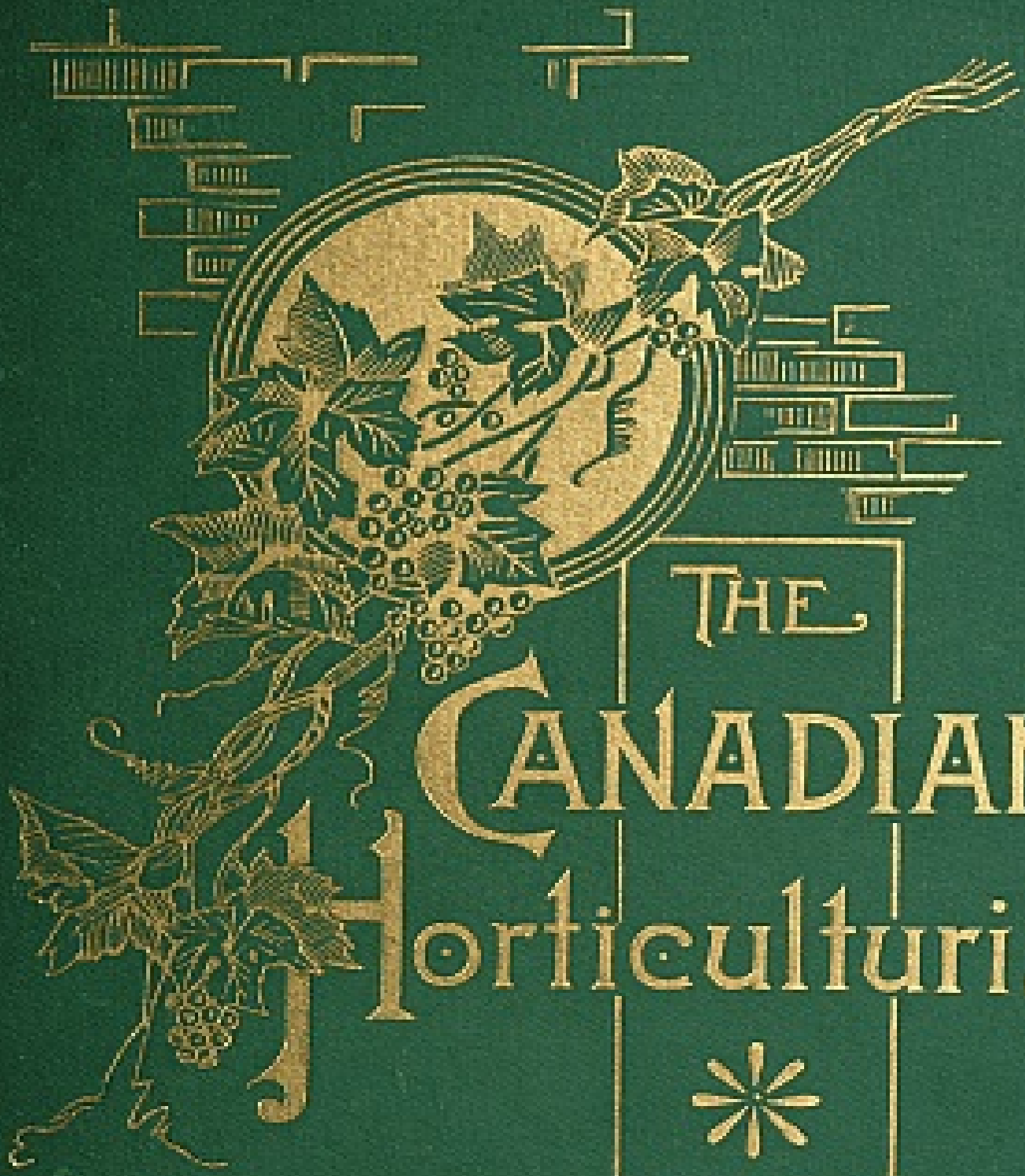

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The Canadian Horticulturist.

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VOL. I.] ST. CATHARINES. [NO. 1.

