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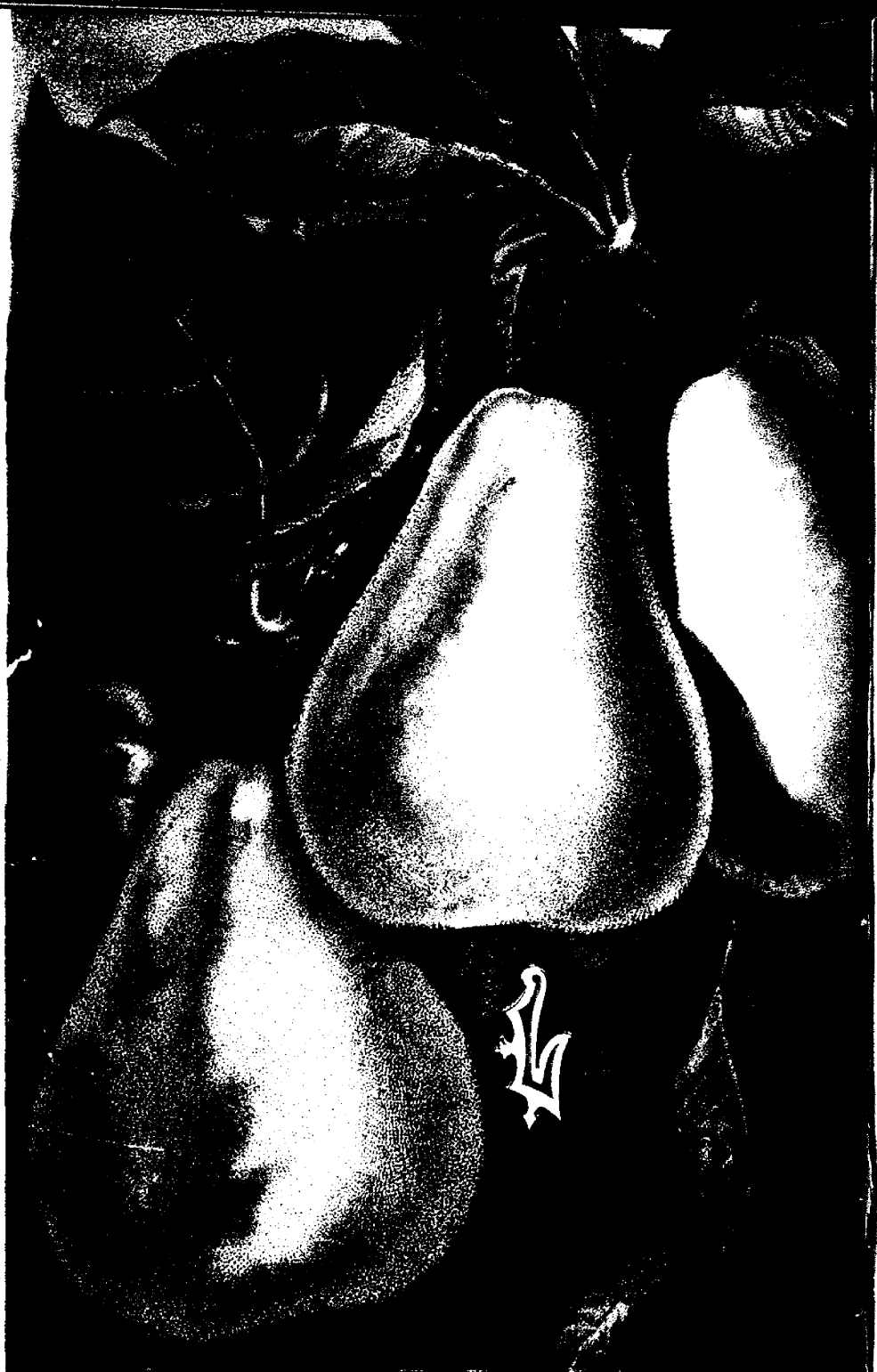
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The earliest large Pear. The largest early Pear.
* The most beautiful of all Pears. *

THE Canadian Horticulturist.

VOL. IX.]

DECEMBER, 1886.

[No. 12.]

New Fruits.

THE LAWSON PEAR.

The Lawson Pear is another of those new fruits which have not yet been tested in Canada; but, if it has all the excellences claimed for it by its propagators, it will be the leading market pear of its season.

The great objection to all our early pears that ripen before the Clapp's Favorite and the Bartlett is their small size.

The Rostiezer is perhaps the best in quality for dessert of all our tested early summer pears. In flavor, it is equalled only by the famous Seckel, which was at one time so popular as an autumn dessert pear. When the Rostiezer is well known among consumers, it is eagerly sought for; but when placed in a new market it is very unsalable, on account of its small size and poor color.

The Oslands Summer is a very good old pear, ripening early in August and a little before the Rostiezer. It is larger than the latter, and takes on a better color, being of a clear yellow with a warm cheek, but not quite equal to it in flavor. In our grounds it has

been quite subject to blight and not very productive; while the Rostiezer, on the other hand, seems to be comparatively free from blight, and is an abundant bearer.

The Margaret is a new summer pear, of medium size, and very highly commended as the finest of its season, which is about the last of August. We are testing it, and hope to report later concerning it.

The Tyson, an old and well established pear, is just now receiving many encomiums among our exchanges, but we do not value it very highly. It certainly is a fine grower. We have some trees twenty-five years planted, which are about thirty feet high and bear heavy crops annually, but the fruit, though a good size, has a poor color, and it comes too near the Bartlett season to command a high price.

We have thus briefly spoken of the best of our early summer pears to show that there is room for one of good size, good quality and beautiful color.

Now all these excellences are claimed for the Lawson. The color is said to be a most beautiful crimson on a bright yellow ground, and the time of ripening about the 1st of August. It is also claimed to be an annual bearer.

It derives its name from Mr. John Lawson, of Ulster County, N.Y., who formerly owned the farm on which the original tree still stands. The tree is thought to be about 100 years of age, and has never been known to blight.

The pear is certainly desirable, provided it bears out all these characteristics and is sufficiently hardy for our Canadian climate.

THE EARHART EVER-BEARING RASPBERRY.

The *Rural New-Yorker* of 23rd Oct. gives this raspberry a good puff. It claims for it the following points of excellence, (1) hardiness, (2) thrift, (3) productiveness, (4) better quality than the Gregg.

But the great point, in which it is claimed to excel them all, is its wonderful second crops on wood of the current year's growth. The main crop ripens about the last of June, and the second crop commences to ripen about August 15th and continues for about six weeks. On one cane over 500 berries were counted on the 16th September last, and altogether it is made out to be a wonderful acquisition to the garden, giving a continuance of fruit for the table all summer long.

Now we always read statements in the *Rural* with the greatest confidence, because it gives its opinions, as we also aim to do, without fear or favor. But we should require the experience of more than one season to establish our confidence in the wonderful everbearing qualities of the Earhart.

Why, only a few days ago we read

of a gardener in Wingham, Ont., picking a fine lot of second crop raspberries in his garden about the 16th October; they were literally loaded with fruit and not Earharts either. The fact is, this is an unusual season for second crops. A neighbor of ours, Mr. Snyder, has plenty of second crop strawberries now (Nov. 12) on his plants; and another Mr. Sardis Smith, has an apple tree with a second crop of apples, of fair size and ripe.

This peculiar phenomenon extends to England also, for we read in the *London Standard* 11th Oct. "the extraordinary mildness of the weather in Dorset has produced some curious phenomena. Strawberries in full bloom are very common in the south, and at Dorchester may be seen apple trees in abundant blossom."

Notes and Comments.

Back Volumes of "The Canadian Horticulturist."—Many of our readers will be pleased to learn that we can still supply back volumes. We have Vols. I., II., III., IV., VI., VII. and VIII. on hand. They contain vast stores of useful information for Canadian fruit growers. Any of these volumes complete, with the accompanying Report, will be sent, post paid, to any address on receipt of 75 cts., or, without Report, for 60 cts.

