

PAGES

MISSING



.. THE CENTRAL ..
Railway and
Engineering
Club
OF CANADA



OFFICIAL PROCEEDINGS

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TORONTO, CAN., Jan. 27th, 1914

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PROCEEDINGS OF THE CENTRAL RAILWAY AND
ENGINEERING CLUB OF CANADA MEETING

COURT ROOM NO. 2, TEMPLE BUILDING,

TORONTO, January 27th, 1914.

The President, Mr. T. J. Walsh, occupied the chair.

Chairman,—

Gentlemen, we will call the meeting to order. The first order of business is the reading of the minutes of the previous meeting. As you have all had a copy of same, it will be in order for someone to move that they be adopted as read.

Moved by Mr. Jas. Wright, seconded by Mr. Geo. Baldwin, that the minutes of the previous meeting be adopted as read.

Chairman,—

Next order of business is the remarks of the president. You have elected me president of this club for the year 1914, and I hope you will not regret it when the year has elapsed. I hope and have no doubt that the members and officers will give me the same support as they have given my predecessors. If you all take hold and do your part we will no doubt have a very successful year.

If any of the members have any suggestions to make which they think will be of benefit to this organization, just come forward with them and they will be given careful consideration.

I think that while the club has been making fairly good progress, there are some things which we might have done which we have not done.

I desire to ask more of the members to come forward and take part in the discussions on the papers, and thus encourage other members; if this is done we will have some excellent discussions, which will no doubt be educating. I also may say that I do not think we are getting enough papers from the members. There should be more papers given by the members of this club and less going outside for papers.

I do not think there is anything more I can say, except to again ask the members and officers to give me their hearty

support during the coming year, and we will no doubt be able to make this a banner year.

I desire to call the attention of the members to the change of date of February meeting, which will now be held in conjunction with the Engineering Society of the University of Toronto in Convocation Hall, Toronto University, Thursday, February 5th, at 8.15 p.m., when a paper will be read, illustrated by motion pictures, on the subject,—“The Manufacture of Steel Tubing,” by Mr. F. N. Speller, metallurgical engineer, National Tube Company, Pittsburgh, Pa. This is the paper which was to have been given last November, but had to be postponed on account of our inability to secure a hall for the installation of picture machine. These motion pictures were shown at the American Railway Master Mechanics' Association Convention in Atlantic City last summer, and will no doubt be very interesting and instructive.

The Eight Annual Dinner of the club will be held in the Grand Union Hotel, Monday, February 23rd, 1914. Tickets, \$1.00, may be secured from any member of the executive or reception committees, or from the secretary-treasurer. Also may state that as far as we know at present, beginning with the meeting on March 24th, we will meet in the Grand Union Hotel.

I may say in regard to this decision, that when the executive committee were making arrangements for the Annual Dinner, being unable to get the Walker House or Prince George, we endeavored and were successful in making arrangements for holding same at the Grand Union. While speaking with Mr. Watts, the manager of the Grand Union, we found that we could secure a very nice room at the Grand Union for holding the monthly meeting, and thinking that it would be more convenient, it was decided to hold meetings there commencing with the March meeting.

I shall now call on the secretary for the list of new members.

NEW MEMBERS

Mr. Jno. Dennis, Engineer, Toronto.

Mr. C. J. Kennedy, Conveyor Inspector, Consumers' Gas Co., Toronto.

Mr. Jno. Egan, Engineer, St. David's Wine Co., Toronto.

Mr. David Moss, Fitter, Gurney Foundry Co., Toronto.

In regard to our next meeting, February 5th, I want to impress upon the members that the next meeting is a pretty important one. We changed the date from the 24th to the 5th of February, because it was the only date Mr. Speller had open. Mr. Speller has been lecturing and exhibiting these motion pictures all over United States, and when he is going

to the expense of coming here all the way from Pittsburgh, Pa., we certainly should have a good turn-out. There are going to be about two or three hundred students present at this meeting, and we want to show them the kind of a club we have. This will, I expect be one of the best papers ever given before this club. It is not only for the members to come, but bring your friends also.

Chairman,—

Any unfinished business? None.

Any new business? None.

Any reports from Special Committees? None.

