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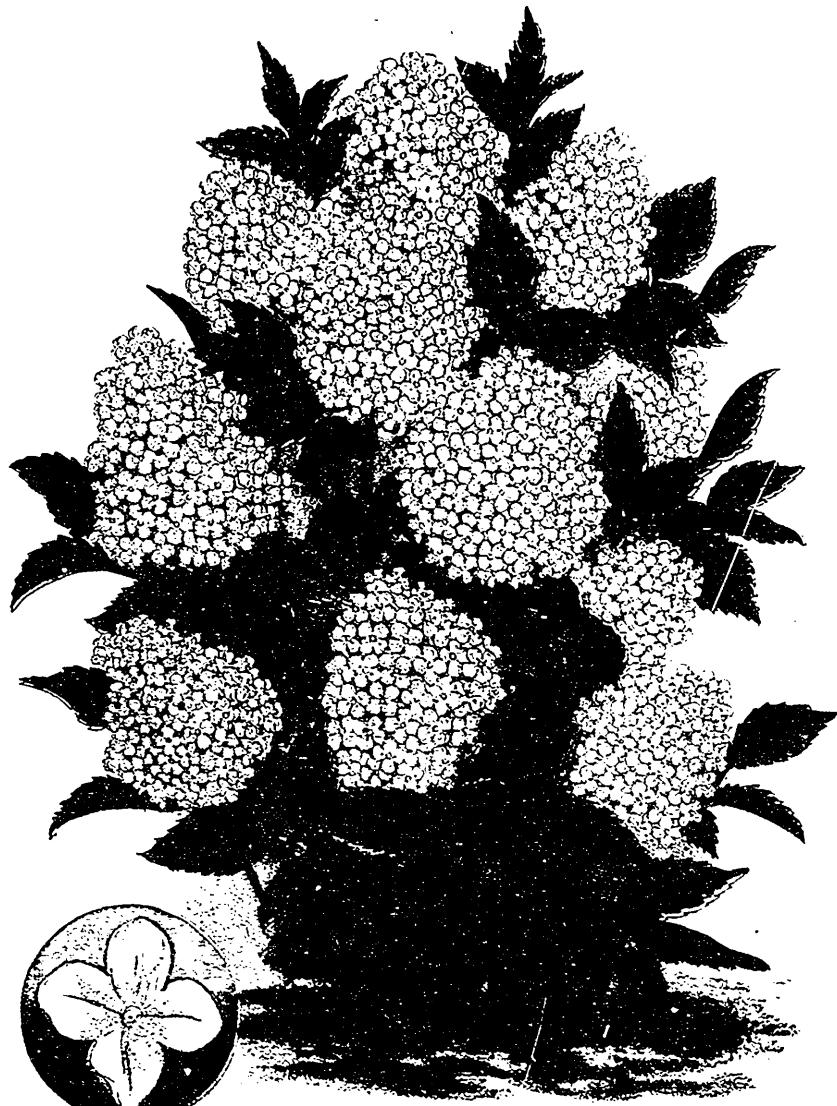
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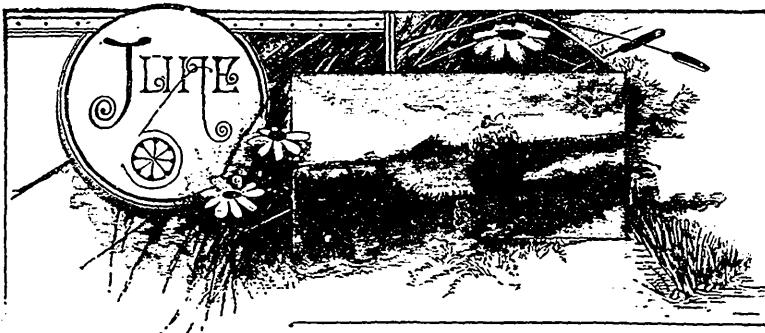
*Hydrangea Paniculata Grandiflora.*

THE  
Canadian Horticulturist.

VOL. XI.

1888.

No. 6.



HYDRANGEA PANICULATA GRANDIFLORA.

**H**SHRUB that carries so grand a name as this one must surely be of some importance, judging merely from its high sounding title. But great names are so frequently employed now-a-days to help the sale of some novelty, that we often regard them with suspicion until we have proved the plant itself upon our own grounds.

This shrub, however, has been well tested in Ontario. Some years ago it was distributed by our association among its members, and has proved itself perfectly hardy. We speak not only from our own experience at Grimsby, but would also cite the authority of Mr. Jas. Goldie, of Guelph, who says that it has stood a winter temperature there of 40 degrees below zero, and

has come out perfectly unharmed. This is very remarkable because the other varieties of Hydrangea, such as Thos. Hogg, Otaksa, Hortensia, etc., though most beautiful in flower are too tender for out-door planting in Canada; even the wild Hydrangea, (*H. arborescens*) is only found in Pennsylvania and southward.

Our colored plate well represents one of these flowering shrubs in full bloom. The immense panicles of bloom are made up of hundreds of small blossoms such as is shown to the left hand, and these continue growing and developing for six weeks or more, changing gradually from ivory white to pinkish white. The late flowers dry up, and take on a rich brown color, when they are desirable for winter bouquets.

The Hydrangea is very susceptible

to the influence of drouth, and in dry seasons, especially if in light sandy soil, it should be well mulched, and occasionally thoroughly drenched with water. The great point in its culture is to keep up a good vigorous growth, which will usually be succeeded by great masses of bloom in the autumn. Last season was unusually dry, and our hydrangea suffered most severely from lack of such treatment as

we have described, the leaves drooping badly, and the flower clusters failing to reach their full development.

For a conspicuous place upon the lawn, either as a single specimen, or in a group, it is one of the most desirable of all shrubs. Its time of flowering is in August or September when there are very few other shrubs in bloom, and then there is nothing which can in any way compare with it.

## SOME PROMINENT CANADIAN HORTICULTURISTS.—IV.

DR. D. W. BEADLE, ST. CATHARINES, ONT.

PROMINENT in the list of Canadian Horticulturists stands the name of Mr. Delos W. Beadle, of St. Catharines. For twenty-four years he was secretary of the Fruit Growers' Association of Ontario, filling the office with most distinguished ability, so that at the present time wherever the progress of horticultural science in Canada is spoken of, his name is also known as an authority upon the subject.

We have just had an engraving of Dr. Beadle prepared for this journal and we are sure that our readers will all be pleased to see the face of one with whose writings they are already so familiar. We have no room here for any extended biographical sketch, but wishing to preserve for future generations some account of those who have been the pioneers in Canada of our favorite industry, we have prepared the following brief notice.—

Mr. D. W. Beadle inherited a taste for horticulture from his father, Dr. Beadle, of St. Catharines, who was one of our earliest Canadian nurserymen. He was born in that place in October

17th, 1823, and was prepared for college at the Grantham Academy, now St. Catharines Collegiate Institute.

In September, 1841, he entered the Sophomore class in Yale College, New Haven, Conn., where he obtained his B.A. degree in July, 1844, and two years later received his B.A. (*ad eundem*) from the University of Toronto. In 1847 he received his LL.B. from Harvard University, Cambridge, Mass., and in 1848 was called to the bar in the city of New York where he entered upon the practice of his profession in which he continued for about six years. On account of failing health he was led to seek out-door life and occupation, and was admitted by his father to an interest in the nursery business, in which line he has ever since continued.

When the Hon. Geo. Brown began the publication of the *Canada Farmer*, Mr. Beadle undertook the charge of the Horticultural Department, and continued to edit it for several years.

In January 1859 the Fruit Growers' Association of Upper Canada was organized in the city of Hamilton with

eighteen members, with Judge Campbell its first president, and Arthur Harvey recording secretary. On the 16th of January, 1861, Judge Logie, of Hamilton, was elected president, and D. W. Beadle, secretary, a position which he continued to fill until his retirement in 1886. Mr. Wm. Wauders in his annual address in 1886, president, says of him, "While I acknowledge with pleasure the valuable aid rendered by my much esteemed

predecessors in the presidential chair, the lamented Logie, W. H. Mills, Dr. Burnet, and P. C. Dempsey, and esteem it an honor to wear their mantle, I feel free to say with no fear of contradiction, that the Fruit Growers' Association of Ontario owes its present high position and influence more to its able secretary than to any other man belonging either to the past or the present."