Correspondents will please make all articles as brief and pointed as possible. Nobody has time, in this busy Nineteenth Century, to read very long articles; besides, when they are very long they are sure to be dry. Let

"Little and Often" be the motto of our contributors, and let us have a bright, cheery journal, full of practical hints just adapted to our country, and a welcome visitor to every home.

Thanks.—We thank our many friends for the kind complimentary words concerning the November Number of *The Canadian Horticulturist*. We hope the appreciation will show itself in a practical way, by doubling our subscription list.

A New Contributor.—We are fortunate in having the promise of a series of articles on flowering bulbs, with illustrations, from Mr. Hermann Simmers, of the firm of Messrs. J. A. Simmers & Co., Toronto. The first appears in this number, with cut of Easter Lily.

All Subscriptions, new and old, are now due. Please renew at once, that we may know how many colored plates we shall need for our January Number. The address labels will indicate whether paid or unpaid, and be satisfactory receipts, we hope, for the money.

Annual Premium.—We receive a good many subscriptions without any accompanying choice of a premium for the spring of 1887. The choice must be made now that we may provide a sufficient number of trees, plants and vines for all subscribers.

A Seedling Plum.—Mr. W. H. Wylie, of Carlton Place, Ont., writes that he has a seedling red plum which has been cultivated by the family for fifty years. It is excellent in quality, a great bearer, and curculio proof. He will exhibit it at some future meeting of the F. G. A. of Ontario.

Display of Fruits and Flowers at Meetings of Fruit Growers.—At the last meeting at Cleveland, Ohio, premiums were offered for displays of fruits and flowers, and in consequence the hall was made most attractive. Local florists covered the stage with plants in bloom and decorated the room with floral ornaments. Among these was a floral parasol, lined with red flowers and covered with white ones nicely fringed, and resting on a base of ferns. May we not learn a lesson from this for increasing the attractions of our meetings?

Ladies at the Evening Sessions.—We notice that at the Winter Meeting of the Main State Pomological Society, several ladies were present in the evening, and some read essays on floral subjects, to which an evening Session was purposely devoted.

At the meeting of the Michigan Pomological Society meeting on the 30th ult., it was the design to have two or three evening lectures by eminent horticulturists to interest the general public, and thus to widen the influence of the Society.

Bagging Grapes.—President Earle said at the close of a discussion on grapes at Cleveland, that he had found bagging grapes a means of protection from rot. The cost was not a half cent a pound.

Deep Planting of Grapes.—Mr. J. J. Harrison spoke on this subject at the Ohio Horticultural Society as follows: "Three or four years ago we lost thousands of grape vines. Those vineyards where the Concord was planted deeply survived, while those that were planted shallow died. With us it is considered

essential to plant deeply." We, on the other hand, think there is quite as great need of caution not to plant too deeply, especially in heavy soil. What is the experience of other vineyardists in Canada?

Wanted.—January, February and May numbers of the *Canadian Horticulturist* for 1886. *Nine numbers* of the year 1885 will be given in exchange for these three; or three numbers of 1885 for any one of them. Each number for 1885 contains a colored plate.

A valuable paper has come to hand from Mr. P. E. Bucke, of Ottawa, on "Suitable Trees for the Lawn," which will appear in the January number.

Able Contributors.—Among other gentlemen, who will contribute to these pages during the year 1887, we have pleasure in mentioning the names of the following. viz. :—D. W. Beadle, W. E. Wellington, A. M. Smith, W. W. Hilborn, John Little, Hermann Simmers, P. E. Bucke, A. A. Wright and F. Mitchell. With such a staff of able contributors an era of unprecedented prosperity is before this journal, and of enlarged usefulness for the *Fruit Growers' Association of Ontario*.

Question Braber.

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.

9. The Influence of Stock on Graft.—*With us Grimes' Golden is below medium size. At our County Exhibition in October among the dozens of Grimes' Golden shown, was one dozen twice as*

large as some of the others. I asked the exhibitor, "How do you grow them so large?" "By top grafting on the Holley," was the reply. The Holley is a Nova Scotia seedling, a very large apple. What do you think of this?

C. E. BROWN, Yarmouth, N. S.

Neither the scientific study of the growth of the tree, nor the experience of our most reliable pomologists, favors the idea that the stock has any power to change the identity of the fruit grown upon the scion. It may have some influence upon habits of growth in certain ways. Thus grafting a standard pear upon the slow growing quince dwarfs its growth, and by hindering the free return of the sap causes it to be the more directed to the development of the fruit; so that in certain cases, as with the Duchess, the fruit is larger and finer thus dwarfed. A tender tree may also be made hardy by grafting it upon a hardy stock; thus the peach will sometimes succeed upon the plum stock where it would otherwise fail. But it is not at all probable that the Grimes Golden would grow larger upon the Holley stock, simply because the Holley stock bore a large-sized fruit. See, however, article by Dr. Hoskins, p. 233.

Mr. A. M. Smith says: "The influence of stock on scion is an old question, and one on which there is a difference of opinion. I think the quality of the fruit depends more on the vigor of the stock and the cultivation it receives and the soil than it does on any special variety on which it may be grafted." See Report N. S. A., p. 34.

10. The Most Able Pomologist.—*Do you know of any one who is familiar enough with varieties of apples grown under different conditions to be able to identify them?*

C. E. BROWN.

There is no man living equal in this respect to the late lamented Chas. Downing. Probably Mr. P. C. Barry, of Rochester, N. Y., is the most able pomologist of the present time.

11. Greenhouse and heating.—*For a greenhouse how far the depth in ground, what width generally, what glass and size is best to use, and what is the latest heater?* R. N. JAMESON, Whitby, Ont.

REPLY BY DR. BEADLE.

I must confess to being not a little puzzled over this questions which you have sent to me for answer. The proper answer hinges greatly upon the use which Mr. Jameson wishes to make of the structure, but of which he has not given the slightest hint. I will take it for granted however that he wishes to propagate plants, and reply accordingly.

If the soil will admit of it he may have the walls all in the ground, rising above the surface just enough to admit of a few inches projection of the roof so as to throw off the water. Such a house can be heated much more economically than where the walls are above the surface. In many soils it is impossible to go so deep because of water in the ground.

The interior width is most convenient when made at ten feet, allowing two feet for the walk and four feet for each of the tables.

I have used Chance's thick sheet glass, eight by ten inches and found it

perfectly satisfactory; but if hail storms are frequent at Whitby, it would be better to use an extra thick quality.

The latest heater is *steam*. I have not tried steam and cannot therefore give an opinion upon the merits of steam heating from personal experience. My greenhouses are heated with hot water, but I have only a small range of glass as compared with many florists, especially in the United States. Our horticultural periodicals have published a good deal of late on the question of steam *versus* hot water heating. From my reading on the subject I am inclined to the opinion that for heating a large establishment, especially in a climate subject to very great and sudden changes of temperature, steam will prove to be the safest, because a sudden and extreme lowering of the thermometer can be more speedily counteracted in every one of the houses and in every part of each house by steam than by hot water.

This matter of heating is largely a question of the extent of surface to be heated. A properly built flue will be the most economical method of heating a small area, where hard firing will not at any time be needed. The danger of setting the structure on fire, of cracking the flue so as to allow gases to escape from the burning fuel into the house, and of having one end of the house too hot and the other too cold, is always present when a flue is relied upon to heat any considerable amount of glass.

12. Grapes and Small Fruits for Orillia.—*In your December Number please give me the names of four or five grapes, a*

strawberry, and at least three raspberries that would succeed at Orillia.

JOHN S. WARREN.

Among the black grapes try Champion, Moore's Early and Worden; the first is poor in quality but very hardy, For red try Brighton or Lindley, and for white, Niagara or Empire State.