MEMBERS PRESENT

Walter Fish	John Egan	J. Barker
Jas. Kelley	C. H. Stainton	A. A. Watts
C. Russell	C. G. Spencer	Fred. Glanville
W. Austin	Jas. Wright	Jos. Stains
J. E. Rawstron	G. H. Boyd	H. G. Fletcher
Jas. Herriot	N. A. Davis	John Dennis
Chas. D. Scott	F. Dickinson	John H. Stananought
J. Dewsbury	L. Salter	G. S. Browne
H. R. Hamer	Jas. Reid	A. R. Taylor
C. R. Curry	W. C. Sealy	F. R. Wickson
Geo. Godfrey	A. J. Lewkowicz	T. B. Cole
Geo. McIntosh	Geo. Baldwin	A. M. Wickens
J. W. McLintock	T. J. Walsh	F. G. Smith
W. Cowan	E. Morrison	C. Daniels
P. Brundrett	J. Collete	W. Hetherington
S. Best	A. E. Price	J. Ross
E. Churchill	A. Tugwell	E. Popham
A. W. Bell		

Chairman,—

I have much pleasure in asking our esteemed past president, Mr. Wickens, to come forward.

It is a very pleasant duty to me to present Mr. Wickens with this charm on behalf of the members of this club as a token of our appreciation of the able manner in which you have handled the office of president, during the past year, and I only hope that his successor will be as successful with the office and as well worthy of a medal as Mr. Wickens. I hope Mr. Wickens will wear this, as a remembrance of his association with the officers and members of the Central Railway and Engineering Club of Canada, as president, during the year 1913.

Mr. A. M. Wickens,—

I certainly thank the members very sincerely for this token. If I have accomplished anything for the club during the year 1913 I am glad of it. As many of you know, I have been a member of this club for a number of years, and I intend to continue as such. I am not going to cease being an active member because I have got a medal, but as a member of the executive I am going to assist the affairs of the club just as much as I am able.

I want to thank the officers for the splendid way they have rallied round me. I may say that during my term of office, I have never asked an officer or member of this club for assistance in anything but that he came right out and helped us along. The president is not the whole thing; unless he gets the support of all the officers and members he can accomplish very little. If my successor, Mr. Walsh, gets the same support I have had we will have a banner year.

In conclusion I again thank the officers and members very heartily for this medal, and for the hearty co-operation and assistance tendered me during my term of office.

Chairman,—

The next order of business is the reading of papers and the discussion thereon.

Our esteemed member and past president, Mr. Geo. Baldwin, is going to read us a paper to-night on the subject of "Horticulture." Mr. Baldwin claims to be an amateur at this business, but the members will observe from the medals and silver cup on the table, that he is a past master at this game. I shall now call upon Mr. Baldwin.

Mr. Geo. Baldwin,—

Before starting my address, I desire to take this opportunity of congratulating Mr. Walsh on his being elected to the highest office in the giving of the club. The members of the executive, including myself, received a letter from you to-day asking for our support. I can assure you, sir, and I am sure the rest of the executive will bear me out, that it was not necessary for you to do this. Of course, we appreciate that it was done merely as an act of courtesy. I feel certain that you will get the hearty co-operation and support of all the officers and members of this club.

I might say that I am the oldest member of this club; not of course referring to age. Twelve years ago we started the first Railroad club, and your humble servant was the secretary. This club was formed mostly of Foremen of the various depart-

ments of the Grand Trunk, with which I was at that time associated, We read papers on different subjects, until the subjects were about exhausted, we finally got Mr. W. Kennedy, then master mechanic of the G.T.R., interested, and he with Mr. J. C. Garden, who was then general foreman of the G.T.R. shops at Toronto, were instrumental in inaugurating this splendid organization, in January 1907. And I think we ought to recognize Mr. Garden's services by presenting him with an honorary past president's jewel; of course Mr. Kennedy has one and I am sure he is proud of it.