THE CANADIAN HORTICULTURIST

The Directors of the Fruit Growers' Association have long felt the importance of having a monthly publication as a medium of communication between the members, and a means of imparting information on subjects of interest, more frequently and promptly than can be done by the Annual Report. And now, after careful deliberation, they have decided to make the experiment, and commence to-day the issue of the HORTICULTURIST, in the hope that it will find favor with the members. It will be devoted chiefly to the publication of such information as is sought after by those who are interested in fruit culture, yet not neglecting those kindred subjects which are closely connected with that pursuit. The lover of fruits is also usually a lover of flowers, and delights to surround the house with a well kept lawn. It will therefore contain occasional articles intended to guide and help those who seek to cultivate flowering plants and shrubs, and to make their grounds bright with summer flowers. And if the less showy, but not less important vegetable garden should have a place now and then in these pages, there are those among the readers, it is believed, who will welcome any timely information in this department also.

But while the Directors will spare no pains to make the HORTICULTURIST acceptable and profitable, it will nevertheless be, in a very large degree, what the members shall make it. If they shall use it as the medium through which they tell each other of success and of failure with particular fruits, flowers, trees, &c., and in which they ask for information upon doubtful points, then will it become what the Directors hope, a mirror, in which is reflected continually the Horticultural progress and skill of Ontario. They ask therefore that the members will regard it as their publication, put forth in their interests, to help them in whatever way it can, and to be used by them for the promotion of Horticulture in this Canada of ours.

THE BURNET GRAPE.

As long ago as in the Autumn of 1873, Mr. P. C. Dempsey, Albury, Prince Edward County, exhibited at the Fruit Growers' meeting a few bunches of a grape that on account of the beauty of its appearance, its earliness of ripening, and delicacy of flavor, attracted much attention and called forth universal praise. In due time a committee was appointed to visit Mr. Dempsey's grounds and examine the vine and fruit; and such was the character of their report that the Directors requested Mr. Dempsey to propagate it largely, so as to be able to supply the Association with vines sufficient to give one to each member. Since this arrangement was made, the members have become familiar with its general appearance through the colored lithograph which was presented to them in the Report for 1876. Mr. Dempsey has given to this excellent grape the name of our honored President, and henceforth it will be known in the Pomological world as the "Burnet" grape.

This grape was raised by fertilizing the Hartford Prolific with pollen from the Black Hamburgh. The vine seems to possess much resemblance to the Hartford Prolific, is a vigorous grower, of robust and healthy constitution, very productive and hardy. The fruit is very like that of the Black Hamburgh, the bunch is large, slightly shouldered; berries large, sweet, and delicately flavored, having nothing of the foxiness of the Hartford Prolific. The flesh is tender, almost melting, with none of the tough pulpiness of the most of our hardy grapes. It also ripens early, somewhat earlier than the Hartford Prolific, and considerably before the Concord. Our members are to be congratulated on the reception of so valuable a grape—one that gives promise of being held in lasting estimation as a variety of unusual excellence, and adapted to general cultivation in nearly all parts of our Province. It will be sent to all who are members this year as early in the Spring as the season will permit.

WINTER MEETING.

The regular Winter meeting was held in the City of Hamilton, on Wednesday, the sixth of February. The President, Rev. R. Burnet, took the chair; and after the reading of the Minutes by the Secretary, introduced to the members Mr. Craig, Secretary of the Agricultural and Arts Association, of Ontario, and Mr. J. B. Jones, delegate from the Horticultural Society of Western New York. The gentlemen were most enthusiastically welcomed by the members, and addressed the meeting in a few well-timed words of hearty interest in the object of our Association.

Mr. Chas. Arnold—our accredited delegate to the Winter meeting of the W. N. Y. Horticultural Society—read his Report of what he heard and saw on that occasion. He stated that there was an average attendance during the two days of the meeting, 23rd and 24th of January, of about one hundred and forty intelligent fruit growers from all parts of the State of New York, and adjoining States. The evening session of the 23rd was largely taken up with a discussion upon the best means of destroying the Codlin Moth. One gentleman spoke for nearly two hours, advocating the merits of his patent invention for catching the larvæ of this Moth. (Our cousins are highly gifted in the talking line, and are an exceedingly inventive people.) This invention consisted of a piece of water-proof paper or pasteboard, lined with cotton batting. This was to be placed, in the form of a band of about three inches in width around the trunk of each tree, with the cotton batting next to the tree, and occasionally taken off and the larvæ found therein destroyed. Another man had applied for a patent for substantially the same thing, only in this case the cardboard was punched full of holes, and the cotton batting pressed into the holes. It was fully admitted by all who took part in the discussion, that the Codlin Moth was a very serious pest, and that every owner of a pear or apple tree should wage a war of extermination against it. The larvæ will take refuge under anything that gives them shelter and security, hence any contrivance that offers them a hiding place will be sought by them, and can be used as a trap for catching and killing them.