Perhaps the best strawberry for general purposes to plant at Orillia would be the Crescent Seedling.

In raspberries try the Turner for red, the Hilborn or Ohio for black. The yellow raspberries are not so hardy. (See article on Golden Queen on p. 241.)

13. Rust on the Strawberry Leaves.—*Are you familiar with the rust on the strawberry; and is it that which affects enclosed leaves?*

C. E. BROWN.

We have so little rust on the strawberry at Grimsby that we referred to Mr. Hilborn for his experience. He writes: "I have had strawberry leaves affected with rust the same as samples you sent every season since I began their culture, but have met with no serious results. The Manchester is perhaps more affected than any other sort; sometimes the crop of fruit will be somewhat less on plants that have been planted two or more years, but have not found any injury to the first crop grown on any of my plantations. More than one-half, of a hundred varieties I have grown, have shown more or less of that rust. Among those most affected are Manchester, Wilson, Windsor Chief, Atlantic, Arnold's Pride, Bright Ida, Lacon, Cornelia, Daniel Boone, Prince of Berries, Mrs. Garfield, and many others."

14. Pruning Currants and Gooseberry bushes for fruit.—*When should this be done, and what is the best method.* J. P. W.

Currant and gooseberry bushes may be pruned in either fall or spring. If in the fall it should be done before severe weather comes on, and if in spring, very early before the buds begin to swell.

In pruning the currant our practice is to cut back a portion of the new growth, say one half. This causes the stems to grow stocky, and to throw out a good many side branches for fruit bearing. Besides this, the old wood needs thinning out. Half a dozen stems to each bush are enough to leave.

With the gooseberry pretty liberal pruning is also necessary; not perhaps shortening in as with the currant, but thinning out freely both old and new wood; remembering always that the fruit is borne upon the latter.

15. Making cuttings of Currant and Gooseberry bushes.—*When should this be done? Will cuttings of five inches long grow as readily as those fifteen inches long? Should they be planted in the spring or fall?* J. P. W.

The best time, both for making and planting the cuttings would perhaps be in October; but even in that case they would be better mulched with some coarse strawy manure when winter sets in. If made early in December they should be packed away in sand or sawdust until spring, and then planted early. Cuttings of about one foot in length are surest to grow, if planted deeply, leaving only two or three buds above ground; but we have seldom

failed in our own experience, with cuttings five or six inches in length. We usually cut them at the time of our spring pruning in March and bury them in sand for a few weeks. Very few fail to grow, and any novice should succeed.

16. Grape cuttings.—*Should grape cuttings from fall pruning be planted now, and packed in sand until spring?*

J. P. W.

It will be safer to pack them in sand in the cellar, or bury them in dry sandy loam out doors, and plant them in spring.

17. Manure for Currant and Gooseberry bushes.—*Would sulphate of iron or bone dust mixed with ashes be the most economic manure for currants and gooseberry bushes in bearing, money value being equal.*

J. P. W., Hornings Mills, Ont.

18. *Ardisia Crenulata*.—*In the November Number you refer to A. Crenulata as a desirable house plant. Local florists do not know it, will you kindly inform me where it can be got.*

C. H. DUNNING, Toronto, Ont.

We think it cannot be purchased nearer than New York City at present. We asked Mr. Jas. Vick about it and he says "We do not grow it, and do not think it can be purchased in Rochester." Mr. E. S. Carman of *Rural New-Yorker*, writes "You can get the *Ardisia* of Peter Henderson & Co., New York, or of John Saul, Washington."

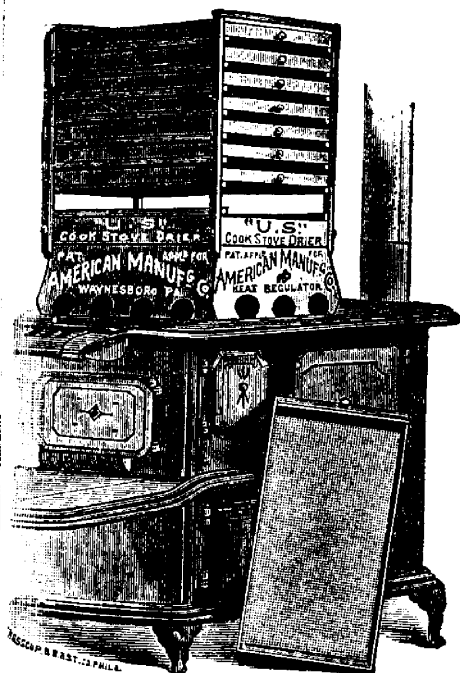
REPLIES TO PREVIOUS QUESTIONS.

1. Huckleberries.—Mr. Lovett, Little Silver, N. J., writes: "Please correct the error on page 248. I have the Bell and Cherry Cranberries, but

no Huckleberries. My many attempts to grow this fruit have in all cases resulted, the same as with your correspondent from Owen Sound, in failure."

Mr. W. A. Dempsey, son of Mr. P. C. Dempsey, of Trenton, Ont., says: "Wild Huckleberry plants can be got in quantity here at cost of labour digging them, say 50c. per 100 or \$4 per 1,000. There are a great many pails picked off my place each season. I like what is called the *Bill-berry* better, only that it mildews. The bushes are much larger; I have seen them about 8 feet high."

7. Fruit Dryer.—In order to answer this question, we wrote to the Ameri-



U. S. COOK STOVE DRIER.

can Manufacturing Co., Waynesboro, Penn., asking for a cut of their U.

S. Cook Stove Drier. Through the kindness of this firm we present our readers with the accompanying illustration, which may be interesting to many Canadian readers. The weight is only about twenty-five pounds, so that it may be easily handled by the servant or mistress. The trays are of galvanised wire cloth, and therefore will not rust or discolor the fruit. The price is \$7.

Flowers.

THE BELL FLOWERS.

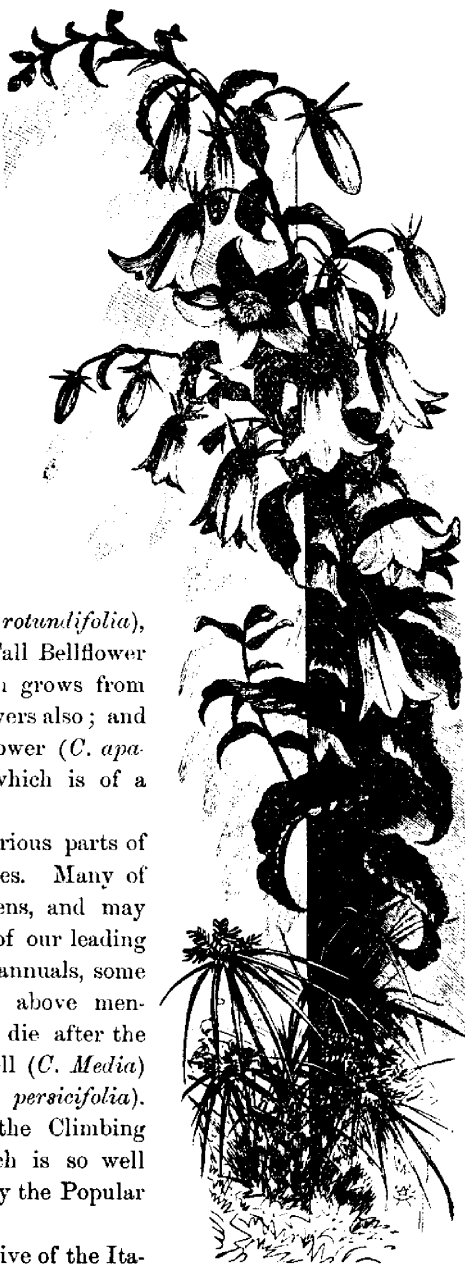
"With drooping bells of purest blue,
Thou didst attract my childish view."