HORTICULTURE

By Mr. George Baldwin, General Yardmaster, Canada Foundry Company, Toronto

To the President, Officers and Members of the Central Railway and Engineering Club of Canada

Gentlemen,—

Before commencing my paper, I wish to make a few introductory remarks. In the first place, as your president has just told you, I am an amateur horticulturist, but nevertheless, I can and am producing the goods. Four years ago the superintendent of the Toronto parks, Mr. Cameron, came up to my garden—someone had told him of it, and he perhaps thought he might learn something, and I believe he did—he said to me; “Young fellow! you want to join our Horticultural Society. Next year we are giving a cup, and it becomes the property of the man who wins it for three consecutive years. Consequently we expect to have it on our hands for a long time.” Prior to this I had not been aware that there was such an organization. However, I joined the same that very night. The first year I won the cup; the second year I won it; and again the third year. Consequently it has become my property.

Last December, I was invited by the Ontario Horticultural society to give a paper before them at the Parliament Buildings. I told them:—“Gentlemen, I think you have made some mistake in asking me to give you a paper. I am only an amateur, whereas you are all professionals.” “No,” they said, “We understand from our secretary, Mr. J. Lockie-Wilson, that

you are the man who is taking all the prizes at the different exhibitions, and we want to know how you do it." So the following is the explanation I offered them.

In compliance with a request received from your executive to read a paper on Horticulture, I beg leave to tender the following.



Not a King's prizeman, nor a champion heavy-weight, but the proudest man in Ontario

As we are all of a mechanical turn of mind, this paper may at first give one the impression that I have gone from the sublime to the ridiculous, but not so, for you must remember that after a strenuous day's work at the office, shop or factory, we need a stimulus of some kind to stay the monotony and to

attract our attention in another direction, and as the cost of living nowadays is so high, the vegetable part of my paper may help us to reduce that cost.

I hope it is no egotism to state that in both the floral and vegetable departments of amateur horticulture, in which I have been engaged for the past eight years, I have been entirely successful in a prize-taking point of view, for instance, in 1912 I won one hundred and one dollars in prize money, six medals and a silver cup, and in 1913 have won about eighty dollars in money, two gold medals, one silver, and the hundred dollar silver cup for the third year in succession, consequently becomes my own property, and believe me, there is no prouder man in Ontario to-day.

You will also agree that I have to work hard, when I tell you that all my gardening operations have to be done before 7 a.m. and after 6 p.m., with an occasional Saturday afternoon and holidays.

The happiest life, in my opinion, is that which is fullest with the most agreeable occupation.

Now if gardening be considered as an amusement, as a game in which your neighbours and competitors are striving to win, it becomes truly delightful, and gives such results in return for the energy you put into it.

Any kind of gardening has become a science, full of interest and enjoyment, provided you go at it with a will, and in the right way, otherwise you meet with disappointment.

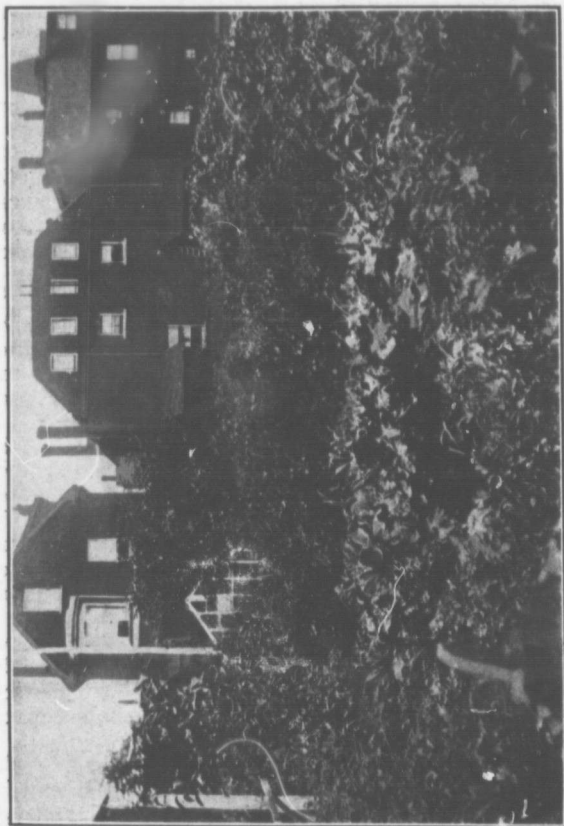
Energy is as necessary to a garden as oats and hay are necessary for a horse, if you want results.