A very convenient trap has been made by fastening a strip of old carpeting or of cotton flannel around the trunk of the tree, and removing it every week or ten days and passing it through an old clothes-wringer, so as to crush the larvæ that have taken refuge in it, and then putting it back around the tree. Those who desire to inform themselves more fully on the subject of the Codlin Moth, will find much valuable information in the entomological part of the Report for 1870, page 91; for 1872, page 5; for 1874, page 43; and those who have only the Report for 1877, will find the insect figured in all its stages of existence at page 46 of the entomological part.

Mr. Arnold further reported that the morning session was taken up by the reading of essays, some of them containing much valuable information. The essays were upon our public roads; gathering, marketing, and preserving apples; small fruits; spring flowering shrubs; the kitchen garden; horticultural botany; roses, and weeping or drooping trees. But few fruits were exhibited. A plate of the Columbia pear was the finest plate of Winter pears he ever saw, judging from the appearance merely, as no opportunity was given him to test their flavor.

Reports from different parts of the State shewed that an immense revenue is derived from the sale of apples. Niagara County alone reported sales amounting to three hundred thousand dollars. Other counties reported as high as five hundred thousand dollars worth of apples, besides large sums for pears and other fruits.

Mr. Arnold closed his Report by expressing the hope that the day was not far distant when reports similar to those made to the Western New York Society, will come from many counties in Ontario, where both soil and climate are certainly equal to any portion of the State of New York; and ventured the prediction that in view of our already great and yearly increasing facilities for shipping, the growing of first class fruit in Ontario must be profitable for many years to come.

The subject of fruit statistics, brought before the meeting by Mr. Arnold's closing remarks, was briefly discussed, and Messrs. Burnet, Beadle and Bucke were appointed a Committee to interview the Government, and devise means for obtaining reliable statistics of the quantity and value of the fruits raised and exported from Ontario. A resolution was also passed requesting the railways to incorporate in their annual report on the crops, the condition and extent of the apple crop.

The discussion now turned upon the Canker Worm—an insect pest that is doing considerable damage to apple orchards in some sections. A full description of the Canker Worm, and engravings shewing the insect in all its stages, from the egg to the moth, will be found in the entomological part of the Report for 1870, at page 86; also a very full article on the Canker Worms in the same part of the Report for 1875, page 25. Mr. Bowman, of Hamilton, said that for the past two years they had stripped the leaves completely off from some two or three hundred of his apple trees—they did their work early in Spring, and disappeared about the 15th of June. He had read that syringing the trees with a mixture of Paris Green and water was complete destruction to the worms. Mr. Woolverton, of Grimsby, had suffered severely from the Canker Worms, and had tried several means of preventing their ravages. He had tied bandages around the trunks of the trees and smeared them with pitch tar, and found this a very easy and successful method of destroying the female moths. The tar must be renewed as often as it becomes hard, or the moths will crawl over it. Last year he had applied Paris Green in water with a garden engine, and found that also very beneficial. This must be done very early in the season, as soon as the buds burst, to be effectual. He had also tried fall ploughing of his orchard in the end of October, and thought this also had been beneficial, by lessening their numbers. Mr. Smith, of Glanford, suggested that a mixture of castor oil and resin,—such as is used in making the sticky fly-paper—might be found useful, though in cold winter weather it would become too hard. Molasses mixed with tar was also suggested, but rains will wash the molasses out and leave only the tar. D. W. Beadle, of St. Catharines, remarked that the use of some sticky substance, over which the wingless female moths could not crawl, would be found to be the most certain and convenient method of preventing their ravages.

P. E. Bucke, of Ottawa, read an able paper on irrigation, which was heard with marked interest and attention. This paper has been handed to the Secretary, and will appear in full in the Annual Report.

A. M. Smith, of Drummondville, called attention to the Yellows in peach trees, a disease which has been very destructive to the trees in many places, and was making its appearance in this Province. His views are given more fully in an article on this subject which will be found in this number.