There are only three species of the Campanula family common in our Canadian woods, viz., the Harebell, or Blue Bell of Scotland (*C. rotundifolia*), found on rocky, shaded banks; the Tall Bellflower (*C. Americana*), the stem of which grows from three to six feet high, with blue flowers also; and the Marsh or Rough-Leaved Bellflower (*C. aparinoides*), with lavender flowers, which is of a climbing habit.

But there are besides these, in various parts of the world, nearly 300 known species. Many of these are cultivated in flower gardens, and may be seen described in the catalogues of our leading florists and nurserymen. Some are annuals, some are perennials, like the Harebell above mentioned, and some are biennials and die after the second year, as the Canterbury Bell (*C. Media*) and the Peach-Leaved Harebell (*C. persicifolia*).

To this last class belongs also the Climbing Bellflower (*C. rapunculoides*), which is so well shown by the cut kindly loaned us by the Popular Gardening Co.

The name Campanula is a diminutive of the Italian *campana*, a bell, from the shape of its corolla.



CLIMBING BELL-FLOWER.

WINTER FLOWERING BULBS.

BY HERMANN SIMMERS, TORONTO.

THE EASTER LILY.

Among the varieties most suited for indoor culture, we may class the Easter Lily (*Lilium longiflorum*, *Harrisii*). This variety, on account of its easy culture, has of late years been given a prominent place by all amateurs; but there may be some readers of the *Horticulturist* who are not aware of its remarkably easy culture, and who would give it a trial if they only had some thoroughly explicit directions. We will endeavour to give some directions based upon a thorough practical experience in the cultivation of the Easter Lily.

Take a sufficient quantity of good rich loam to fill an ordinary pint pot



THE EASTER LILY.

about three-quarters full, add the remaining quarter, of ordinary sand, in order to prevent the earth from souring;

then place the bulb in the centre of the pot, care being taken not to press the earth under the bulb at all, so that the roots of the bulb will have easy growth. Press the earth firmly around the bulb, after which water thoroughly; then place the pot in a totally dark portion of a moderately warm cellar, temperature not to be lower than 40°, or in a box, which would require to be covered. Watering the pot would be necessary about once a week, or, if the mould is moderately damp, it could be left for about ten days.

After treating the bulb in this form for about eight weeks, it could be brought to the light, care being used not to bring it to the light suddenly, or else the stem will be forced too quickly, and not be able to hold the large truss of white flowers which would appear in about five weeks after the above treatment.

We might add that it is necessary to water it at regular intervals, at the same time that the other plants in the house, or conservatory, are watered; but not too much at a time, as the bulb is liable to rot with too much watering.

If, at times, the bulb does not show as quick a growth as is desirable, an application of some prepared plant food may be given it, when the difference will at once be noted.

The directions, as given above, may appear somewhat lengthy to the readers of the *Horticulturist*, but the actual cultivation of the Easter Lily will not be found greater trouble than that of other plants in general.

Toronto, 8th Nov., 1886.

THE HOLLYHOCK.

BY M. W. M., OWEN SOUND, ONT.

Upon a dry and withered stalk
There sat, in bright array,
The last of all the Hollyhocks,
To bloom alone and die.

To bloom alone, when none were left
Of all the floral band ;
And not a voice of summer bird
Was heard throughout the land.

And so, methought, we sometimes see
One far from friends removed,
While yet they might have lent their aid,
And in affliction soothed.

And, like the flowers, we all shall fade,
In winter's tomb be laid.
Yet we in Christ shall rise again,
In youthful bloom re-made.

Written for Canadian Horticulturist.

Fruits.

TIMELY HINTS.

Manure the Orchard.—Now is the time, when other work is closing up, to show kindness to the fruit trees. The trees have just exerted themselves in behalf of their owner, and now deserve their reward. Indeed, unless a top dressing of compost, or of wood ashes, is given them every year or so, they will be revenged by producing small, spotted, unsalable fruit.

Cleaning up all rubbish about the trees is also work for this season. Bits of corn stalks, straw, or brush about young trees, will encourage the depredations of the mice throughout the winter. These should be carefully cleared away, and a mound of fine earth packed closely about the trunk. Nothing will more effectually save the trees from the de-

predations of mice than this. Thousands of trees are annually destroyed in Canada every winter, in time of deep snow, through neglect of this simple precaution.

The old fashioned rail fence is an abomination about an orchard or garden. It accumulates tremendous banks of snow, and every tree within twenty feet of such a fence is a temptation to this despicable foe, the field mouse. The wire fence, properly built, is the best for an orchard. Once we agreed with a suggestion in the *American Agriculturist* that the wire should be fastened on rows of trees planted in line to take the place of posts ; but experience has taught us that this does not pay. As the tree grows, the wire is bent out about the staple, and breaks frequently, thus proving a constant nuisance. Good cedar posts are best of all supports for a wire fence. They may be set fifteen feet apart, if well braced here and there.

Keeping Winter Apples.—We frequently see it stated that apples will keep their fresh crisp state far better if pitted like potatoes, than if kept in the cellar. It is said that in Kentucky whole barrels of apples are frequently stored in pits in this way. A trench is dug one foot deep, a layer of straw put in the bottom, and the barrels laid in end to end ; then a thick covering of alternate layers of straw and earth is made, sufficient to keep out the frost, and to shed the rain.

Apples so kept are said to come out wonderfully fresh and crisp, and to keep much longer than by the usual method. Perhaps some of our readers would like to experiment, and find out

whether the plan would succeed in our more rigorous climate.

Grape Cuttings.—Most propagators advise making grape cuttings in the autumn, and burying them until the spring, so that the cut surface may heal; or early in December, and packing them away in sand in the root cellar. No doubt this is the best time, but we usually have complete success with cuttings from wood pruned in March. We bury them as soon as the frost is out, and leave them two or three weeks. Scarcely any fail to grow.

Cuttings need to be about six inches long, and include two buds: those with one bud seldom succeed, except in a green house, or hot bed.

RASPBERRIES FOR MARKET.

BY W. W. HILBORN, ARKONA.

To grow the Blackcap raspberry for market I plant them in rows eight feet apart and three feet apart in the row.

If the soil is as rich as it should be for Blackcaps, this will not be too great a distance.

When they get to be full grown plants there will only be space enough left between the rows to gather the fruit and work around the plants.

When the new growth of the first year reaches twelve or fifteen inches in height, pinch it back; the second year after planting, allow it to grow about two feet high before pinching back. There is more danger of letting them get too high before pinching back, than there is in heading back too soon.

By keeping the plants down low the wind does not break them down so much

and they will produce a larger crop of fruit.

Give them good cultivation early in the season, stirring the soil often, and do not wait until the weeds spring up and force you to cultivate them. By moving the soil often, you promote growth, and weeds have no chance to get a start.

Cut out all old wood as soon as the crop of fruit has been gathered. Cultivate and plough the land, throwing the soil toward the plants.

By stopping cultivation early, the new wood or canes will ripen up well before winter comes on, thus enabling them to stand lower temperature without injury.

They will require nothing more until spring, when the bushes will need pruning back.

They should be well cultivated as early in spring as the soil will permit, and the cultivator kept going through them often, (once a week is none too often) until the fruit begins to color. Where mulch of either coarse manure or straw can be procured it should be placed around the bushes, on the land that cannot be reached by the cultivator, immediately after cultivating out the first time in spring. This will help to keep down weeds and retain moisture.

VARIETIES TO PLANT.

In recommending varieties to plant for market, I will only speak of those that have been well tested in many parts of the country, and say nothing about the new varieties, some of which are very promising.

Tyler and Souhegan are the best for an early crop, Mammoth Cluster for medium, and Gregg for late. The Gregg is a very large and productive berry, but it is not quite hardy in some localities.

Shaffer's is the best cap variety, all things taken into consideration, with which I am acquainted for canning purposes. It is a purple berry, and if left to get a little over-ripe it turns brown, which will materially lessen its sale in any market where it is not known.