Original wealth came from the soil, and while I do not garden from a commercial point of view, the foregoing list of prizes will convince the most sceptical that there is still wealth in the soil.

The two most important qualifications or essentials in gardening are energy and ambition which to the man is like steam to the engine or butter to bread,—with these qualifications in gardening a man never knows when he is beaten. Gardening should be regarded as I have already intimated as a game which is played from the love of it, rather than from necessity. It is infinitely the most absorbing hobby or amusement you can think of. Knowledge of it is essential to success, though there is no royal road to that knowledge, but get up early in the morning, and get busy, noting the mistakes and omissions you made this year and rectify them next year, join the Horticultural Society of your district, \$1.00 per year, and get all the information therefrom for all kinds of gardening.

The main thing is to grow well what you do grow, and that means a study of your garden, it means procuring good seed, it means learning how to fertilize, how to fight the bugs, it

means a lot more than I can tell in the short space of time allotted to me; but I am going to make a few suggestions, which may help the amateur to make the most of a back yard, similar to my own, where I put in hours and hours of pleasure. Let it be distinctly understood that you cannot be a base-ball fan or an automobile enthusiast as well as a successful gardener.



Density in the vegetable garden

In 1912, I tried to see how many varieties of vegetables it was possible to grow in my garden, and I accomplished eighty-two varieties. Here is a rough sketch or plan of the garden for that year, and I may add that I always work to a plan which I prepare in the winter time

To make a success of your garden, it is necessary to have a hot-bed or greenhouse. I prefer the latter, and built one myself twelve feet wide and fifteen feet long, and equipped it with a small hot water boiler, and three rows of $1\frac{1}{4}$ in. pipe all around, out of my prize money.

About the second week in March, after buying what seeds you require, look over your plan and see which seeds need to be started in heat, sowing some each of the following: cabbage, peppers, egg plants, tomatos, lettuce, onions, celery, melons, citrons, and whatever kinds of flowers you decide on. If you use an hot-bed, sow the seeds in rows three inches apart; if in greenhouse sow in seed pans or shallow boxes, empty cigar boxes are good, keeping them as close to glass as possible to keep the seedlings from getting spindly; use lots of seed as it is easy to thin out, press seeds in firmly, and cover thinly with soil, and keep them moist. When they have the second or third leaf, transplant into berry baskets, putting about six seedlings in each and keep them growing on until time for planting in the open.

The garden should be heavily manured and dug roughly in the fall, only digging that part of the garden again in the spring where you intend growing cabbages, cauliflower, lettuce, tomatos, egg plants, peppers, etc., and merely raking the ground over in the spring where you intend planting beets, carrots, parsnips, salsify, or other root crops.

Along about the 15th May, prepare your garden to receive the seedlings which you have raised in hot-bed, also for seeds which you sow in the open, following your plan to the letter. I find it a good method to take your rule, with a pot of white paint and brush, and make a mark every eighteen inches along your fence, as this is the usual distance for planting vegetables. Cucumbers, squash, tomatos, etc., need more space,—give them two spaces.

All planting, both seeds and plants, should be completed by May 24th or 31st at the latest, being governed of course by weather conditions, with the exception of celery and pickling onions,—June 1st is time enough for these. Be sure your plants are hardened off before planting out.

Sow the seeds of your squash, marrows, and cucumbers in hills that have been prepared three feet apart each way by digging out the hole about fifteen inches deep, putting in well rotted manure, covering over with soil to a depth of four or five inches, press your seeds in edgeways, firm down thoroughly, and scatter a few radish seeds in each hill for the squash bug to feed on.