The meeting proceeded to the consideration of the benefits of shelter to peach orchards, and the trees which are the best to plant for this purpose. C. M. Honsberger, of Jordan Station, had planted his peach trees between the rows of apple trees, and let them take their chances, but now, however, had been induced to plant some evergreens on the south-west side for a wind-break, and had set out a row of Norway spruce. W. Haskins, Hamilton, spoke of fifty acres of peach orchard at Navy Island in which he was interested, and said that the best trees and the best fruit were to be found in that part of the orchard that was sheltered. He was also convinced that good cultivation of the soil was just as necessary for the production of fine peaches as for anything else. A. M. Smith would protect peach orchards on the south, south-west and west. W. Holton, Hamilton, remarked that the peach orchards about Brantford seemed to thrive best on a poor soil where they were sheltered, and that in the rich hollows they did not succeed. He thought that our native arbor-vitæ, or as it is often called, white cedar, and the native white pine, and black spruce were excellent trees to plant for shelter, and easily procured. Chief Johnson, of Tuscarora, thought the sugar maple an excellent tree to plant for shelter. P. C. Dempsey, Albury, advocated planting the basswood, because it grew rapidly, afforded as good shelter as any deciduous tree, and from its blossoms the bees gather the best honey, fully equal to, if not better, than white clover honey. W. McKenzie Ross, Chatham, spoke favorably of the Scotch pine, because it was a hardy tree and rapid grower. J. Croil, Aultsville, thought that the Norway spruce was the most valuable tree for shelter belts, it being even a more rapid grower than the Scotch pine, very dense in its habit and symmetrical in form. D. W. Beadle, St. Catharines, concurred fully in this opinion; he had seen this tree planted around a large field devoted principally to a pear orchard; in a very few years it had attained to a height of ten or twelve feet, and was quite dense. He believed also that at present it was the cheapest tree that could be planted, cheaper than gathering up the white pines and spruces of our forests, for the reason that the Norway spruce having been several times transplanted, was very sure to grow, and could be bought, of small sizes, about as cheap as the cost of digging up the native trees. W. Roy, Owen Sound, spoke favorably of the Norway spruce, Austrian pine, and Scotch pine as shelter trees. J. B. Jones, Rochester, N. Y., spoke highly of the Norway spruce, saying that it was a hardy tree, easily transplanted, easily kept within any desired limits, and comparatively inexpensive. The European larch was also a graceful tree, of rapid growth, and very cheap.

On the subject of fertilizers for fruit trees, Mr. Robertson, of Oakville, said that in sandy soils he had found that the application of clay around the trees proved to be very beneficial and lasting in its effects. L. Woolverton, Grimsby, had

also used clay around trees growing in sandy soil with marked benefit. P. E. Bucke, Ottawa, suggested the use of mineral phosphates, and spoke of the large beds which had been found near Ottawa, whence considerable quantities were being shipped to Europe. J. McGill, Oshawa, thought wood ashes to be one of the very best fertilizers for fruit bearing trees. C. Arnold, Paris, preferred barn-yard manure, this he considered preferable to all other fertilizers, believing it contained all that was needed both for the tree and the fruit. J. B. Jones, Rochester, N. Y., would apply lime and ashes liberally to orchards growing in heavy soils, occasionally plow under some green crop, and apply barn-yard manure. He remarked that the practice of composting barn-yard manure, and allowing it to stand some time in large heaps, where it would ferment and decay, was now believed to be erroneous, and that the best results were obtained by applying it to the land as quickly as possible, without allowing any opportunity for fermentation.

The Report of the Committee on fruits was read. This occasioned a short discussion on the value of the Ben Davis apple. W. Holton, Hamilton, remarked that he feared many planters of this variety would be disappointed in the quality of the fruit, it not being equal in this respect to many of our older sorts. The tree was hardy, and it might on that account be a valuable sort to plant where the higher flavored kinds could not be grown. P. C. Dempsey, Albury, remarked that one of his neighbors had found it a very profitable orchard variety.

The Summer meeting will be held in the city of St. Catharines, on Wednesday, July 10th, at ten o'clock A. M.

CHINESE PRIMROSES.

We commend these beautiful plants to our readers for the reason that we have found them among the most desirable and satisfactory for window cultivation of all the various things we have grown in the sitting room. They are very abundant bloomers, and keep up a succession of flowers for many months, so that from December to May they are continually bright and beautiful; they are easily grown by the merest novice in plant culture, requiring only to be kept from the frost, and regularly supplied with water. They can be had of several shades, red, pure white, and striped red and white, and both single and double.

ONE OF OUR COMMON INSECTS.

BY W. SAUNDERS, LONDON, ONT.

Most of our readers will recognize in the accompanying cut, FIG. 1, an object with which they are more or less familiar, although they may know little of its origin or the nature of its contents.

FIG. 1.