The Canadian Horticulturist was first



DR. D. W. BEADLE, ST. CATHARINES, ONT.

issued by our Association in Jan. 1878, as a magazine of sixteen pages. Since that time it has been increased to twenty-four pages, and has been instrumental in increasing the membership of our association to a total of over two thousand names. For the editing of this journal Mr. Beadle's literary training eminently fitted him, and the high standing attained by the journal among the cultured classes of our country

leaves ample testimony to his ability for such work.

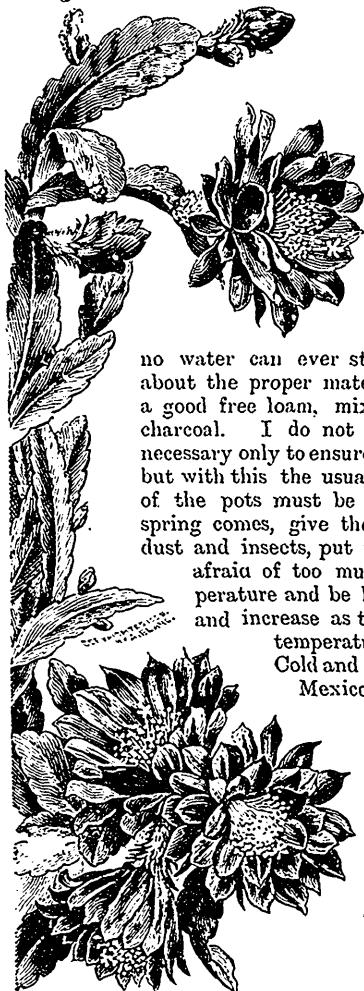
As an evidence that Mr. Beadle's abilities were also recognized abroad we may add that on the 10th of Nov., 1862, he was elected corresponding member of the Entomological Society of Philadelphia, and in Dec. 1865, by the President, Council and Fellows, a corresponding member of the Horticultural Society of London, England.

## CACTUS CULTURE.

Could you give a sketch about the management of Cacti at the different times of the year; when to water or not; and when they should flower, and how to make them flower, and any other point that may be useful. I am yours truly, F. DANN. Selkirk, April 9th, 1888.

(Reply by N. Robertson, Superintendent Government Grounds, Ottawa.)

**T**HREE are two things that are imperative in order to be successful with cacti, viz.:—a season of perfect rest, and the most perfect drainage. During the winter months, they should



no water can ever stagnate about them. Much has been said about the proper material in which to grow them. What I use is a good free loam, mixed with lumps of old lime, rubbish and charcoal. I do not know that those things last named are necessary only to ensure perfect drainage and keep the soil open, but with this the usual method of plenty of crocks in the bottom of the pots must be carefully attended to. And when the spring comes, give them a good washing to cleanse them from dust and insects, put them in a warm sunny position, don't be afraid of too much heat, they will stand a very high temperature and be benefited by it. Water sparingly at first, and increase as they begin to grow. If you have not a high temperature your watering must be carefully done. Cold and dampness are the greatest enemies they have.

Mexico and Brazil are the principal producers of many of them, although they are found in several other tropical regions of America.

To enumerate the many different species of them would perhaps be superfluous in the eyes of many of the readers of your Horticultural paper. In a botanical collection in England, there are over nine hundred species, but I will take only a few of the species most frequently seen.

*Phyllocacti* are those frequently seen in collections and houses and are known

by their flat or triangular forms. The colors of their flowers are crimson, white and pink. They make a grand show, and their flowers will last a considerable time, if kept in the shade and in a rather low temperature during this season.

*Opuntias*, or prickly pears as they are sometimes called, are round stemmed with flat, oblong branches. Of them there are many species, and many of them are of considerable commercial value. *O. Cochinellifera* and *O. Tuna* are those upon which the Cochineal insect is fed, and from which the dye cochineal is taken. There are several other uses they are put to in fancy work, such as baskets, trays, etc. Two of them are found in our North-West Territories.

*Cereuses* are another numerous class, often called the Tree Cacti on account of the great height attained by them. Some reach as high as sixty feet; some of them run up in straight poles, whilst others branch like a tree. Their stems are in various forms, round, fluted and angular. The most commonly known of them are *C. McDonaldii* and *C. Grardiflorus*. Many of them are night bloomers, flowering only one night, opening about five p.m. and closing about ten the next morning, some of them very large, measuring as long as twelve and fourteen inches, of the most beautiful and delicate texture and gorgeous colors.

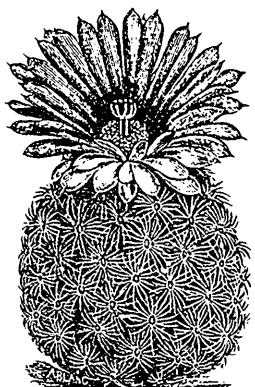
*Mammillarias* may be said to be round balls covered with prickles. The flowers are thrown up from this round ball, but they do not in general attract the same attention by their flowers as the former variety does, but their curious shape always attracts attention. They require a rather better treatment than the others, that is to say not so much of dry treatment, and a richer soil.

*Echinocacti* are very similar to the former in most respects, only they have longer spikes and appear more formidable than the others.

Epiphyllums, called Lobster and Crab's-claw Cacti, are generally found growing on the trunks of trees in their native country Brazil, and they do and look well in a hanging-basket. But they are mostly seen here grafted on the Pereskia stocks and other sorts such as Grandiflorus. They are very beauti-



PHYLLOCACTUS LATIFRONS.



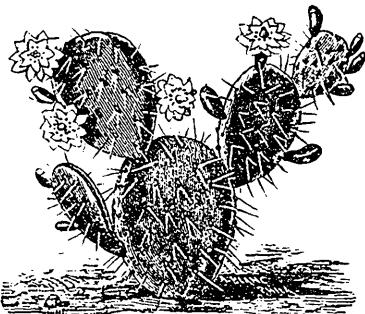
MAMMILLARIA PECTINATA.

ful in their many colours in this shape also.

These are a few of the most prominent varieties grown. No collection of plants should be without a few of them, if it were for nothing else than for their curious and unique appearance. Planted out on a rockery, or in a bed the different varieties form a great source of attraction, which people appreciate. I never care to take them from the pots

as it is such a rough job to handle them, and men do not like it, some of their pricks being in the style of a fishing hook, barbed and difficult of extraction.

Much confusion has reigned amongst the names of the Cacti. You can order by name and think you are getting



OPUNTIA TUNA.

something different from what you have and when you get them they are frequently something you have under another name. Now, that such men as Blanc has taken hold of them, you are safe in ordering from him, having no fear of this difficulty.



CEREUS GRANDIFLORUS.



## NEW ROSES.

BY F. MITCHELL, INNEKIP.

AS I have received inquiries concerning the newer additions to our already large list of roses, it would perhaps not be out of place to reply as far as I can to these inquiries through the columns of our journal. I may preface the very few guarded remarks that I shall make by saying, that with added years, I am developing a wonderful amount of good Scotch caution, and do not now care to positively laud or condemn either a rose or a fellow-being, without a considerable term of close acquaintance.

THE PURITAN came out last summer. My own experience with it does not amount to much, but I have corresponded with those who are better informed on it than I am myself, and having summed up the information received, I think what follows will prove reliable. It is a hybrid tea, white, and when perfect, very beautiful. Some very fine blooms have been produced under glass, but as yet it has not succeeded in the open air. I do not think, on the whole, it will prove so valuable as "The Bride," which came out some months before.

MRS. JOHN LAING, a hybrid perpetual, is perhaps the latest rose out, of which anything is really known. From all I can learn of this rose, I predict it has come to stay. In color it is pink, and it has many qualities to commend it. It is claimed to be a seedling of that fine old variety Frances Michelon. I will write more of this rose so soon as I know more about it. I can now recommend THE BRIDE more strongly than I did last spring. It is a first-class rose for the amateur. Souvenir de Victor Hugo has also exceeded my expectations, but its resemblance to older varieties detracts from its value as a novelty.

HER MAJESTY takes a long time to fully prove itself. I got my first plant two years ago, and my eyes have not yet been gladdened by the sight of one bloom. I would advise those impatient persons who desire a full show of bloom in a few weeks after planting, not to plant largely of this variety. Of other roses introduced in the last few years, I have nothing to say which I have not said before.

## JUNE FLOWERS; OR A RAMBLE IN THE WOODS.

BY MRS. A. GILCHRIST, GURLIH, ONT.