RED OR SUCKERING VARIETIES.

These should be grown in about the same way as the cap varieties, but the rows should be only six feet apart. Do not, on any account, neglect to cultivate them as early in the spring as the soil will permit. Suckers form almost without number on their roots in the fall, and come almost to the surface of the soil (sometimes even showing above), and they begin to grow very early in the spring, and almost before you know it the ground will be covered with young plants, which take the substance away from the bearing ones. They should be cut off as weeds; and, if not allowed to grow in the fore part of the season, they will give very little trouble later.

Hansell is the earliest. It is not large, and it resembles the wild raspberries in its habits of growth, and it is not the best in quality. Yet, with all its faults, I believe it is the best early market red raspberry we have. It requires rich soil. Turner is not quite as early, but good in quality; it is larger and the

hardest of them all. It is not firm enough to ship to a distant market.

Cuthbert is the largest, latest and best market berry where it does not kill too much back with the winter.

OUR GARDEN AND ORCHARD.

BY JOHN CROILL, AULTSVILLE.

(Concluded.)

GRAPES.

With an assortment of fifteen kinds we have the same tale to tell. A large crop, beautiful bunches, but only about one-quarter of them reaching maturity. No vine is worth planting in our cold North that does not ripen its fruit by the middle of September. The Champion, of course, always does—*better it than none*,—the Hartford and Delaware generally. Moore's Early and Worden ripened well with us this year, and are a decided improvement on any we have had. All Rogers' Hybrids we have tried are too late in ripening—beautiful, many of them. Salem, Wilder, Agawam, Brighton and Massasoit, heavily laden and beautiful. All the more tantalizing to have them all destroyed by frost when just on the eve of ripening.

STRAWBERRIES.

We had seven kinds on three quarters of an acre. In future we will confine ourselves to the Wilson, Crescent and Early Canada. The latter for its only recommendation has earliness. It is a poor berry, and is liable to be destroyed by frost when in blossom. Our plants wintered well, and promised a good return; but we are far from boasting of the same. I'll venture to boast, however, of my friend Mr. Beall's crop—too modest he to boast of his own. He

had 1,600 quarts on one-eighth of an acre—just what I had on three-quarters of an acre, *i.e.*, nine six times told.

BLACK SPOT ON THE APPLE.

For many years this disease has been going on from bad to worse, till now our orchard hardly deserves the name.

Mr. E. P. Powell, of Clinton, the writer of a sensible letter on apples which appeared in the *New York Independent* of 23rd Sept., says:—

“If anything can be more gratifying than to see a row of these lovely apples in October it must be outside of the apple orchard. The fruit is superb in quality as well as beautiful.”

So said I ten years ago, but a different tale we have to tell to-day. Our once noble Fameuse seems to be played out. Spotted is no name for mine. Shrivelled up and black nearly all over, it is a cumberer of the ground and entirely worthless. In 1877 I gathered from two trees seventeen barrels of apples as beautiful as Mr. Powell describes, and sold them for \$51. My 200 trees will come short of yielding me such an amount this year. The St. Lawrence and McIntosh Red are not much better. The Tolman Sweet, which till this year escaped, is badly spotted. I am sorry to say even the Wealthy is spotted, although not to the same extent as the above kinds. The American Golden Russet is about the only healthy tree I have. They are entirely free from the spot, and bore heavily.

My own orchard and a few adjoining are more affected by the disease than any I know of, but the following re-

ports, which I received in answer to enquiries concerning the progress of the disease from parties in different sections, show the disease to be general:

Toronto.—Messrs. Stone & Wellington say: The spot on the Fameuse is worse this year than usual, and the fruit is much smaller. Our Wealthy apples at the nursery are not spotted at all.

Lindsay.—Thomas Beall: My Fameuse is much worse than ever before. I may possibly be able to see one-half of them, but I think I could not find one per cent. clear. The St. Lawrence are equally unsalable, caused by cracking. The Wealthy injured, but not to the same extent. Alexander both spotted and cracked.

Iroquois.—Dr. Harkness: The Fameuse are badly spotted; quite free in 1885. Have only a few Tolman; they are not spotted enough to injure them seriously. My Wealthy are not bearing yet; a neighbor had a few almost free from spots, a beautiful apple.

Montreal.—James Morgan, jun.: Fameuse apples are badly spotted in this section, especially on old trees. Wealthy, I think, are all right. Any that I have seen are clean and large, and I think will supersede the Fameuse in time.

Village des Culnaies, Co. L'Islet, P. of Q.—Auguste Dupuis: Our Fameuse are less spotted this year than last. Some native varieties are greatly spotted. Farmers whom I met at the horticultural county fairs complained bitterly of the great damage to their apples. They say that the spots are caused by the dampness of the temperature in

July, and the mists which cover the sand. We are near the St. Lawrence, which is twenty-four miles wide here; mists occur often when the breeze comes from the east.

Windsor, N. S.—I expected a report from Professor Hind, but it has not yet come to hand. From a friend, however, who visited him this summer, I learn that the disease is bad in that locality. He (the professor) says its iron the trees want, and claims to have found a cure by its application, of which we will report when we hear from him. Meantime, we are safe in trying the experiment.

WINTER PROTECTION OF GRAPES.

In reading the *Rural's* report of the meeting of the A. H. Society we notice that Mr. Geo. Campbell, a veteran grape culturist, spoke thus on this subject: "I advise winter protection for all vines. In mild winters they are improved, and in severe ones they are saved by it. I have long been convinced that winter protection is often the turning point between the brightest success and a complete failure. Nothing pays better. Injury from cold leaves the vine more susceptible to mildew and disease. In a general way, I advise growing the best kinds. These with the additional care can be readily grown, and they bring good prices, while others are a drug in the market."

Mr. Green said: "All have room for a grape-vine, No man with a house is without room for a grape-vine. There is no cheaper food for farmers, or their help, than grapes." Mr. Olmer: "Grapes should be grown by every-

body. (Applause.) I find great advantage in winter covering. I have 17 varieties, and lay them all down in winter." Mr. Campbell: "Grapes upon walls often escape the effects of cold and disease when others do not." Mr. Ford also believed in wall training and winter protection. "I grow grapes on three sides of every building I have. I never saw rot or mildew on vines near a building. I intend to plant along a high board fence and build a shed to extend partly over the vines." Mr. Vandemann said: "The north side of a building is the place to put any tender thing; it will succeed there when it will not on the south side, where the evaporating influences are greater. In nature we find that all tender plants grow on the northern hill slopes, none on the southern slopes." Several members spoke of the advantages in training grapes on walls and buildings, also on trees. Mr. Pierce: "Grapes will not grow in Ohio on the north side of houses."

[We may add that some of the finest vineyards in the Niagara District of Ontario have a northern exposure, with the Niagara Escarpment on the south side of them.—ED.]

PRUNING GRAPE VINES.

The *Floral Instructor* says: "The best time to prune grape vines is as soon after the leaves have fallen as possible. If left until spring it is apt to be too late before it is attended to, and there is always some loss of vigor in vines encumbered during several months with a large mass of useless wood."

[There are no doubt some advantages in pruning grape vines on fine days in the fall or early winter before severe cold has come. March in Canada is a very unpleasant month for the work; and if cut in April there is much loss of strength in "bleeding." But we much question the loss of vigor from the cause mentioned by our exchange.—
ED.]

THE GOLDEN QUEEN.

Mr. W. W. Hilborn, of Arkona, O., writes as follows concerning the Golden Queen Raspberry, and we are glad that some one in Canada is giving it a fair trial, so that we know for a certainty whether it is adapted to our climate. Mr. Hilborn says:—

"The Golden Queen has not been grown in Canada long enough to know how it will stand our winters. I planted two hundred of them last spring. They grew well, and bore quite a quantity of very fine fruit, about the size of the Cuthbert, and the nearest approach to Brinckle's Orange in quality of any yellow raspberry I have seen.