During the Winter months, when our trees and shrubs are leafless these curious silky structures are readily seen, and are found on many different trees and shrubs, but perhaps oftener on the twigs of apple trees and currant bushes than anywhere else. They are the cocoons of a very large and beautiful moth, called the Cecropia moth, (*Attacus Cecropia*,) which thus spends the winter in a quiet and torpid condition.

If you cut a twig on which one of these cocoons has been hung, and shake it, you will feel that it contains a heavy body which is to some extent moveable, and you can feel a slight dull thud as it falls from side to side. This winter home of the insect is about three inches long, shaped something like a pod, tapering towards each end, and invariably fastened lengthwise to the twig. It is of a dirty brown colour; the exterior is very close and papery like, although much wrinkled, and is quite impervious to wet. Let us look inside of it; underneath the close exterior we find a mass of loosely woven threads of strong yellow silk which surround the dark brown chrysalis and fill the intervening space, the upper end of the cocoon where the moth is eventually to make its escape, being much looser in texture than the other portions. The chrysalis itself, the object of all this care, is smooth, of a dull brown colour, and about one and a half inches long, and 5/8 of an inch broad in the widest portion.

Early in June—or if the cocoon is kept in a warm room, many weeks before this—a marvellously beautiful moth issues from this snug enclosure. When the time has come for its escape, the shelly structure of its prison house is rent, split open along the back, and at once restless movements begin within; the struggling creature as it tries to free itself, making a scratching noise as it tears away the silken bars which stand between it and the outer world, and this noise can be distinctly heard at some distance from the object. At this juncture a fluid is secreted from the mouth of the insect

which so softens the silk as to make the escape of the moth a comparatively easy matter, while without this wise provision it might remain in its cell and exhaust itself in fruitless efforts to get out. Presently the fore legs appear, thrust out of the upper end of the cocoon, then the head crowned with its beautiful feather-like antennæ; and very soon a heavy looking object with a large plump body and soft clumsy little wings is drawn slowly out of the orifice, and stands before you in the free air.

The first care of the moth is to place itself in such a position that its wings may hang downwards, the only favourable posture for their proper development, then a rapid process of growth or expansion begins, resulting in full maturity in about half an hour, during which time the wings enlarge from the size of an ordinary bumble bee until they measure from five to six inches across.

This magnificent creature is nicely represented in Fig. 2. Both front and hind wings are of a rich brown; the anterior pair greyish, shaded with red, while the posterior are more uniformly brown; about the middle of each of the wings there is a nearly kidney-shaped white spot, shaded more or less with red, and margined with black. A wavy dull red band crosses each of the wings, bordered within on the front wings, more or less faintly with white, while on the hind pair the band is widely and clearly margined with the same colour. The outer edges of the wings are of a pale silky brown, in which, on the anterior pair, runs an irregular black line which on the hind wings is replaced by a narrow, double broken band of the same hue. The front wings next to the shoulders are dull red with a curved white and black band, varying in distinctness in different specimens, and near their tips there is an eye-like black spot with a bluish-white crescent. The upper side of the body and the legs are dull red, with a wide band behind the head, and the hinder edges of the rings of the abdomen white; the under side of the body is also irregularly marked with white. Below, the wings are very much like the upper surface, but paler.

