Concord, Rogers' 9, 15 and 19, as being thoroughly



reliable varieties. He much regrets that the Champion has been so largely planted about Montreal, as it has no merit beside earliness.

Mr. Thos. Beall, Lindsay, writes: "The reply to question 12 seems to convey the idea that Orillia is not suited to the cultivation of grapes generally. The climate and soil about that town is well suited the cultivation of any varieties that ripen with or soon after the Concord. You would see at their annual Fair such samples of well grown and well matured grapes as you would find some difficulty in excelling even in Grimsby." Mr. Beall should have named the five grapes which he would recommend for Orillia.

---

## Review.

---

*We will gladly give our candid opinion of any books, magazines or catalogues received, especially if they are likely to interest or benefit Canadian fruit growers, but will not insert cut and dried reading notices in favor of any publication whatever.*

### BOOKS.

**HOW TO GROW STRAWBERRIES**, by Geo. R. Knapp, Greenfield, Mass., price 25 cts. This is a most useful little book of fifty-four pages, and should be in the hands of every strawberry grower. It deals, in a most able manner, with every detail of strawberry growing, from setting the plants to marketing the fruit. Under the head cultivation, Mr. Knapp urges the *importance of cultivation after the fruiting season* and of continuing it to freezing weather. Most strawberry growers neglect their beds at this time of the year, and we believe thereby make a great mistake. The buds for the coming season's fruit crop are formed in the late summer, and every stroke of the hoe, and every round with the cultivator, adds to the number of quarts of fruit that will be harvested the following season.

Mr. Knapp's estimate of an *average profit* of \$600 per acre is altogether too high for us in Canada, whatever it may be for growers in the vicinity of New York City. Ten thousand quarts to an acre, at an average of 10 cts. per quart, continued for three successive years, looks fine on paper, but how many of our Canadian growers, we would like to know, ever get anything like half that quantity, or half that price, on an average in field culture.

We object decidedly to the practice among our fruit growers, especially those who have plants to sell, of setting forth the brightest and fairest side of their business in such a manner as to lead unexperienced persons to embark in a strange business to their great chagrin and financial embarrassment. It is high time that some of the failures of fruit growers were made prominent enough to warn over-zealous enthusiasts that the fruit business needs as much brain and muscle for success as any other industry, and a good deal more patience.

Mr. Knapp's book treats also of insect enemies and diseases of the Strawberry, with a description of all best varieties of strawberries that have been tested. On the whole we highly commend it.

**HOW TO PROPAGATE AND GROW FRUIT**, by Charles Green, Rochester, N. Y., price 50 cts., is another of those books which contain a great amount of valuable information in a small compass.

**ANNUAL REPORT of the Board of Regents of the Smithsonian Institution**, Washington, D. C., in two large volumes, one of which is devoted to the Smithsonian Institution proper, and the other to the U. S. National Museum.

### PAMPHLETS AND MAGAZINES.

*Agricultural Returns to the Bureau of Industries*, Nov. 6, '86, A. Blue, Secretary.—This includes a full Report

concerning Fruit and Fruit Trees in Ontario for the season just passed.

*Arthur's Home Magazine*, published by T. S. Arthur & Son, 920 Walnut street, Philadelphia. January number is full of interest and well illustrated. Its high moral tone makes it a desirable visitor to the family circle.

#### CATALOGUES.

*Official Catalogue* of the Canadian Section of the Colonial and Indian Exhibition, received with the compliments of Sir Charles Tupper.

*Greenhouse Heating Apparatus*.—Hitchings & Co., 233 Mercer street, New York City.

*Landreth's Seed Catalogue, 1887*.—D. Landreth & Sons, Box 1623, Philadelphia, Penn.

*D. W. Beadle Nursery Co.*, St. Catharines, Ont., neatly got up and contains an interesting descriptive list of trees, shrubs and plants for sale at these nurseries.

---

## Scraps of Fun.

---

A Boston Dude was making an evening call upon a Beacon street young lady last week, and among the many subjects which came up for intelligent discussion was the chrysanthemum show.

"Have you visited the chrysanthemum exhibition yet?" asked the young lady.

"Oh, dear, no," he said, "I find such things very trying, y' know; I am not what you call a literary man at all, and such performances are a boah, y' know."

"It doesn't require a very pronounced literary taste to appreciate a chrysanthemum show," said the young woman with a tired glance at the clock.

"No? Well, perhaps not so much a literary taste, y' know, as a fondness for—for—the antique—the ancient—

the—the classical, y' know," replied the slim, trying to hide his feet.