"They resemble Cuthbert in habit of growth, leaf and cane, except that they are lighter in color. Should they prove to be hardy they will, no doubt, be the best yellow raspberry we have."

NONSENSE.

(A humorous letter from Mr. D. W. Beadle.)

MR. EDITOR,—Do you not think it desirable that our horticultural papers should place their funny paragraphs in a column having an indicative heading, such as "FACETIE," or something of the kind, and not scatter them promiscu-

ously through the paper in such a manner that the unwary reader might mistake the paragraph for downright earnest? It is certainly allowable in an agricultural or even horticultural periodical to print nonsense occasionally, for you know

"A little nonsense now and then
Is relished by the wisest men,"

yet, unless properly headed, it may sometimes become misleading. For instance, I read the other day, in a very popular gardening paper, that we should "instead of selling old cast-iron at half-a-cent per pound, put small pieces near the roots of grapes, currants, gooseberries, and fruit trees; it is very beneficial." As a bit of facetiousness, this is all very well, but as a piece of practical utility it is sheer nonsense. It is hardly possible to find a soil in which there is not already a super-abundance of iron, so far as that mineral is required by vegetation; and the planting of small pieces of cast iron near the roots of trees is a veritable "carrying of coals to Newcastle."

Again, in the same paper, we find the inquiry, "What can be done to prevent the ravages of the currant borer?" answered as follows: "Scatter salt, say a teaspoonful, close around each bush two or three times through the season." This surely must be intended for a huge joke. It is a forcible reminder of the advice so often given to the small boy who is trying to catch a bird, namely, to "put salt on his tail." Yet this answer is printed in such a manner that the unsuspecting reader might be entirely misled by the

arrant nonsense ; and surely this is not justifiable.

It is not often that persons who are troubled with currant borers are familiar with the habits of the little pest, and, supposing this advice to have been given seriously by some one who knows, they may waste their time and patience sowing salt on the ground, close around each bush, two or three times through the season. It is very doubtful if it were sown directly on the backs, or applied to the tails, of the borers that it would cause them the least inconvenience, but sown on the ground, as close to each bush as possible, it most certainly would never come in contact with or even very near them, and could not by any possibility affect them in the least.

Once more. In the same number we are told, in answer to an inquiry, that the Schumaker Peach "is a free-stone and ripens about with Crawford's Early." Probably this is not intended as a joke, but is merely a specimen of the knowledge of the person who penned the answer. Now, the Schumaker Peach is not a free-stone, but is one of the semi-clinging stones, such as the Alexander, Amsden, Early Canada, and all that class, and ripens nearly a month before the Crawford's Early.

Nor is this all. The paper answers another enquirer and tells him that seeds of Walnut, Ash, Catalpa and Box Alder, *i.e.*, *Negundo Aceroides*, "must be planted in the fall or else mixed with earth and put out to freeze through the winter, and planted in early spring." This is just another bit of nonsense,

quite misleading if taken in earnest. There is no more need of freezing any of these seeds than there is of roasting them. In the case of the Walnut, it is important that the seeds or nuts be not allowed to dry, hence they should be mixed with moist earth and kept moist until planted, but they will grow just as well if kept in that condition in the cellar as if they are "put out to freeze." The Ash, Catalpa and Box Alder seeds may be kept in a paper in your drawer all winter and sown in the spring with just as much certainty of growing as if they were mixed with earth and put out to freeze.

Having grown all these from the seed and found them to germinate freely when treated in this manner, it seems unkind to advise a novice to take so much unnecessary trouble.

St. Catharines, Nov., 1886.

A NOVA SCOTIA LETTER.

The last few mails have brought us several kind letters from Nova Scotia showing how wide spread is the interest taken in our *Canadian Horticulturist*. Among these letters is one from a very old friend of our Association Mr. Charles E. Brown, of Yarmouth, from which we make one or two extracts. Speaking of the

SHIAWASSEE BEAUTY

he says :—"It is surprising what a number of valuable varieties of apples are accredited to the Fameuse as a parent. Of sixty-four kinds sent me from Michigan, the Shiawassee Beauty, a seedling of the Fameuse, appeared to me the most beautiful. The color is a lovely

shade of carmine, unlike any other apple I ever saw. The tree is said to be hardy, and the fruit to keep longer than the Fameuse, and to be free from spots and blemishes."

It is a most startling fact to apple growers to find how universally prevalent is that scourge of the orchard, the

FUNGUS SPOT ON THE APPLE.

We find from Mr. Brown's letter that not even the salubrious sea breezes can ward off this plague. He says:—"The crop of apples in this Province is very large this season, and in most kinds of high quality, with good color and size. Of late years, certain kinds, the Yellow Bellefleur for instance, formerly always exempt from spots, have become so much disfigured that they are worthless for export; the Fameuse is another of these and going out of use in the best fruit counties. At an exhibition in Digby County last week, I saw one collection of some twenty-five kinds, nearly all of which were more or less spotted, the apples were also small in size for the kinds. In this case I came to the conclusion that the trees were old, unpruned and neglected, and that the fungus disease was communicated to all kinds alike because unthrifty. It would be a wise man however who could give an exhaustive statement of the cause of, and remedy for, these fungus spots. I have the Early Harvest and the Fameuse in good soil and well pruned, the former utterly worthless, the latter will give me a small proportion of its crop in fair, clear fruit, but the great part will be spotted. Full exposure to sun and air

is essential to clear fruit, and perhaps severe pruning would be in many cases the sole remedy needed"

Let us hope that the late discoveries in science concerning these low forms of plant life, may give some basis upon which our scientific students of horticulture may solve these mysteries and provide us with a remedy. (*See editorial under "Scientific."*) This spot is spreading in Ontario from one kind to another. Beginning with the Fall Pippin and the Fameuse it has extended to the Rambo, Greening, Spitzenberg, Early Harvest, and even the Northern Spy. It utterly unfits an apple for foreign shipment, indeed a spotted apple can hardly be sold at home.

HONOURABLE APPOINTMENT OF MR. WILLIAM SAUNDERS,

FORMER PRESIDENT OF THE FRUIT GROWERS'
ASSOCIATION OF ONTARIO.

Our readers will all be pleased to read the following letter to the *London Free Press* from an Ottawa correspondent:—

"Prof. Wm. Saunders, of London, Ont., has just been appointed Director of the Experimental Farm Stations of the Dominion, and will assume the duties of his important office at once. His jurisdiction will extend over the stations in all parts of the Provinces, under the direction of Hon. Mr. Carling, Minister of Agriculture. He was engaged last fall in visiting institutions of a similar character in the United States, and prepared an exhaustive report on his observations. That report was laid before Parliament at its last session, and not only there, but from

the press of America and Great Britain, received the highest commendations for its comprehensiveness and general excellence. Since that Mr. Saunders has visited England in charge of the Canadian fruit display at the Colonial and Indian Exhibition, and since his return has undertaken several experiments, at the instance of the Minister of Agriculture, in the shipment of early varieties of apples and other fruits and vegetables in refrigerators. In these undertakings his efforts were crowned with the success which generally follows intelligence and well directed efforts. Mr. Saunders, in fact, is a gentleman singularly well qualified for the position to which Mr. Carling has appointed him. He was for years President of the Ontario Fruit Growers' Association—a position which he held by reason of his superior knowledge of all that appertains to the cultivation of fruit. He is recognized as one of the leading chemists of the Dominion, and was at one time one of the chief officers of the American Society for the Promotion of Science. He has been for years the leading entomologist of the Dominion, and to that branch of natural science has made many valuable literary contributions. He is a member of the Executive Board in charge of the Provincial Agricultural College at Guelph—a position which shows in some degree the extent to which his knowledge of scientific agriculture is recognized by the Ontario Government. He has, to an extent more generally perhaps than any other man in the Dominion, conducted delicate experiments of an agri-

cultural character, and in assuming the directorship of the new farm stations will be following in the groove to which his efforts and education have for years tended. He also combines with rare executive ability the faculty of intelligently communicating his ideas to others. Just such a man was wanted. Mr. Saunders is at present visiting the Maritime Provinces for the purpose of reporting on a site for the Central Experimental Farm Station for the three Lower Provinces. It is also probable that he will visit Manitoba, the North-West and British Columbia at an early date, or in the spring, for the purpose of selecting sites for the stations in those Provinces. In the meantime work is going on briskly on the Central Farm here, and the introductory operations have begun in earnest. Mr. Saunders' home will in future be in Ottawa, although he may not leave London for some months to come.