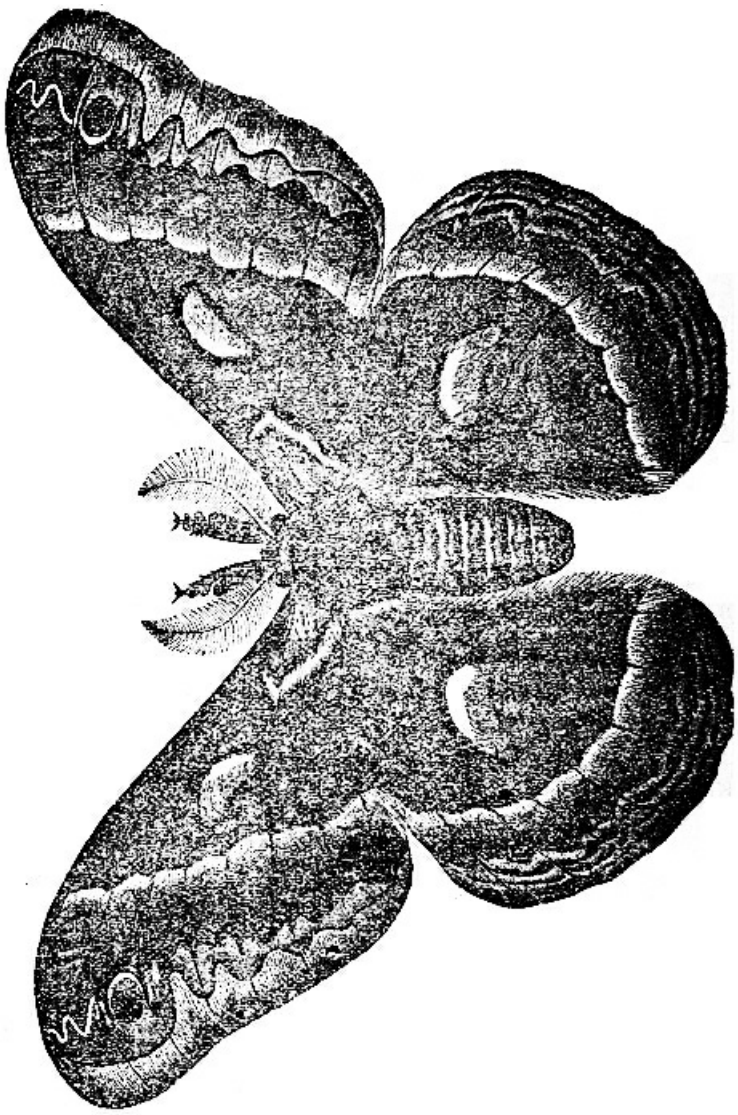

FIG. 2.

These gay creatures are nocturnal in their habits, flying like bats in the dim twilight and dusky night. After pairing, the female deposits her eggs, numbering 200 or more, a process which occupies some time, as the eggs are not laid in patches, but fastened singly with a glutinous material, usually on the under side of a leaf. The eggs are about one-tenth of an inch long, nearly round, of a dull creamy white colour, with a reddish spot near the centre. They usually hatch in about a week or ten days.

The subsequent history of this curious and beautiful insect will be given hereafter.

SHELTER.

BY REV. R. BURNET, LONDON, ONT.

Few situations are there but require shelter, either from the bleak and stormy winds of Winter, or from the bare and neglected look of a place without trees. A very little thought and planning would accomplish all that is wanted. Having matured a plan for ornamentation and shelter, the best way to carry it out is to do it piecemeal; continuous planting is much more satisfactory to the man of taste than making a rush at the work, and then leaving it very much to take care of itself. This continuous planting, too, commends itself to the pecuniary means of most people.

To a large extent the farmer and amateur gardener should be his own nurseryman. As a general rule, the trees that are most recommended and used for shelter are easily grown from seed; the requisite is to know the *how* of growing them. At Arkona, Mr. B. Gott, the orchardist, raises an erection about three feet from the ground and covers it with brush; the seeds are sown, spring up, and make a good growth even in the course of one season. Let them be transplanted in due time in some suitable spot, and all trees necessary for shelter are at hand.

Wind-breaks, either for shelter or ornamentation, are of great moment to the fruit grower, in fact almost essential. The one tree that stands out pre-eminently is the Norway spruce, (*abies excelsa*;) its hardiness, rapidity of growth, and ease of cultivation strongly recommend it; for a windy country, or where ice and snow are apt to injure the trees, the elasticity and strength of the branches render them safe from damage, Planted in rows for screens, eight feet apart is not too close.

Perhaps the Scotch and Austrian pine follow next, as the most valuable trees for shelter. Planted alternately they make a fine appearance; the former very dark in the foliage, and the latter a whitish green. They are both hardy, and afford a large amount of protection.

In Europe we have seen the Himalayan pine interspersed among other varieties with good effect.

For a hedge, nothing can equal the arbor vitæ, or white cedar; it forms a perfect wind-break and stands our Winters perfectly. The planting must be closely done, and if slightly pruned in the tips, the spray becomes intensely thick and impervious.

At our Winter meeting in Hamilton, Mr. Holton urged the planting of our common white pine—what might be called the pine of the country. It is one of the best trees for shelter, however you look at it; perfectly hardy, moderately quick in growth, acclimatized, and valuable for its timber. The same gentleman also mentioned the hardy black spruce.

In Essex, when recently there, and also in the county of Elgin, we saw the European larch planted as a wind-break; its growth is something wonderful, and the shelter perfect; although deciduous, the spray is so small and close that it cuts the wind, and makes a complete calm on the sheltered side. We might add perhaps, that this variety should be planted in the Fall.