JUNE, the month of flowers, finds our woods and river banks fairly aglow with floral beauty. The true value of flowers is in their form, color, and fragrance. There is no language

to describe the exquisite pencilings and shadings of many of our native flowers, rivalling in beauty and sweetness some of their more pretentious exotic relatives, which can only be brought to

perfection with the greatest care and culture; while our natives, if they get any chance at all, bloom quite freely, and amply repay any care or culture bestowed on them. The technicalities of Botany are principally used for the describing and naming of plants, which make it useful and interesting. In this paper I purpose giving a sketch of a ramble in the woods.

In crossing the river we notice the common blue flag (*Iris versicolor*), or the Fleur-de-Lis of France. We find it has relatives all over the world, yet our native is worthy of a place among its foreign rivals. We pull one up with the roots and find it has a creeping root stalk, stem stout and angled on one side; the leaves are sword-shaped and from half to one inch in width; they are parallel veined, telling us plainly it belongs to the lily family; yet the leaves differ somewhat from the ordinary parallel-veined leaves. While most leaves spread horizontally and present one face to the sky and the other to the earth, the Iris presents its tip to the sky and its face right and left to the horizon. On careful inspection we find each leaf is formed folded together lengthwise, so that what would be the upper surface is within, and all grown together, except near the bottom, where each leaf covers the next younger. It was from this folding of the leaves that they take the name of equitant leaves. The flower is a lovely purple, veined with white and yellow, having yellow hairs on the petals like little brushes. These hairs are useful in fertilization. When an insect goes in to get nectar, it is covered with pollen and this brush seems to brush the insect off and it is thus rubbed on the stigma and fertilized. The six petal-like divisions of the flower are in two sets of three each. The three outer divisions are reflexed, the three inner erect and smaller, the stamens distinct, the anther of each concealed under a flat and petal-like arching stigma. The colors are

charmingly blended, hence the mythological name of the rainbow.

In rambling on through the woods we come to a rocky bank. Here we get the Columbine (*Aquilegia Canadensis*), with its nodding flowers of orange and scarlet. It has five petals which are attached and form five hollow tubes called spurs. It is at the end of these spurs, where the nectar or honey is stored. It is also from these spurs that the plant derives name, *Aquilegia*, from the fancied resemblance to an eagle's talons. The flowers are very showy and terminate the branches. The leaves are decomound and of a pleasing green color. It has also a sister in the West, a native of the Rocky Mountains, which is blue and white. But we must not remain too long here on this rocky bank with the *Aquilegia*.

Hastening on through the wood we come to a marshy place with a lot of old logs and stumps of trees. Here we find a beautiful little creeping vine. We examine it and it has two pretty little pink bell-shaped flowers. We look up over Botany and find there is only one species, that is *Linnaea borealis*. Linnaeus' most intimate friend, Dr. J. F. Gronovius, with the concurrence of Linnaeus, selected this little depressed sweet flowering, long overlooked plant to transmit the illustrious name of the great botanist to posterity. As I have said there is only one species. It is a beautiful little trailing evergreen plant, with long slender branches, bearing small ovate or obovate leaves. It sends up erect thread-like flower stalks, which fork near the top. Here are the two gracefully drooping bell-shaped flowers from which the plant derives its common name of twin flower. It grows almost exclusively in woods in cold moist situations, but, although growing in wet places, we never get the roots in water, but high and dry on an old log or stump. It is widely dispersed over North America, also Northern Europe and Asia according to some

writers. Its scent is so powerful especially at night that it may be discovered at a considerable distance. The Laplanders use a decoction of its flowers as a remedy in rheumatic complaints.

From further research in this same marshy place we get a small green plant with creeping roots. What can this be? We again have recourse to Spottow. We analyze our flower. At first we think it has four showy white ovate petals, but on examination it has a crowded head of very small greenish white flowers, having four petals, four stamens on the ovary, one style. We turn to the key and find it in the first division, Polypetalus Exogens, Corolla regular, Cornaceæ might be the order. We turn to the order Cornaceæ, and it says shrubs or trees. Ours is neither a shrub nor a tree, but on reading further we find this description, "*Cornus Canadensis* (Bunch Berry), stems simple, four to six inches high, stems springing from creeping slender subterranean shoots, which are slightly woody, bearing four or six ovate or oval leaves as if in a whorl below the stalked flower head, petal-like leaves of the involucle ovate and white." That then is our plant, the *Cornus Canadensis*. We feel quite well repaid for so much searching, having found the name of our plant, also that it is the only Canadian genus in the order.

But let us look and see if there are not some more plants while we are here in this mossy bog. Here we find the *Myosotis palustris* (Forget-me-not), and there is the pretty little white

slender Harebell (*Campanula aparinoides*) with its graceful nodding white flowers. But oh! on that moss-covered hillock there is the *Cypripedium speciosum* with its showy pink and white flowers. It has a sac or pouch not unlike a fishing basket and from each side of the sac extends two arms a little twisted. Then the hood or lip seems to lean forward, and is a darker pink than the pouch. It is called Lady's Slipper, but I am sure I cannot see any resemblance to a slipper,—it must have been a Chinese-lady,—and over there are some spikes of Ladies' Tresses (*Spiranthes*). It is very wet here, and there is a flower I have longed to find *Calypogon pulchellus* (Grassy pink) with its purplish pink flowers born on a slender scape, the flowers being about one inch broad, the lip as if hinged at its base, bearded with white yellow on purple hairs.

It is now time we were turning homeward. In leaving the bog we come to a dry knoll with some pine trees and sandy soil. Are these strawberries or violets in bloom in the end of June? No. It is *Dalibarda repens* (or False Violet). Here is also *Cypripedium acaule*, stemless Lady's Slipper, it has two oral leaves and only one rose-purple flower. There is also a perfect bed of *Pyrola*, nearly the whole genera represented. In climbing the fence we step on the *Gaultheria procumbens* (Tea-berry Wintergreen), having flowers and ripe bright red berries on the same plant. Having found so many floral treasures we return home hungry, weary—and foot-sore, but happy.

## CULTIVATION OF THE HOLLYHOCK.

BY HERMANN SIMMERS, TORONTO.

THE HOLLYHOCK (*Althaea rosea*), a plant of the natural order Malvaceæ commonly referred to the same genus with the Marsh Mallow. Briefly it is described thus: It

is a native of India and south of Europe. Unfortunately of late years the Hollyhock has not been cultivated in our gardens as much as it should be, being one of

the handsomest plants a person could wish to have for a background effect, and towering as it does with majestic effect over its small subjects, the annuals. The Hollyhock is almost as easily raised from seed as the pansy, the pink and the carnation, etc., is; but the difficulty lies chiefly in carefully wintering them, which probably has been the reason for their partial extinction of late years. Hollyhock seed may be started in a cold frame any time during the month of June, and as soon as the plants have become sufficiently established to allow of them being handled, transplanted to any ordinary bed in rather a shady locality. Do not defer sowing the seed later than this month, as it is almost impossible for them to get sufficiently established to withstand the winter. My experience with them has been that if sown later than June they will invariably be frozen through the winter, and even sowing in June and subsequent transplanting will sometimes discourage the amateur; because the proper amount of covering required is somewhat puzzling. Too much is sometimes as bad as too little, for if we have a mild winter the plants, having been grown pretty strong, will probably rot with a heavy covering, and the same sometimes happens with the lighter covering. Therefore I would suggest a medium amount of covering, and to plant in a rather secluded spot. If the plants have properly wintered over, plant to their proper situation about the middle of April, as during the cooler weather of April they have a better chance to root, when they will be fully prepared for the warmer weather to follow. I would suggest not to leave them where they were planted the previous summer, as frequent transplanting will strengthen their blooming properties. This, the June issue of the HORTICULTURIST, will give amateurs plenty of time to prepare themselves for sowing seed for their plants for next year, and I only hope



many will avail themselves of the opportunity of so doing in order to have one of the finest species of plants in their gardens, not on account of its value as suitable for cut flowers, but as a decoration for the garden.

## THE WOOD LOT.

By "FORESTER."

THE study of forestry for the purpose of preserving those small remains of our wild woods now left on most farms will probably be the first practical attention given to the subject. When so little is known of forestry it is not surprising that every farm owner has a different theory, not distinct enough however to make many of them take any real care of their wood lots, or to say anything about it unless applied to.