FRUITS IN MANITOBA.

It is interesting to notice in the Manitoba Crop Bulletin of 15th October, sent us by Mr. Acton Burrows, what a number of fruits grow wild in that country.

There are very few cultivated fruits except raspberries, currants, gooseberries and strawberries; these succeed well, especially the currants and gooseberries; but the varieties of plums, crab apples and cherries, which we grow in Ontario, are for the most part a failure in Manitoba.

It is especially worthy of observation, however, that there are wild varieties

of many fruits indigenous to the soil, and suited to the climate; and that these grow there in considerable abundance. Wild plums are reported from 84 townships, wild cherries from 104, wild grapes from 11, blueberries from 40, cranberries from 136, and june berries from 3.

Now here is a field for the enterprising and scientific horticulturists in the North-West. Here is a chance for them to take those hardy bushes and vines, placed there for them by a kind Providence, and by high cultivation, and by hybridizing, to succeed in producing varieties of great excellence that will at the same time endure the climate.

We have even more confidence in this course for our cousins in the North-West than in Russian importations.

A NEW FRUIT PICKER.

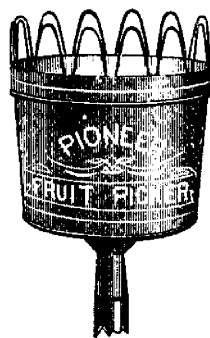
A good many tools have been invented to lessen the arduous labor of climbing up and down trees in gathering fruit. However, for the general work of gathering our heavy crops of apples and pears, we do not think any instrument can equal that old-fashioned one invented, about six thousand years ago, for gathering the fruit in the Garden of Eden. A man, with his two hands is about the best and most reliable of all instruments yet invented.

But there are cases in which one of these tools may be used to great advantage and save much labor. For instance, in gathering choice specimens of fruit for exhibition, such a tool is almost indispensable. And, where the fruit is somewhat scattered upon the tree, the

use of an apple picker would save much climbing, and moving of a heavy ladder.

Again, in case of early apples and peaches, which must be picked as they ripen or get their color, where a great amount of climbing is made necessary and consequent injury to the tree, together with the knocking off of much green fruit, some such tool would save many times its cost in a single season to the professional fruit grower.

Most of the fruit pickers, that have been invented have a linen bag, with a mouth of wire so arranged as to catch the apple by the stem, or having a cover to open and close by means of a small iron rod running down the handle. Such kinds are very convenient for gathering single specimens; but, as one hand is required to pull the iron rod, it is evident that to gather much fruit in the bag at one time would be very tiresome. Another objection to the bag,



PIONEER FRUIT PICKER.

in our opinion, is the danger of bruising the fruit against the limbs in working the picker.

The cut shows a new fruit picker, just invented by Mr. Walter Burgess, Parkdale, Ont. Having tried it in our own orchard, we note the following advantages which it has:—

(1) It is so arranged that it will catch the apple or pear on any side by the stem, and bring it off with the slightest twist of the pole.

(2) The receptacle being made of tin and not of cloth, there is no danger of the most delicate specimens being bruised against the limbs.

(3) The picker being used in an upright position with both hands, about a dozen apples can be picked at a time without difficulty.

Of course, it is tiresome to use any such tool for steady and long continued work, but we think the Burgess Fruit Picker has merits which render it worthy of this notice.

CANADIAN FRUIT AT SOUTH KENSINGTON.

One of the most comprehensive displays of Canadian fruit ever made in Europe is now on view in the conservatory of the Colonial and Indian Exhibition. Contributions are made by every province of Canada, from Nova Scotia and New Brunswick to Quebec and Ontario, and even by Manitoba and British Columbia, the greater part of the exhibits having been collected, under the direction of the Canadian Government, by Prof. Wm. Saunders, of the Western University, London, Ontario. From Ontario and Quebec excellent specimens are shown of the varieties of apples mostly shipped to British markets, and the body, texture and flavor of these must command general admiration. The pears are specially noteworthy for size and color; while an excellent display of vegetables, and even Canadian out-door grapes, is made. The Nova Scotian display comprises some fifty varieties. The British Columbia and Manitoba varieties are also interesting, as coming from parts of the

Dominion but little known in England for their fruit growing capabilities. It is, moreover, important to note that the shipment of many of the early soft varieties of fruits now shown was made from Canada in refrigerators, and the perfect condition in which they arrived is considered to fully establish the value of this means of transit.—*Farmers' Gazette, England.*

Scientific.

MICROBES, FERMENTS AND MOULDS.

This is the title of a new book just published by Kegan, Paul, Trench & Co., London, Eng. It is written by E. L. Truessart, a Frenchman, and is designed to bring this interesting department of microscopic study, which has been so successfully pursued by M. Pasteur, within the reach of the general public.

The book is an interesting one to fruit growers, because by means of the principles there revealed, no doubt many of the puzzling questions concerning blight, yellows, mildew, rust, &c., will be solved.

The word microbe simply means a small living being, without defining whether it is a plant or an animal; and indeed scientists cannot agree in which kingdom to place it. Anyway, it is parasitic, deriving its nourishment from other plants or animals, and is either the cause or the accompaniment of very serious diseases. The word bacteria has been employed synonymously with microbe, but it properly refers to only one variety of these organisms.

It almost makes one shudder to be

told what multitudes of these infinitesimal creatures there are about us ; and it is some comfort to know that they are too small for our natural vision, and that we need the most powerful lenses in order to see them properly.

Neither is it pleasant to be told that many of our diseases are due to the presence of these microbes in the blood, as intermittent and typhoid fevers, smallpox, measles, leprosy, erysipelas, &c. ; or that there are kinds which infect the human teeth, causing decay, and the scalp of the head, causing baldness, and the saliva, causing madness. Other kinds, again, are useful, as, for instance, those causing fermentation in wine or in yeast.

But it is the chapter on *Parasitic fungi* that most interests the fruit grower. There we are told that the grape vine is attacked by at least one hundred different kinds of these minute organisms.

Among them is the *Oidium* or *White disease* imported into England and France from America, and which has nearly destroyed the vineyards of Madeira.

Another is the *mildew*, only too well known among us, and to which the technical name *Peronospora Viticola* has been given. This also was imported into Europe from America. There are, it seems, both summer and winter spores of the mildew, which are the means of its dissemination. The white filaments, or hyphae, bear numerous summer spores which are diffused through the air ; while the withered leaf which falls in the autumn contains the winter ones.

These latter are oospores, or egg spores, and will germinate the following spring.

Therefore it is evidently wise to destroy the leaves in the autumn, and with them these oospores ; and in the summer the vines should be early dusted with sulphur, from which sulphurous acid is gradually set free to the total destruction of the summer spores.

Sulphate of iron mixed with lime, and dusted on is also effective in burning up this minute form of vegetable life. It should be mixed in the proportion of four parts sulphate of iron to twenty parts of lime.

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.

REPORTS OF OTHER SOCIETIES.