"I do not see that the 'antique,' the 'ancient,' or the 'classical,' as you are pleased to call it, has any particular connection with such a display."

"Well, possibly not very much y' know," he assented, knocking a piece of bric-a-brac off the table; "it all depends on how one looks at those things, y' know. By the way," he continued, "who is it that plays the part of Chrysanthemum?"

"You seem to be laboring under some mistake," replied the young lady politely. "It is not a play, simply an exhibition of flowers bearing that name."

"Bah," said the slim, "I had obtained the idea that it was something of the nature of a Greek tragedy, y' know."

A little later he bade her good evening, and while on his way home a gust of wind blew him against a lamp-post and killed him.—*Philadelphia Call*.

**Indefinite Quantities.**—A barrel of apples, a quart of strawberries, a basket of peaches, a box of cranberries, a box of huckleberries, a quarter's worth of eggs, a dozen eggs.—*R. N. Y.*

**Not Exactly Tobacco.**—A young lady from the city was visiting a farmer who had a very extensive tobacco plantation. The farmer had gotten out the buggy and was showing her over the place.

"Oh," she said as they turned into the lane, "that is another field of tobacco, isn't it?"

The farmer looked in the direction indicated and replied: "That there? No, marm—er—that—is—not exactly."

"'Not exactly.' What do you mean by that?"

"Why, ye see," said the farmer, with a significant grin: "That there's a cabbage patch."—*Ohio Farmer*.

**To Be Shaken Before Taken.**—The apple on a lofty bough.—*New Age*.

## Notices.

### THE WINTER MEETING

of the Fruit Growers Association of Ontario will be held at Chatham, Ont., on the second Wednesday and Thursday in February, 1887, at 10 a.m.

Among the subjects proposed for discussion in the

#### DAY MEETINGS

are the following, subject to revision :

(1) *State of Fruit Culture* in the County of Kent, kinds grown, quantity shipped, &c.

(2) *Plums*—Best modes of destroying the Curculio. Is any variety Curculio proof?

(3) *The Apple Spot*: On what varieties has it appeared? What varieties are wholly free from it? When a tree is once subject to it, does it ever recover?

(4) *Fungicides and insecticides*.

(5) *Are Apple Orchards Profitable?* What is the average crop per acre? Cause of their barrenness in some parts of Ontario. Reinvigorating old orchards.

(6) *Value of Apples* for feeding stock.

(7) *Russian Fruits*—Which ones have been proved of decided value for our Northern Sections?

(8) *Apples and Pears*—Six kinds of each best for (a) home use, (b) market.

(9) *Grapes*—Is there danger of overstocking the market. The best new varieties.

(10) *Methods of Planting, Cultivating and Pruning Small Fruit Plants*.

(11) *The Aphis* on the Cherry leaves. Extent of the plague. Best means of checking it.

(12) *Commercial Fertilizers* for Garden and Orchard.

(13) *Huckleberries* for the Garden.

(14) *Points* to be observed in judging fruits.

(15) *The Fruit Garden for Home Uses*—What to plant and how?

It is proposed to devote the

#### EVENING SESSION

to addresses and discussions on such subjects of general interest as the following :

(1) *The Canadian Fruit Exhibit* in London, Eng., and Prospects of the English Market for Canadian Fruits.

(2) *Horticultural Life in England*.

(3) *Chrysanthemums*—How to grow.

(4) *Roses*—The best novelties. Are any of them decided acquisitions?

(5) *Flowering Shrubs* for the lawn and how to group them. Latest introductions.

It is desirable to have a

#### SHOW OF FRUIT

in connection with the meeting, especially of any new or desirable kinds. Anything sent for this purpose at the proper time to the Secretary at Chatham will have express charges paid by the Association.

We hope to be favored with visits from

#### DELEGATES

from other Societies. Mr. Charles Garfield writes that Pres. P. P. Lyon of South Haven will represent the Michigan Horticultural Society.

There will be a *question box* on the Secretary's table to be opened at intervals.

#### PREMIUMS.

The premiums to be distributed among the members of Fruit Growers' Association of Ontario in the spring of 1887 are the following:—(1) Tree of Vladimir cherry, (2) Dahlia, (3) two plants of Hilborn raspberry, (4) a one-year-old Niagara grape vine, (5) a new single-flowered Geranium, (6) three packages of Flower Seeds—Primula Cashmeriana, and others. Every subscriber should make his choice when sending in his subscription.