It is generally admitted that the forests ought not to be pastured, and there may be a few lots from which cattle are excluded; but I have not heard of anything more being done and it would be hard to say what should be the next advice to farmers or forest owners. I notice in the last report on prize farms in Ontario it is said that on one of the best of them the wood lot was cleaned up and carefully seeded to grass, and that, since the farm has been drained, the black ash trees are dying. This is a management which seems contrary to all principle of forestry, as far as concerns the growth and life of the trees; for the first requisite in forest life is to keep the ground fully shaded —so much so, that grass cannot grow —to keep it moist and free from packing, or the tracking of cattle, and to encourage such a growth that drying winds may not enter.

It seems to me that as soon as a wood gets so thin, that grass is seen, its effectual growth is done, and it would pay better to cut off one or more acres and convert into good meadow land, and if need be, to plant out an

acre of old field with seedlings from the same or other forests.

I do not find in the best forests more than fifty large trees per acre, and we know that maples or other trees at eight feet apart (690 to the acre) can be grown till they will make half a cord of wood each; and if they are thinned judiciously or in any case if really in vigorous life, they will increase faster than any old forest.

To preserve a wood lot, if the trees are only of a fair size, thick enough, and few or no dead tops showing, I think it will answer the purpose if it is fenced into one of the ordinary cultivated fields; what pasturing with cattle may occur in a rotation will not touch trees if they can get anything else to eat.

If very open and exposed to winds it would be well to enclose the bush with a fast-growing hedge, and in any really open place put in seedlings till the ground is properly covered. Any enclosed wood I have seen, soon gets such a growth of young trees about the margin that it is hard work to get into it, and if the main trees are not too old will in time make a heavy bush.

But I have no intention of doing this, unless, on a careful survey, the bush turns out better than it appears at a glance. After counting out the large dead tops, the swamp elms, hollow basswoods and short lived iron-woods and balsams, there will hardly be enough worth saving, and these woods have been overrun with stock so long that the undergrowth amounts to little. I intend therefore to close off the old brush

gradually (keeping stock out in the meantime) one or more acres at a time as may be needed for fuel, etc., and then in proper place for forest and shelter, or on the land inconvenient to cultivate, begin a new forest by planting out regularly just such trees as I want for fuel, manufacturing or protection, to be ready by the time the old forest has been cut away.

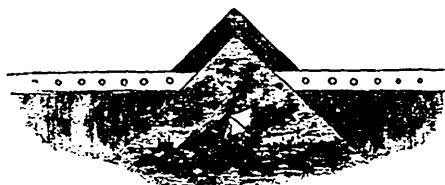
If the growing trees are of a valuable kind, and the owner has skill and patience to begin and carry on a judicious thinning, an old forest can be rapidly improved, but I fancy most proprietors will leave to a thoughtless employee to do the wood cutting, and it often happens that to pick out inferior or dying scattered trees will make the wood dearer than to buy it, and it may do serious injury. I find it stated in a late Ontario report that an owner removed the worthless elms from a lot and soon after found that he had done too much thinning, for the other, and what he thought valuable trees, ceased growing and soon began to fail, and as a rule it will be safer to depend on the new planting for the future forest, at

least on such small lots as our farms will retain.

To me it is much more encouraging, for in laying out the forest the various trees, the maple for fuel, the hickory, ash and oak for the factory, the cherry, basswood and walnut for indoor use, the pine and cedar for outside, I feel as if I were furnishing the property with an attraction for myself and future owners, more than by the biggest castle I could find room for on the highest hill.

#### The Black Cherry for Foresters.

ROBERT DOUGLAS, the great forest tree planter of the West, pronounces the wild Black Cherry (*P. serotina*), to be even more profitable to the planter than the Black Walnut. His reasons are (1) The trees can be planted closer; (2) They grow easily in dry soil; (3) They do not injure vegetation beneath; (4) They attain full size for cabinet makers' use in half the time; and (5) The wood brings in some markets quite as high a price.





## The Canadian Horticulturist.

SUBSCRIPTION PRICE, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees.

REMITTANCES by Registered Letter are at our risk. Receipts will be acknowledged upon the address label.

### Notes and Comments.

FRUIT ABOUT ORILLIA seems to be a profitable crop according to the *Orillia Packet*. One Duchess of Oldenburg apple tree, for instance, thirteen years planted, produced last year nine bushels of apples, which sold in that vicinity for \$1 per bushel. Our Association has about forty members at Orillia, prominent among whom is Mr. J. Cuppage.

PRAACHES will not be so great a failure as we at first anticipated. One bud in twelve surviving counts up to a large number upon a tree, and these survivors are showing up their very best for our encouragement. Indeed the spring opens with favorable prospects for the fruit farmer. The pear trees appear laden with bloom, and so do apple, cherry, and other trees. Let our fruit growing fraternity resolve upon giving their orchards the very best of care and culture, and to place such fine samples in our markets that American shippers shall be driven out by the disparity in the products even in spite of the removal of the import duty.

MR. CHARLES DRURY, of Crownhill, has been made Minister of Agriculture

for the Province of Ontario. Members of our Association will be glad of the appointment to this office of one who was one of our Directors for three years, and who has for four or five years been one of the auditors. He is thus in a position to know exactly the faithful work of our Association in the past in advancing the interests of Canadian farmers by educating them in fruit culture, and to give us the benefit of his counsel in carrying out future schemes of usefulness.

JUDGING FRUITS — We hope soon to see a carefully arranged scale of points prepared for the use of judges of fruits at all our exhibitions. In poultry, and in live stock, the work has been reduced to a system; so that something like uniformity, and fairness may be expected from the judges. But not so with our fruits, which are often judged in a most unfair and unsystematic method. It is time our Association considered this subject most seriously, and appointed a competent committee whose duty it should be to prepare a scale of points which could, on approval, be recommended for general adoption by all fair

managers. Some such heads as the following might be used among others, viz:—Nomenclature, Coloring, Flavor, Hardiness, Productiveness, Shipping Quality, Commercial Value, and each plate of specimens given points under each head varying from 1 to 5 according to merit. The sum total of points given would then decide the awards.

**HARDY APPLES.**—It was no wonder that at our Ottawa meeting with the thermometer registering from 30° to 40° below zero, our attention was turned largely to such questions as Winter protection, varieties of fruits and ornamental shrubs adapted to the cold north, etc., notwithstanding the gentle remonstrances of some of our friends of the Experimental Farm who hope to be able to test for us every known variety of fruit

Under the head of hardy fruits Mr. Charles Gibb, of Abbotsford, P.Q., suggested the following six as his selection of the best hardy varieties of apples:—(1) Yellow Transparent; (2) Golden White; (3) Raspberry; (4) Titovka; (5) Longfield; and (6) Arabka.

Mr. A. A. Wright, of Renfrew gave the following as his selection of five varieties for Carleton County, viz:—(1) Yellow Transparent; (2) Duchess; (3) Alexander; (4) Scott's Winter, and (5) Wealthy.

**SPRAYING INSECTICIDES.**—So general has this custom become that it no longer seems necessary for us to emphasize its importance. The cherry and plum trees are sprayed to protect them from the curculio, the apple trees to protect the young fruit from the codling moth and the leaves from the canker worm and the tent caterpillar, and the potato patch to destroy the potato bug; and for all these the much tested Paris green and water is found equally effective. Many recommend half a pound to fifty gallons of water, but in our experience of its use on a large scale at Maplehurst, this is much

more than should be used. One quarter of a pound to fifty gallons of water is quite as effectual, and much less injurious to the foliage. Some have expressed a fear lest the poison might in some way find its way into the interior of the apple, but the fear is quite groundless. Both this and London purple are minerals, and not so absorbed, but washed off by the first rain.

The spraying pump is found equally useful in the currant and gooseberry plantation, where the sawflies may quickly be disposed of by a careful spraying of the bushes with powdered hellebore and water, at the rate of one ounce to two gallons of water.

For the aphis on the cherry, the kerosene emulsion is perhaps the most effective remedy. It may be made in several ways, of which the following is a good one, viz:—Dissolve half a pound of common soap in one gallon of boiling water, and then add two gallons of kerosene, churning until well emulsified. Then for use add ten parts of water. This also may be applied with the ever useful spraying pump.

We would also remind our readers of the hyposulphite of soda as a remedy for the apple scab. It may be applied to the young fruit along with the Paris green, one pound of hyposulphite being used to every ten gallons of water. Those kinds which are especially subject to scab should be experimented with most carefully, and the results made public through this journal. That it is useful has been proved, but that it is an *effectual* remedy has yet to be proved.