Montreal Horticultural Society, E. J. Maxwell, Secretary, Montreal P.O.—The Eleventh Annual Report of this society has just come to hand. It includes the report of the Fruit Growers' Association of Quebec for the year 1885, and is of great value. It is about double the size of their report for 1884, and contains ably written papers upon such subjects as "Grape Culture in Quebec," "Window Gardening," "Ornamental Trees," "Garden Roses," "Apple Culture," "How to Grow and Flower Chrysanthemums," &c. It also contains reports of local societies.

About fifty copies have been kindly sent to this office for the benefit of the Fruit Growers' Association of Ontario.

Transactions of the Maine State Pomological Society, D. L. Boardman, Secretary.—This report contains a series of essays contributed by able horticulturists and florists on quite a variety of subjects, including the following:—"Making Coleus Beds," "Small Fruits in Maine," "Trapping the Codlin Moth," "Picking and Shipping Apples." The report of discussions at the meetings forms but a small part of the book.

Transactions of the Massachusetts Horticultural Society for the year 1886, Part I., Robert Manning Secretary.—This contains essays and addresses of a very high order of merit. Among other subjects we notice: "A Trip to the Tropics," "Promising Fruits," "Forestry," "Glad-oli," "Plants for Out-door Culture," "Vegetable Growing," "Orchid Culture," "Homestead Landscapes," "Embellishment of Cemeteries," and "Ripening and Preservation of Fruit."

MAGAZINES AND PAMPHLETS.

L'Agriculteur Canadien is a new monthly illustrated journal, published by H. A. Chaput, 1,623 Rue Notre Dame, Montreal, at \$1 per annum. It is written in French, and is devoted to the interests of farmers and fruit growers.

The Southern Cultivator and Dixie Farmer, published at Atlanta, Georgia, comes out in an improved dress and contains an immense amount of reading matter just suited to Southern farmers and fruit growers, and well worth the \$1.50 subscription price.

The Sugar Beet is published at Philadelphia, and devoted to the cultivation of that vegetable and the process of manufacturing beet root sugar.

Home Life is a new illustrated monthly magazine, published in New York City. The first number is certainly got up in excellent taste and finely illustrated.

Popular Gardening, advertised in this Number, is certainly a very interesting journal for gardeners. It now incorporates in itself *The Floral World* (Chicago), *Purdy's Fruit Recorder* (Rochester), *The Garden Review* (Windsor, N. Y.)

CATALOGUES.

Winona Nursery, Smith & Vanduzer, Winona, Ont., Price List of fruit trees, grape vines and small fruits.

Lovett's Guide to Fruit Culture, Spring, 1886, is got up tastefully and finely illustrated. It is a pamphlet that is interesting and valuable aside from its business relationship.

Lovett's Illustrated Catalogue of Trees and Plants, Autumn, 1886, issued by J. T. Lovett, Little Silver, N. J.

Uses of Fruits.

Feeding Apples to Cows.—Owing to the tendency of cows to over-eat when they can get food which they like, and to which they are unaccustomed, the *Live Stock Journal* thinks that probably there is nothing more dangerous for them to help themselves to than apples, yet they readily become accustomed to them, so that they can be as safely trusted in an orchard as a sheep or horse. They should be fed moderately at first, and the quantity be gradually increased till, at length, they learn to measure the quantity their stomachs can manage.

Give the horses half a peck of ripe apples every day; they will do them more good than a bucketful of medicine.—*Rural N. Yorker.*

Apples for the Sick.—Dr. Whitman, of Beaufort, S. C., says:—"I find good, ripe, fresh apples one of the very best articles of diet where the patient wants a little something to eat, and only a little. I presume there is more fault in the manner of giving them than in the article itself, where faulty digestion results. If the attendant will pare the apple, and then scrape it with a spoon or common case knife, and give the soft pulp of a fresh apple, it will hurt no one. To the contrary, the stomach will frequently retain it, and the patient enjoy it, when nothing else can be taken. I have used the pulp of ripe apples for a relish in fevers, when nothing else would seem to satisfy the patient's craving, and would not like to have to discard it, on the score of indigestibility. Great chunks of half ripe apples are good for no one, but the scraped pulp of a good apple will harm no one."

Tin canned goods, when opened, should be immediately transferred to glass or earthenware receptacles. Recent investigations show that cases of poisoning from eating canned goods have arisen from the acid of the canned food attacking the solder of the tins, and sometimes from decomposition accelerated by an electrical action between the solder and the iron of the tin. Never leave canned fruits, meats, or fish in opened tin cans.—*The Independent, Grimsby.*

Apples vs. Roots.—Nothing else will so help the flowing milk of the cows just

now as a pailful of ripe apples chopped into slices and sprinkled with the meal. It pays as well to grow apples for the stock—if not better—as to grow roots in the field.—*R. N. Y.*

Miscellaneous.

As whole acres of Persian roses are required to make one priceless ounce of the pure attar, so the soul's balm is the slow product of a long course of right living and thinking, every separate thought and act contributing its own minute but precious particles of sweetness to the rich result.—*Rural New-Yorker.*

A Warning.—Mr. Benjamin Bower, a resident of Pleasantville, N.J., sprinkled Paris-green on his grape-vines. The wind blew some of it in the face of Miss Allie Bower, his twenty-year-old daughter. She inhaled it unconsciously, and soon after became violently ill. A physician, who was summoned immediately, could do nothing for her, and she died in a few days.

Apple Trees live to a good old age and bear fruit to the last. One in Mercer County, Kentucky, said to be ninety years of age, has borne fruit every year for sixty years. Five feet from the ground it measures round the trunk ten feet nine inches. We have several in our orchard at Grimsby approaching one hundred years of age, and still in bearing. They were fine young trees, already planted out as an orchard, when Mr. Dennis Woolverton came here in 1798.—Ed.

Notices.

THE WINTER MEETING.

The winter meeting of the Fruit Growers' Association of Ontario will be held at Chatham on the *Second Wednesday and Thursday of February, 1887.*

A good time and an enthusiastic meeting is expected.

Members should lay aside fine specimens of fruit to bring along, and contributions of plants and floral decorations are always in order.

Further particulars will be given in January Number.

"THE CANADIAN HORTICULTURIST" FOR 1887.

We hope to make the volume for 1887 more fully illustrated than any previous one. The beautiful colored plates will be continued, and a large number of cuts used to illustrate the subjects treated of. No horticultural paper in the world can be so useful to Canadian fruit growers, because it contains information just adapted to Canada.

THE PREMIUMS FOR 1887.

We offer every Canadian subscriber for 1887 a choice between: (1) *Niagara Grapevine*, (2) *Tree Vladimir Cherry*, (3) *Two Plants Hilborn Raspberry*, (4) *A New Single Flowered Geranium*, (5) *Dahlia*, (6) *Three Packages of Flower Seeds—Primula Cashmeriana*, and two other kinds. Please name your choice when you send your subscription. They will be distributed in April or May next.

THE REPORT.

The Report of the Meetings held by the Fruit Growers' Association of Ont. during the present year is full of interesting subjects for fruit growers and gardeners. The discussions being taken down *verbatim* by a short-hand reporter doubles their value over the old way of reporting these meetings. This valuable Report will be sent free to every subscriber to the *Canadian Horticulturist* for 1887.

SPECIAL CLUB RATES TO LOCAL ASSOCIATIONS.

Members of local associations in clubs of not less than ten can have the *Canadian Horticulturist* at a reduced rate, and at the same time become members of the Fruit Growers' Association of Ontario. We want to cultivate sympathy between it and the local societies. We shall be glad to incorporate in the Annual Report any interesting reports or papers from local associations, and to publish items of interest from them in our *Horticulturist*.

Will *secretaries of local associations* please send us notices of their meetings, so that, when possible, we may be in attendance.

AGENTS.

We would like some friend in every town to show samples of *The Canadian Horticulturist*, and take names of subscribers. We will send *free samples* for this purpose to any one who will write for them, and pay a commission on new subscriptions obtained by any one acting as Agent. Address all communications,

L. WOOLVERTON, Grimsby, Ont.

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