Prepare the ground for tomatos similar to the squash, putting your plants the same distance apart, viz. three feet each way (except the ornamental varieties which do best growing

up the fences, besides giving your garden a better appearance). The best varieties for a city back garden, from my experience, are Livingston's Globe, Livingston's Coreless, Earliana, and Chalk's Early Jewel. You can economize on space and get better results by only allowing four shoots to each tomato



Showing system of training tomatoes up four stakes

plant, which should be trained up one inch square sticks, four feet six inches above the ground, at an angle of 75 degrees. You will find by adopting this system, you will have four sets of fruit ripened and one set for green tomatoes on every stick, the fruit will ripen quicker and have a better flavour, will be

smoother and larger, than if allowed to run all over your lot. Pick the fruit as fast as it ripens, to give the rest a chance to fill out. I never make a practice of spraying vegetables with water, especially tomatos, as this is usually the cause of black rot. Another enemy the tomato has, is the tomato caterpillar, a very pretty creature about three inches long, of the same shade of green as the foliage. The best way to combat this pest is to take a piece of candle or lamp, and a pair of scissors, and at about 10 or 11 o'clock at night go down into the tomato patch, and make an example of him.

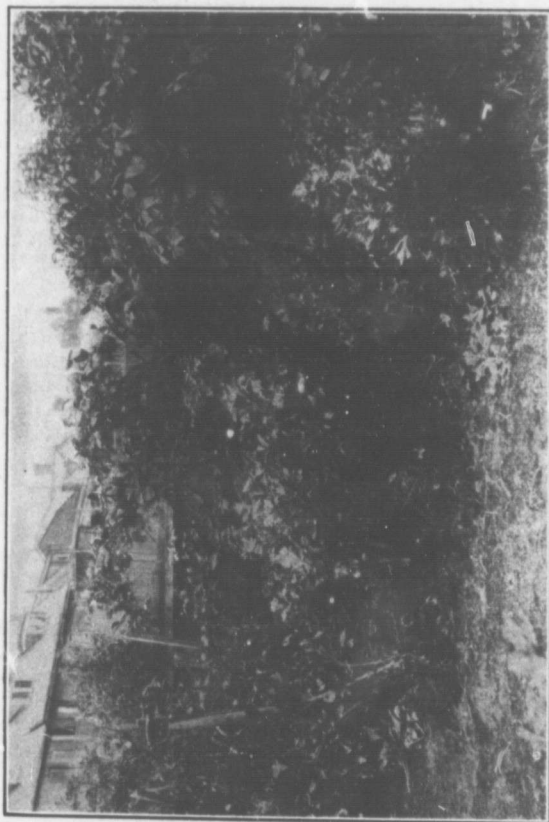
I also have a method of planting which I have found very successful, and that is, after preparing the hole, fill in with soil on the slant, from the level of the ground at one end of the hole, down to six inches on the other end, then lay your plant on this slanting bed and fill in with soil, firming it down well, tie the plant to a small stake so as to keep it in an upright position from the ground up. The object of this is to give the plant more moisture and more root, and consequently better growth above.

I do not think it needful to waste your time by explaining how to grow carrots, turnips, parsnips, beans, or peas, as they are vegetables that will grow in spite of inattention, provided they are thinned out and cultivated occasionally.

For early cabbage and cauliflower, sow seeds in hot-bed about March 15, and plant out as soon as weather permits. And for late crops, sow seeds in a warm corner of the garden. Winingstadt, Henderson's Summer and Glory are three of the best cabbages and Snowball the best cauliflower for narrow gardens between board fences. Onion seed should be sown in heat about March 10th, forced along, hardened off, and transplanted about May 10th into good rich soil, such as your last year's celery bed, planting from four to six inches apart in rows eighteen inches apart, to enable you to get between with the hoe to cultivate deeply and regularly; and if you want big onions feed once a week with strong liquid manure. When plants are in young stage, scatter some slacked lime or powdered sulphur occasionally to keep down the onion maggot. The Southport onions are the best—red, yellow and white, but have a row of Prizetaker as well.

The celery bed should be prepared in the spring in the following manner: Mark off with string the size of bed required, say for four varieties eighteen inches apart; consequently it will need to be seven feet six inches wide or five spaces on your fence, rows running north and south. Shovel the earth out to a depth of eight inches, throwing it up in a ridge on either side, fill the trench up with well rotted manure which dig in deeply, tramping over this and digging it again to ensure the manure being well incorporated with the soil; then throw three or four inches of fine soil on top; then put your plants in eight inches

apart in the rows, keeping the beds moist and constantly stirred right up to the time for bleaching. Use the ridges for growing radishes for the table. You may get two or three crops before you need the earth for bleaching. I prefer earth to boards or paper for bleaching the celery, as it gives it a sweeter and nutty flavor. For variety I have the best success with White Plume,



The Celery Bed with Raspberries in the background

Paris Golden, Rose Ribbed Paris and Evan's Triumph,—the latter two for late varieties. Have your plants good and strong before putting out, plant firmly, and giving liquid manure regularly. Leeks, to be treated precisely the same as celery; in fact, I always put them in the same bed. Garden

cucumbers should have the earth about them constantly stirred up and kept moist.