#### The Wild Goose Plum.

This plum is the Chickasaw type, and grows naturally in great abundance in the favorable situations in the South and West. According to the *American Garden*, Mr. J. R. Hawkins, of Orange Co., N. Y. has had most favorable experience in the cultivation of this vari-

ety, packing them in peck baskets, and selling them for 90 cents per basket. The plums seem to be curculio-proof, and the trees proof against all diseases. The fruit is used chiefly for dessert, and for table decoration.

### TWO NICE SHRUBS.

A. S. FULLER, in *American Garden*, recommends the Japan Quince, and the Dwarf Flowering Almond. The former grafted upon the apple, pear, or hawthorn stock about four feet high; and the latter budded upon plum stock at about the same height.

Sometimes several colors of each may be worked upon the same stock.

In Canada, the flowering almond is too tender except for favored localities, but perhaps it would succeed better on the plum stock.

### CACTI IN MEXICO.

THE cereuses alone are very numerous, and on account of the various colors of their stems make an interesting collection. There are said to be over two hundred species of them, mostly natives of tropical America, where the soil is dry and rocky. Our engraving gives a fine notion of the wild appearance of a country where these and other cacti flourish. The traveller seems to be actually hedged in by these terrible spines, which defy nearer approach. Towards the left hand appears an immense agave, of the same class as our common century plant, and of which there are over one hundred varieties. In Mexico they are sometimes used as hedge plants, and also valued for the manufacture of a beverage called "pulque," prepared from the young flower stalks of *Agave Americana*. To the right is a fine specimen of a cereus, tree-like in its form, but not in foliage. Mr. Blanc says the gigantic columnar cactus, *cereus giganteus*, is quite common in



the lower part of the valley of Santa Cruz, and is there called the saguarro. It presents a thick fluted column, about the thickness of a man's body, and from thirty to fifty feet in height, with three or four branches at the top, the whole looking like a gigantic candelabrum. Growing beside the cereus, and also upon the rocks, is to be seen the opuntia, or prickly pear cactus, referred to by Mr. Robertson on page 125. This also is used for fences in Mexico.

### THE SUMMER MEETING.

THE Summer Meeting of the Fruit Growers' Association of Ontario will be held at the town of Picton, Prince Edward Co., in the County Council Chamber, on Wednesday and Thursday, 11th and 12th of July, 1888, beginning at ten o'clock, a.m.

Certificates for reduced fares on all the railways may be had by addressing the Secretary, L. Woolverton, Grimsby,

Ont. Boats and cars will carry passengers at one fare from Trenton to Picton and return. Tickets should therefore be bought to Trenton from whence the certificates will entitle the holders to return at a reduced rate. Two certificates will be required in case a through ticket to Trenton cannot be purchased at the starting point.

Rates at Royal Hotel, Picton, \$1 per day.

The following will be the leading

#### TOPICS OF DISCUSSION.

(1) "Fruit Growing in the County of Prince Edward," by John P. Williams, Bloomfield.

(2) "The Farmer's Fruit Garden." L. Woolverton, Grimsby.

(3) "The Farmer's Vegetable Garden."

(4) "The Production of New Varieties of Fruit by Hybridization and Seedlings." P. C. Dempsey, Albany.

(5) "Forestry for farmers, or what forest trees will pay the farmer to plant." Thos. Beall, Lindsay.

(6) "Growing Fruits for Canning Factories." Wellington Boulter, Picton.

(7) "Pear Blight," (with illustrations). Prof. J. H. Panton, Agricultural College, Guelph.

(8) "Growing and evaporating Corn."

W. R. Dempsey, Reeve of Ameliasburgh.

(9) "Couservatories, their management, selection of plants, etc." F. Mitchell, Innerkip.

(10) "The North-West; probabilities and possibilities of that country for fruit consumption, and for fruit production." A. McD. Allan, Goderich.

#### QUESTION DRAWER.

The following questions have been handed in for the QUESTION DRAWER:—

1. In what state and where does the Roseleaf Hopper pass the winter?
2. Will it pay the farmer to plant good land to Walnut trees?
3. How can a natural wood lot of Beech, Maple and Elm be best utilized for profit?
4. How can we best forward the interest of Horticulture in our Association?
5. What is the cause of the Fungus-seab on the apple. Why are some varieties subject to it, and others free from it, etc.
6. What is the cost, and what the profits of evaporating apples and other fruits?
7. What is the best way to prune and trellis the grape?
8. Tomatoes, what soil is best? Does it pay to trellis?
9. Can we improve any of our present methods of marketing fruits?
10. How may we secure uniformity and fairness in the awards of prizes to fruits?

It is hoped that the meeting of Wednesday evening will be enlivened by local contributions of addresses and music.

#### QUESTION DRAWER.

##### Planting an Apple Orchard.

47. Will it likely prove a profitable investment to buy cleared land at twenty dollars an acre, which lies high, and is naturally drained, and abounds in shaly lime stone, for the purpose of planting out an apple orchard on a large scale? Also, the following kinds are known to do well on next farm, and on same kind of soil. Can you recommend anything better in a 1,000 trees? American Golden Russet, King Tompkins, Winter Strawberry, Greening and Ribston Pippin. The site is a very exposed one, higher than the surrounding forest trees. A MEMBER.

*Reply by A. McD. Allan.*

(1) I BELIEVE it will pay well. Indeed, my experience for many years has

been that the fruit crop was rapidly coming to the front, and now it is there, as the best paying crop upon the farm.

(2) The kinds named are all such as will pay for export trade. If Baldwin succeeds there I would certainly plant it. And the Blenheim Pippin certainly. I would think Blue Pearmain should do well there, and if so, there is money in it.

#### Force Pumps.

48. Where can the pump be purchased, referred to in volume X., p. 134?—J. F., Ottawa.

FROM Wm. Robertson, Oakville. We think it equally good with the Field Force Pump of Rochester. Mr. McD. Allan recommends Brooks' Champion, for sale by Beecher Bros., London. It only costs \$3.50, and may be used for spraying either large trees, or small bushes.



#### Bark-lice.

49. In the April number I notice you recommend soft soap and washing soda for bark-lice on apple trees. What proportions of these should I use and is it too soon to put it on now?—J. H., Port Hope.

WE use half a pound of washing soda to an ordinary wooden pailful of water, mixing in the soft soap *ad libitum*. Either of these substances are effective remedies by themselves. The application should be made about the first of June, at the time when the almost microscopic young lice hatch out and leave the old scale in search of new quarters.

#### The Onion Maggot.

50. Is there any effective remedy for the onion maggot? Last year I tried a strong solution of tobacco and soot in water, but without avail. W. H. F., Peterboro'.

PROF. LINTNER, New York State entomologist, recommends spreading gas lime fresh from the works, upon the ground in the fall, at the rate of 200 bushels per acre. The maggots pass the winter near the surface of the ground in a chrysalis state and the gas-lime would kill them. Miss Omerod, an English entomologist of note, has been successful in keeping off the maggot by simply earthing up to the neck each bulb, sometimes growing them in trenches to favor this operation. A Massachusetts gardener has for forty years used a strong decoction of burdock leaves with success. He runs

them through a hay-cutter, pounds them to a pulp, and adding water, leaves them standing over night. He applies by pouring the mixture along the rows.

Prof. Riley recommends spraying the onion patch with kerosene emulsion.

#### The Annual Report.

51. Has the annual report yet been distributed? Is there no way of getting it out earlier for study amid the comparative leisure of the winter? Now it comes in the very press of outdoor work, and all careful and thoughtful personal of it is out of the question, and by next winter it will be a trifle stale.—C. R. M. Kingsville, Ont.

THE Report has been in the printer's hands since December. The proofs have been carefully revised and indexed by the writer, and we are in daily expectation of its readiness for distribution. Probably it will be in the hands of our readers before these pages. We will do our best to have it issued earlier in future.

#### Training a Grape Vine.

52. Sir,—Would you kindly inform me in your next issue which is the better method of training the grape vine—on the upright or on the arbor trellis?—A. M., Brampton.

FOR field culture, or in a vineyard of any size the upright trellis is decidedly the most convenient, for pruning and for laying down in winter, and for gathering the fruit. But for a few vines in a garden the arbor trellis is much more artistic, and gives an opportunity for training much longer arms of bearing wood to each vine.