At Tyrconnell the walnut is used for shelter, and a noble screen it makes. It is planted on Mr. Comis' grounds in triple rows. Few finer sights can be seen when in the full season of flowering and fruiting. We greatly wish that its popularity were on the increase, the more especially so, as our soil in many districts is admirably adapted for the walnut. The nuts should be planted as soon as they fall, four feet apart, and three inches deep. The first year they will make a growth of fourteen or fifteen inches, the next, three feet, and in the third year they will be of sufficient size to render cultivation unnecessary.

Many advocate the planting of the sugar maple, and the soft maple; both have their advantages, being deciduous however, they cannot compare to the many varieties of the coniferæ.

In answer to the question, when, and how to transplant evergreens, much has been, and will be said. Some say, just when the buds first begin to swell; others affirm as strongly and persistently in the latter end of May and during the month

of June. One or two requirements are absolutely necessary to insure its growth; first, see that the earth is firmly in contact with the roots. Mr. Meehan, of Philadelphia, uses beaters in planting; we are persuaded that the plan is a good one. Mulching is an essential; with proper mulching a single tree need not be lost.

Regard is also to be had to the particular district where the shelter is needed. In some of our western counties, in many parts of Essex and Kent, the white ash (*Fraxinus Americana*,) might be planted with beneficial results; the arboriculturist looking to future recompenses as well as to present benefit; its strength, elasticity, and durability making it invaluable for the manufacture of agricultural implements. The walnut, butternut, and larch are well adapted for the extreme points of the western peninsula. Norway spruce flourishes everywhere, and the same may be said of the Scotch and Austrian pine.

A cheap and effective wind-break can be formed by protecting the trees that spring up around uncultivated fences. In the neighborhood of Hamilton, several farmers have derived benefit from this means, both for their crops and fruits.

This question, however, is not unlikely shortly to assume larger proportions. The stripping of the country of its forests; the long bleak tracts, inviting the violence and injurious influence of winds, will speedily demand a remedy. Arboriculture should be allied to the other efforts put forth by the F. G. A. of Ontario; not till then will the subject meet with that attention which it so justly deserves. That all efforts to accomplish this laudable result, may meet with an able advocate in our HORTICULTURIST, and that this paper may lend a helping hand in the good work, is the aim and object of your essayist.

SCRIBNER SPITZENBERG APPLE.

A correspondent of the *Gardeners' Monthly* residing at Plattsburg, N. Y., claims that he has in this variety an apple of the peculiar flavor of the Esopus Spitzenburg, while the tree is more hardy and vigorous, and an abundant bearer. In 1859 it was exhibited at the annual meeting of the New York State Agricultural Society, and received a silver medal. The fruit is very like the Esopus Spitzenburg in form, but somewhat more angular, and in color a lighter red. This may prove to be a valuable fruit for general cultivation in Ontario, for Plattsburg lies in about the same latitude with Peterboro' and Barrie, and if hardy and productive at Plattsburg, it should do well in many of our colder sections.

APPLES IN MINNESOTA.

Seeing that the climate of the State of Minnesota is very severe upon fruit trees, our readers who live in the more trying sections of the Province will be interested to know what kinds of apples are found to answer there. At St. Paul, Minnesota, the mean temperature for the three Summer months is about the same as that of London, Ontario; while the mean temperature for the three Winter months is about that of Pembroke, in the County of Renfrew, or Three Rivers, in the Province of Quebec. Thus it will be seen that fruit trees in Minnesota are exposed to very severe cold in Winter, while the Summer heat is also quite considerable.

On looking at the transactions of the Minnesota State Horticultural Society for the last year, we notice that only two apples are recommended for general cultivation, namely, the Duchess of Oldenburg, and Wealthy. This indicates that the climate of that State must be very unfavorable to the apple tree. The Duchess of Oldenburg has been cultivated in this Province for a number of years, and has borne the severity of our Winters unharmed. The Wealthy is not as well known, indeed it is doubtful if it has been planted in many of our orchards. The Tetofsky is recommended for planting in limited quantities. The reason for this limitation does not seem to be brought out in the discussion, unless it be because one gentleman lost a number of trees of this variety in the Winter of 1873. The St. Lawrence, Utter's Red, and Snow apple or Fameuse were recommended for favorable localities; and the White Astracan and Elgin Beauty for general trial throughout the State. So far as the White Astracan has been cultivated here, it has been considered a fruit of poor quality, not to be grown where better sorts will thrive. The Wealthy is a very good, medium sized fruit, in use from December to February, which originated near St. Paul, in Minnesota, and seems to have maintained a character for extraordinary hardiness; it is worthy the attention of those who require a tree capable of enduring a very low temperature. The Elgin Beauty originated in the township of Elgin, in Wabasha county, Minnesota; it is a medium sized fruit, streaked with red on a yellow ground, moderately juicy, sub-acid, in season from November to March. The writer is not aware that it has been planted in Ontario.