#### Greenhouses

53. Can you tell me of a work on the construction of a small greenhouse?—J. M., Bowmanville.

VOLUME VIII. of the CANADIAN HORTICULTURIST, p. 88, *et seq.*, has a good article with working plans on this very subject.

#### Slag as a Fertilizer.

54. Can you give your readers any information about a fertilizer recently introduced amongst the farmers in England called basic

flag? It appears to be the slag from furnaces ground to powder, and broadcasted over the land. What crop is it suited to? One would think such material could be sold cheap, and therefore, if good as a fertilizer, worth the consideration of our farmers. It would also introduce a new business to our manufacturers.—A. STROTHER, Niagara Falls, South.

*Reply by Prof. Panton, Ontario Agricultural College, Guelph.*

THIS basic slag now coming into use in England owes its value largely to the presence of the phosphoric acid it contains. In this ground up material the phosphorus passes into combination with the lime in the slag and forms a calcium phosphate generally containing a large excess of lime.

From experiments made, this slag has about half the value of a super-phosphate and seems to act more vigorously in soils rich in vegetable matter.

It is also useful on soils where quantities of phosphoric acid are desired for years in succession.

In vineyards and orchards, the slag offers a good means of furnishing the subsoil with a store of phosphoric acid, which will keep up the supply needed by plant life. The acid in this fertilizer is more soluble than in some others, for instance, 14 per cent in this gave better results than 25 per cent. in coprolites (another source of phosphorus). What has been said refers to slag from furnaces in Britain. Iron ores here may not yield nearly so much phosphorus and consequently is of less value. There is no doubt, that where the analysis gives 14 per cent. of phosphorus, slag will be a good fertilizer to supply soils requiring this mineral ingredients; but before we can speak of slag from Canadian furnaces much information is required.

#### Trouble with Hyacinths.

55. I bought some Hyacinths last fall and they came along very well until the flower put in an appearance and then it died away. Can you explain the reason in your question drawer and oblige, A. H., Yorkville.

*Reply by H. Simmers, Toronto.*

THE Hyacinths, withering in the bud as you describe is not uncommon

where gas is used in the apartment in which the bulbs are grown. My recent experience has proved that bulbous roots generally are more averse to coal gas than any other class of plants usually grown in windows. If you will say where you grew your bulbs, I can better define the cause of the withering of the flower bud. Do you burn gas? If you answer this question for me in the next issue, I will take an interest in the matter and explain in such a way that you will be able to avoid the natural disappointment you must experience with bulbs which so decay.

#### The Tree Cricket.

56. Enclosed please find pieces of my Russian cherry which seem to be affected by some disease, or else from some insect. Kindly inform me of the danger, if any.—E. ROBINSON, Glendale, Ont.

THE twigs of your cherry are affected by a common insect enemy, the Tree Cricket, known to entomologists as *Oecanthus niveus*. It is especially troublesome to raspberry canes by depositing its eggs in them in the autumn, and frequently also injures the young twigs of the plum, peach, and cherry in this way. The female has a long ovipositor and with this she pierces the young wood in autumn obliquely more than half way through, and in the opening places one of her yellowish eggs. Ten or fifteen eggs are thus placed in a row, side by side, as in the sample you send. The limb thus affected is henceforth useless, and should be cut off and burned before the warm weather hatches out a fresh progeny.

#### Plums.

57. Could you advise me about the best varieties of plums to plant?—T. RICHARD, Alvin-ston.

EVERYTHING depends upon the purpose for which you wish to grow plums. If for market, the following varieties should be profitable in Lambton, viz:—(Yellow) Coe's Golden Drop, Imperial

Gage, Gen. Hand, Jefferson, Washington and Yellow Egg; (purple) Glass and Columbia; (red) Bradshaw, Lombard and Pond's seedling.

### Small Fruit Culture.

58. Where can I procure a book on this subject.—T. R., *Alvinston*.

WRITE Orange Judd Co., 751 Broadway, New York, for catalogue.

### Apples for Profit.

59. Which varieties would you advise?—T.R.  
SEE April No., page 92.

### Vinegar from Tomatoes

60. 1. Can vinegar be made from the expressed juice of green or ripe tomatoes, as from apple juice?—J. P. W., *Horning's Mills, Ont.*

*Reply by Mr. D. W. Beadle.*

I never made any vinegar in my life. From what little I know of chemistry, I should say he would not be able to make vinegar from green tomatoes, and I do not know whether there is enough sugar in ripe tomatoes to make vinegar, never having made any experiments with tomato juice in this direction.

### Destroying Mildew.

61. 2. In your paper, page 285, year 1886. reference is made to dusting grape vines with "sulphate of iron and lime." Would this be equally efficacious for the mildew on gooseberry bushes? If not, would sulphur and unleached ashes be an efficient application? The sulphur killing the parasite, while the ashes stimulate the bush to renewed vigor.—J. P. W.

*Reply by Mr. D. W. Beadle.*

SULPHATE of iron and lime are both destructive to vegetable fungi, and I presume would be efficacious for the destruction of mildew on gooseberry bushes, if applied in season. I would expect better results from the sulphate of iron and lime than I would from the sulphate of iron and unleached ashes. If the gooseberry plants need fertilizers, I suggest an application of nitrate of soda and superphosphate of lime to the soil. I have never used the sulphate of iron and lime

mixture on gooseberries with a view to destroying or preventing mildew, as I do not cultivate in my garden the varieties of gooseberries subject to mildew, preferring to grow those that are not subject to mildew, and so save myself the trouble of applying fungicides.

### Growing Black Currants.

62. On page 134, year 1885, T. A. H. gives a method for growing the black currant. Would results from this be productive of more and better fruit than the ordinary mode of procedure?—J. P. W., *Horning's Mills*.

*Reply by Mr. D. W. Beadle.*

I HAVE never tried T. A. H.'s plan of growing black currants or alternating cutting back, so as to produce young wood upon which to grow the fruit. Theoretically, it seems to me probable that the results might be productive of more and better fruit; yet I have never tried the experiment, and your inquirer would do well to make the experiment and let us know what the result is.

### Lawn Failing.

63. This spring my lawn looks very bad, some patches, twelve feet square or more being killed out; there are other smaller places where the grass is about dead. I have always taken a great deal of pride in having a fine lawn—it is about twelve years since it was sodded—every one remarking how very thick the grass was. Some two years ago I had a tank put up so that I could keep it green during the hot weather. I have a lawn sprinkler that I used a good deal; some days I had it running for an hour or two during the hot sun. I thought perhaps that might have been the cause of it dying out. Last year it was something similar, only not quite as bad, and it seemed to come again quicker. I have manured it in the fall with fine rotted manure for the last few years. I would be obliged if you could give me any information with regard to its dying out.—Wm. CRAIG, JUN., *Port Hope*.

*Reply by John A. Bruce, Hamilton.*

In replying to Mr. Craig's letter respecting the bare spots on his lawn, it is rather a difficult matter to assign the correct cause for such; it may have been caused by continuous watering from tank during bright sunshine. Ants frequently disfigure a lawn; a white grub, and often the common

wireworm, works a deal of mischief; have seen snow lie till late in the spring, and form into a mass of solid ice, under it the grass would be killed; it seemed to rot, probably from want of air. Would recommend Mr. Craig to dig up the bare spots and incorporate some new soil, resod or sow with lawn seed.

#### Coal Ashes.

64. Coal ashes are strongly recommended for pear trees, etc. Is it necessary to apply manure also?—W. W. R., Toronto.

COAL ashes are of little or no value as a fertilizer. Their chief value for pear trees would be as a mulch, serving to keep the ground moist, and thus promote growth. If the soil needs enriching, certainly coal ashes would not make it so. Wood ashes are a very valuable fertilizer for all orchard trees, including the pear, because it is about one-tenth potash, a substance which constitutes about one-half the ash of the fruit, while the rest of it is chiefly lime and phosphoric acid, elements which also largely enter into the composition of fruits. With wood ashes, there will be no need of any other manure; indeed, the nitrogen of barn-yard manure tends to promote too rapid and succulent a growth of the pear, and predisposes it to blight.

#### Grape Syrup, or Condensed Must.

*Reply to Question No. 15.*

*The Wine and Fruit Grower*, a monthly journal published in New York city in the interest of wine makers and vineyardists, replies to question 15 as follows:—

"We presume the inquirer is talking about condensed grape must. Any fruit juice containing sugar can be condensed into a sugar or syrup by the application of heat. But as great chemical changes are wrought by the heat, it is of the first importance that it should be applied in such a manner as to preserve the constituents of the must in their

original relations as nearly as possible. This cannot be done by "boiling," as maple syrup or sugar is made; it must be done by the application of heat in such a way that the temperature at no time exceeds 140° Fahrenheit. If the higher temperature is reached, the constituents are broken down and return to their original elements, and the volatile oils containing the bouquet is dissipated by evaporation. The product will then have a cooked or burnt taste and smell, and become flat and insipid, and the mineral salts only will remain unchanged. It is clear, therefore, that a method should be adopted by which evaporation could be secured at a low temperature, and this has been done. Two processes have been patented—one an Italian invention known as the Yaryan process, and a German known as the Springmühl process; both are in operation in California, and 1000 tons of grape must was condensed this season and shipped to London.

"Now as to how it may be done by simpler or home-made appliances, our correspondent will see that it will be necessary to have a jacket-kettle, or evaporating pan, so arranged that the must shall be protected from direct fire heat by a column of water, and that a thermometer must be kept in the fluid constantly so as to watch and regulate the degree of heat. The best apparatus would doubtless be a jacket-kettle made of copper, so arranged that the must could be stirred, as the stirring would shorten the operation. This answers the first and second question.

"Now as to where to purchase such an apparatus, we presume it could be got at any copper-worker's shop where distillery and sugar-house utensils are made. Coppersmiths are to be found in all cities.

"The fourth and last question involves several considerations. It may be said there is no regular market demand for condensed grape must. The fact that the must from 600 tons of grapes used

last year and the 1000 tons used this year was all sold off en grosse to a few large operators, does not signify a regular market demand any more than one swallow makes a Summer. But we think that there will be a demand for all that will be made and offered in a merchantable condition. There is doubtless a big field open to its use in cookery. The fact that there are from 400 to 600 grains of Tartar in every gallon of natural must, would seem to point out that it might easily become an important factor as a mixing ingredient in any article where an aerating

agent was required. All there is needed is a little baking soda sifted in with the flour and other necessary ingredients, and the whole wet up with a little condensed must dissolved in water to make fine biscuit or sugar cakes, etc. Then again it is so easy to make a nice harmless beverage by adding a little water and cooling on ice, at once food and medicine, as nothing is better for indigestion. We have no doubt that inside of five years condensed must in jars and cans will become as much a part of every grocer's stock as canned corn or any other canned or preserved fruits."

## OPEN LETTERS.

### *Caragana Arborescens (Leguminosæ).*

SIR.—All who have seen the *Cytisus Laburnum*, when in full flower, could not fail to admire its beautiful racemes of yellow blossoms, which are very appropriately named, Golden Chain; but unfortunately we here living in Canada, or at least in the greater part of it, have not the pleasure of beholding such a gorgeous floral display. Yet we can secure a substitute which is very closely allied to it, namely the *Caragana Arborescens*, and of the same color, but not racemose, although abundant in blossom, giving the small tree a very attractive appearance. It is perfectly hardy in our climate, being indigenous to Siberia. Planted among other flowering shrubs or trees of different colors it would evidently produce a pleasing contrast. If it was better known it would be more generally planted.

Probably some of our enterprising nursery men have it in stock, and if not some of the large nurseries in the States that deal in novelties will likely have it. Yours,

SIMON ROY.

Berlin, 9th Feb., 1888.

### Experience with the Currant Borer.

MR. T. H. RACE, of Mitchel', writes that he had in 1884 two rows of currant bushes of thirty bushes each just coming nicely into bearing. But in June he noticed the tops turning yellow, caused, as he soon found, by the currant borer. Not being willing to sacrifice the affected canes in order to carry out the usual remedy of cutting them out and burning them, he spread dry hardwood ashes about one row, to a depth of one or two inches, and about 2½ ft. on each side. As a result that row made a much stronger growth than the other one, and the following season there was not a borer in that whole row,

while the one not so treated was fully worse affected than before. He adds:—

Three years ago I treated the second row the same way, and for the last two years my White Grape, Cherry, Moores' Ruby, and Fay's Prolific currants have been the chief attraction of my garden.

This is my theory:—The parent fly is supposed to deposit her eggs in the currant bush during the latter part of July or early in September burrowing in the ground immediately under the bush during the day time and coming out after nightfall. The ashes were applied in the beginning of July, and they either caught the fly in the soil at that time and killed her, or they prevented her from finding a refuge there and drove her to more inviting quarters. Has anybody a better theory to offer?

NOTE BY EDITOR.—The cutting off and burning of the old wood which is sickly because hollowed by the borer is not so objectionable a plan as it would seem at first, because it promotes the growth of young vigorous wood which is more fruitful than the old canes. If the old canes were annually thinned out, and a plentiful supply of young wood always encouraged, there would be little trouble with the borer. Wood ashes are an excellent fertilizer, there is nothing more valuable.

### Fruit in Manitoba.

SIR,—I am very much interested in fruit culture, but in this province we are restricted to small fruits. Apples, cherries, plums and pears are failures here so far, until some more hardy varieties are introduced. Such strawberries as Wilson and Crescent succeed fairly well with us, although the last two seasons have been rather dry for successful crops. It

would be a great boon to Manitoba if a hardy enough variety of apple tree could be found to resist our winters, but on the prairies shelter belts will require to be grown before any success will attend our efforts. After a residence of fourteen years in Manitoba I have come to the conclusion that the best conifer to plant in Manitoba is the Scotch Pine. I have tried a number of other kinds of evergreens, all from seed, but the Scotch Pine is the best. Of the deciduous trees the native Box, Elder or soft maple is the most hardy and rapid grower on our prairies.

ALEX. STEPHENSON.

Melrose, Man.

### The Apple Prospects for 1888.

MR. JOSEPH TWEDDLE, of Stoney Creek, writes that after five years of very discouraging experience in apple growing, owing to the fungus spot, insect enemies, he believes that growers have reason now to take courage and prepare for better crops. The fungus has apparently disappeared for a time, the dark green foliage of the past season shows a more healthy condition of the trees, and the insects can now be successfully destroyed with Paris Green. He says,--Experience has shown those who have sprayed their trees the past season, that it saves the crop. One prominent fruit grower of Winona harvested and sold nearly \$200 worth of apples off an acre thus treated, while on ten acres of young orchard not sprayed not a bushel of good fruit was produced. The trees were of the same age, and of the same varieties. I neglected to spray my own orchard, and although a fair crop set, nearly all were destroyed by the Codling Moth. I don't intend to be caught napping another year.

### Death of Mr. George Smith, Port Hope.

SIR.—I regret I have to announce the death of our old friend, Mr. George Smith, who for a number of years acted as your agent here.

He went up to Barrie with his son, hoping the change would do him good, but he died in less than a week after.

P. GEORGE WATSON.  
PORT HOPE, 9 May, 1888.

### Forestry.

SIR.—You know the estimate of the humorist on Horace Greeley's "What I know about farming." When I began to talk about forestry I found myself about as far on, and in my endeavor to learn something of the subject I conclude there is hardly any one in America who knows anything of forestry.

I would like very much to appeal to Prof. B. E. Farnow, the director of forestry for the United States, but I hold back, as the opinion I express would not be in as good taste if it came from him.

In the last number of *Garden and Forest* the question is asked, "Why is it not the best policy to cut out the mature wood from a primeval forest and let the rest grow?" and it is answered by the professor—probably the only possible answer is given, but to me it seems to mean that for a man who knows nothing of forestry, any course would probably be wrong.

There is one gentleman in Canada supposed to know something about trees, but I find him flatly contradicted in the public press on some points about timber on the prairie by a settler in the North-West.

*Garden and Forest* tells of another gentleman, a city forester (in Boston, I think), who proposed to destroy canker worms on the elm trees by boring a hole in the tree and inserting some mysterious powder, and says "it seems incomprehensible that a man in such a position could be guilty of such quackery."

At a late public meeting of a Farmers' Institute a botanist took credit to himself for establishing the fact that the black walnut is hardy in Eastern Ontario; and in some Ontario reports great doubts are expressed on the point. But I find that there are plantations from twenty-five bushels of nuts, now large enough to bear fruit in Lower Canada.

I need not quote all the diverse opinions of tree planters basing their views on special experiences or hasty conclusions. I will overlook a genuine mistake too, and congratulate a man who confesses ignorance or error. I want to learn from them all. When I first took an interest in forestry, I enquired into all these attempts and tried to follow up all that my neighbor writers or public men could tell me of the subject, seldom, however, to find the fact just what was first reported.