A WORD OF WARNING TO PEACH GROWERS OF ONTARIO.

BY A. M. SMITH, DRUMMONDVILLE, ONTARIO.

Perhaps it is not generally known, but it is nevertheless a fact, that the disease so destructive to peach orchards called the yellows, has made its appearance in our midst. Quite a number of orchards along the frontier, particularly in the vicinity of Drummondville and Stamford, have had affected trees in them the last season, and some in the great peach growing section of Grimsby. The symptoms of this disease are, 1st, an enfeebled vitality, the foliage looks sickly; and, 2nd, the fruit ripens prematurely, sometimes two or three weeks before its usual season for maturing, it is usually high coloured, red and flecked or spotted, and is red around the stone. This occurring in young trees newly planted, has led many to think they had some new variety which was very early; but the flavor is universally insipid and watery, and the fruit nearly worthless. Hundreds of bushels of them were sold in Western New York last season, their color recommended them, but no one would care to buy them a second time. This disease, according to Downing, showed itself about the year 1800, in the vicinity of Philadelphia, where many orchards showed decay and death without any apparent cause, and it has since spread into nearly all the peach growing sections of America. That the disease is contagious there is no doubt, and it is also hereditary. Seeds from diseased trees will produce diseased nursery stock, and buds taken from them will produce disease where inserted, and the pollen from the flowers of diseased trees is also believed to carry the disease to trees that are contiguous. In these ways the disease has been spread over the country. It is therefore of great importance to those planting trees to procure them from localities that are free from this disease, and from parties who would use the utmost care in getting seeds and buds not affected with it.

Is there a remedy for the disease? It is said that when the disease shows itself in an orchard it is difficult to eradicate it, unless the trees showing the first symptoms are taken out, root and branch. In Michigan they have a law compelling people to dig them out; and I understand that there is such importance attached to this matter that vigilance committees are appointed in some localities, who visit orchards, ordering out every tree that shows any symptoms of this disease. But notwithstanding all their vigilance many of their orchards have been destroyed by it. If such extreme measures are necessary there, I should think that self-interest at least would dictate to every peach grower of Ontario to be on the alert, and remove all symptoms of it as soon as it appears. I know there are some people who laugh at the idea of the yellows being here, and attribute the sickly condition of their trees to the cold Winter of three or four years ago, and I do not doubt that the Winter referred to injured the trees in some sections, and by enfeebling them, made them much more susceptible to disease. But I saw this same disease on several trees in an orchard in Niagara Co., N. Y. the Fall before the severe Winter spoken of, (and I think some of it in Canada,) and now that orchard is totally destroyed, and several others in its immediate vicinity are badly affected with it.

Professor Beal, microscopist of the Michigan Agricultural College, has been making observations to learn if possible the cause of the disease. He has detected several forms of fungoid growth attached to the roots of the trees, and this matter has so adapted itself as to enter into the circulation of the sap of the tree. Professor Redgie, of the same college, thinks the disease may be traced to this cause, and that an enfeebled condition of the tree caused by excessive bearing while young, or other enfeebling causes, may greatly increase the liability of the attack. In the analysis of the ashes of healthy, and diseased peach trees, it has been found that diseased trees lack two important elements, potash and phosphoric acid. Now it is an established fact that these are of the first importance among inorganic elements of tree growth, and this deficiency suggests a remedy. (“An ounce of prevention is worth a pound of cure.”) Keep your trees supplied with plenty of potash in the soil, give them good cultivation, thin out the fruit and not let them exhaust themselves by over-bearing, particularly when young, and they will be less liable to an attack of this disease; and be vigilant in taking out all diseased trees when first attacked, and you may save your peach orchards.

Transcriber's Note:

Obvious printer's errors, including punctuation, have been silently corrected with the exception of those noted below.

Page 3: exerior corrected to exterior

Page 3: crysalis corrected to chrysalis

[The end of *The Canadian Horticulturist Volume 01, No. 01* edited by D. W. Beadle]