After noting all that tree planters and tree owners could tell me, I suddenly found out, that arboriculture was not forestry. Now, sirs, in your varied experience, if you have tried forestry I would like to know if there is any thing to be learned of forestry in Canada; and I may say that I am now quite conceited as to what I know about forestry, and I think I have told you how far I have got.

FOREST BEFLISSENER.

April 10th, 1888.

NOTE BY EDITOR.—We are pleased to say that we have the promise of a series of letters under this head from a gentleman who is practically engaged in the work. He writes under the name de plume of "Forester," and his subject for this number is "The Wood Lot."

## REVIEW.

## Reports.

CENTRAL EXPERIMENTAL FARM, OTTAWA.  
*Report of the Entomologist and Botanist.* Jas. Fletcher, F.R.S.C., F.L.S., 1887.

We would call the especial attention of the fruit growing community to the excellent prospects of valuable assistance in the prosecution of their work now opening up in connection with the Experimental Farm at Ottawa. Here are employed by the Dominion Government the best specialists available in agriculture, horticulture, chemistry, entomology and botany, upon 400 acres of choice land, beautifully situated, with every appliance that money can furnish, all for the benefit, without charge, of every Canadian farmer who chooses to avail himself of the privileges thereof. And with such a man as Wm. Saunders as Director, whose qualifications for his position are acknowledged to be exceptional, we have especially occasion for hopefulness.

From the authorities of the farm reliable information may be had upon any question affecting the interests of the farmer, fruit grower or gardener, without charge, and even letters go free of postage.

This report contains forty-two pages, descriptive of insects affecting cereals, root crops and vegetables, fruits and forest and shade trees, with description of latest known remedies. It may be had free on application.

AMERICAN POMOLOGICAL SOCIETY. Session of 1887. The proceedings of the twenty-first session of the American Pomological Society, held in Boston, Mass., September 14th, 15th and 16th, 1887, together with the State fruit reports and catalogue of fruits, published by the Society, 1888.

The president of this society is Mr. P. J. Berckman, Augusta, Florida; the secretary, C. W. Garfield, Grand Rapids, Michigan, and the vice-presidents represent the States in the Union and the Provinces of Canada. All progressive Horticulturists who study their profession from a scientific standpoint, should unite with this society, which is so thoroughly disengaged of all local interests. One paper of considerable interest in this report is that by H. E. Van Deman, chief of the Department of Pomology, on "Identification of Varieties of Hardy Orchard Fruits." Such subjects as "Commercial Fertilizers," "Pests of the Pomologist," "Behaviour of Fruits in different Altitudes," etc., are ably treated upon. A valuable scientific paper is also included by Charles Gibb, of Abbotsford, Que., which may also be obtained separately from the author, on "The Nomenclature of our Russian Fruits." This paper deals with no less than 988 varieties of apples alone. The catalogue of fruits at the end is not the least important part of the book, shewing as it does the varieties best suited to each state.

REPORT OF THE SECRETARY OF THE STATE BOARD OF AGRICULTURE, State of Michigan, 1886-1887. H. G. Reynolds, Secretary. Agricultural College, Mich.

This, a volume of 565 pages, bound in cloth, and contains Department Reports, Bulletins of the Agricultural College, and a Review of the various Farmers' Institutes, held during the winter, with copies of principal papers read and discussions thereupon. It seems to us that Canada is behind her neighbor in this particular, and that very much valuable matter might be gleaned at our various institutes, which should be printed for the general good.

THE WESTERN NEW YORK HORTICULTURAL SOCIETY. *Proceedings of the thirty-third annual meeting, held at Rochester, Wed. and Thur., Jan. 25 and 26, 1888.*

A pretty full report of this meeting has already appeared in these columns.

THE MONTREAL HORTICULTURAL SOCIETY. *Reports for 1884-5-6, bound in one volume.*

A very creditable volume. It lacks, however, one very important feature and that is a complete index at the end of the whole three volumes. How much valuable information is often locked up in our libraries beyond our reach just for lack of indexes.

THE MASSACHUSETTS AGRICULTURAL COLLEGE. *Twenty-fifth Annual Report, January, 1888. H. H. Goodell, Amherst, Mass., President.*

FORESTRY CONVENTION. *Proceedings of Convention held in Grand Rapids, Michigan, January, 1888. Bulletin No. 32. Agricultural College.*

## Miscellaneous.

BURBEE'S HOW AND WHAT TO GROW IN A KITCHEN GARDEN OF ONE ACRE. Fully illustrated. Paper 50c. W. Atlee Burpee, 475 N. 5th St., Philadelphia, Pa. A really practical and useful book.

HINTS ON CACTI. A. Blanc & Co., 314 North Eleventh St., Philadelphia, Pa.

Far more than a mere catalogue, this book contains beautiful pictures of all the more interesting Cacti, together with valuable hints for their cultivation.

ELLWANGER & BARRY'S CATALOGUE. Mt. Hope Nurseries, Rochester, N.Y.

Three catalogues bound together in cloth, making a complete and invaluable descriptive list, first of fruits, second of ornamental trees, shrubs, etc., thirdly of strawberries, and fourth of select roses.



## Nigella.

The double blossoms are surrounded by a mist-like veiling of a finely cut foliage, and is often called "Love-in-a-Mist," or "The Lady in Green." A writer in the *Mayflower* thus beautifully speaks of it.

I'm in love, said Sweet William,  
I cannot deny it;  
It disturbs all my rest  
And destroys all my quiet;  
She's the fairest and dearest that ever was seen,  
The sweet little lady who lives in the green.

Her eye is so mild,  
So tender and blue;  
Her dress is so dainty  
And modest in hue;  
Her smile is the sweetest I ever have seen,  
My dear little lady who lives in the green.

Her name is Nigella.  
Don't tell it, I pray,  
Lest the bee and the humming bird  
Hear what I say;  
For their gossip might frighten my fair little  
queen  
The sweet little lady who lives in the green.

## Landscape Gardening.

THE so-called landscape-gardener is in many cases not as intelligent as an ordinary every-day laborer; his object seems to be to have as many narrow and contorted walls as possible where they are not needed, to plant many trees and shrubs in the most inappropriate places, to make ridiculously-shaped beds, and to plant them with but one object—to use as many plants as possible without regard to suitability. It is surely worth the attention not only of those engaged in the business, but of gentlemen who have country houses, to consider at least the fundamental features of landscape-work and landscape-art. There can be no stereotyped plans for the embellishment of grounds; each domain calls for different treatment and different grouping.—*Century*.

## Among the Blossoms.

BY MRS. J. C. YULE.

MAY's softest perfumes sent the balmy air,  
Around, beneath, above, and everywhere;  
But one fresh bud in spring's young beauty dressed,  
Excelling and outvaluing all the rest,  
Leans with soft blush-rose cheek on a young mother's breast.

Far from the pomp of cities and the gleam,  
Radiant yet false, of Fortune's fickle beam,  
Amid the shade of overhanging hills,  
'Neath whose grey cliffs the softly chiming rills  
Creep forth with music murmurous and low,  
Each tender petal with untold grace  
Shall shed increasing sweetness round the place. 1

Will the full blossom as the bud be fair,  
Of hope fulfilling all the promise rare?  
Oh, guard it well, you, to whose care is given  
Life that may bloom amid the bowers of Heaven,  
Vieing with angelhood in all the bright  
Effulgent glories of that world of light!  
Rear for the Master's use this flower of love  
To bloom at length in fairest bowers above.  
On Heaven's own air its perfumes soft to pour,  
Nor dread the frosts of earthly winters more.

Beautiful Valley, Grimsby, May 27th.

## How to Dry Flowers.

TO preserve the color when drying flowers it is necessary to dry them as quickly as possible. Almost all, except fleshy flowers, will keep their color well if placed between two sheets of blotting paper and ironed. The iron must not be too hot. To retain the color of red orchids, dip the flower while fresh in a mixture of four parts spirits and one part spirits of salt. (Take care not to let this mixture fall on clothes, as it will burn them.) Let the fluid dry off the flowers by exposure to the air, and press them in the usual way. To glaze flowers, use any transparent varnish. The secret of pressing flowers and leaves is to frequently change the paper in which they are placed and to avoid too sudden pressure at first.—*American Horticulturist*.