Do not forget that if you grow egg plants, you must ever be on the watch for the potato bug, as they will leave your neighbour's potato patch and eat up your egg plant in short order, if not picked off regularly and sprayed.

About June 10th, sow your seeds of pickling onions. Soil need not be rich. Sow thickly so that they will come up like grass. They will push one another out of the way.

You will notice that I have not given full cultural directions for the growing of vegetables, merely giving a few details of each, owing to space and time, but it is my intention of specializing on one vegetable and one flower and for the vegetable I shall single out the cabbage family. The cabbage is a popular and wholesome vegetable, and is not as much understood as it should be, as it constitutes one of our most valuable classes of vegetables. It is eaten in three popular forms, which vary much in respect of their wholesomeness. These forms are—the sliced raw cabbage—plain boiled cabbage—and salted cabbage or sauerkraut—the favorite dish of the Germans. In the first form raw cabbage is sliced fine, and eaten with vinegar, it is one of the lightest and most wholesome foods in existence and cannot be too highly recommended. Boiled cabbage takes longer to digest, and sauerkraut almost as much as boiled cabbage. The other forms of cabbage, such as cauliflower, brussels sprouts, kale, etc., supply the epicures of all countries with some of their greatest delicacies. Much has been written of cabbages, and yet they are strangers to many a garden. I hope that this article will suggest some idea that may prove of practical value. The first question of importance is seed, buy it of your local seedsmen as I find the native seeds do better than foreign bought. I do not recommend sowing seed for the early cabbage, as few people have the facilities for raising them and the plants can be bought reasonably, but for the late or main crops, by all means sow your own seed about the middle of May, either in a frame or in a warm corner of your garden, sow seeds thinly, half inch deep, in rows four inches apart, thin out the seedlings to four inches apart in the rows; after they have formed the second pair of leaves, you may get ready to transplant to their allotted place.

It is a well-known fact that cabbage, if properly attended to, will grow on almost any kind of soil, but the best is a rich clay loam. Clay from the cellar incorporated with mortar, brick rubbish and building material of all descriptions, which is usually found in gardens of new houses, is certainly not an ideal place for cabbages, it must be cleared at once, and some manure and sand, if possible, must be well dug in. After the seedlings are planted out eighteen inches apart in the rows, con-

stant hoeing must be resorted to, when ground is not wet, give a good soaking once a week during dry weather, removing weeds, and stirring the soil until the cabbages have spread themselves out, so that you cannot get the hoe in between them. I have already mentioned the best varieties, and will now give you a few pointers on combating the insect pests. There are two insects which infest the cabbage most, and they are the green cut worm which attacks the young plants, and the green caterpillar which comes along later when the cabbage is maturing. At the stage when the plants are just recovering from the shock of being torn from the seed-bed or box in which they were bought, growth is necessarily slow. This is when the cut-worm gets in his fine work, by gnawing the stem through or partly so, causing the plant to wilt and die. A dusting of air slacked lime mixed with equal parts of sulphur is a good remedy, dust it on and around the plant, this is also deterrent to the cabbage maggot which eats the root; this remedy is also excellent later on when the cabbage has formed its head, and the green caterpillar is beginning to hatch out from the eggs laid by the whitish yellow butterfly, a light dusting once a week will keep them in check, cauliflower requires practically the same treatment as the cabbage, both in culture and the same insects infest both; when the heart of the cauliflower is formed it should have its leaves tied up over the top with a piece of worsted or raffia, so as to give the flower that snowy whiteness. The seed of brussels sprouts should be sown where it is intended to grow the plant, as they do not take kindly to transplanting. I also strongly recommend a row of savoy cabbage, the drum-head variety being the best.

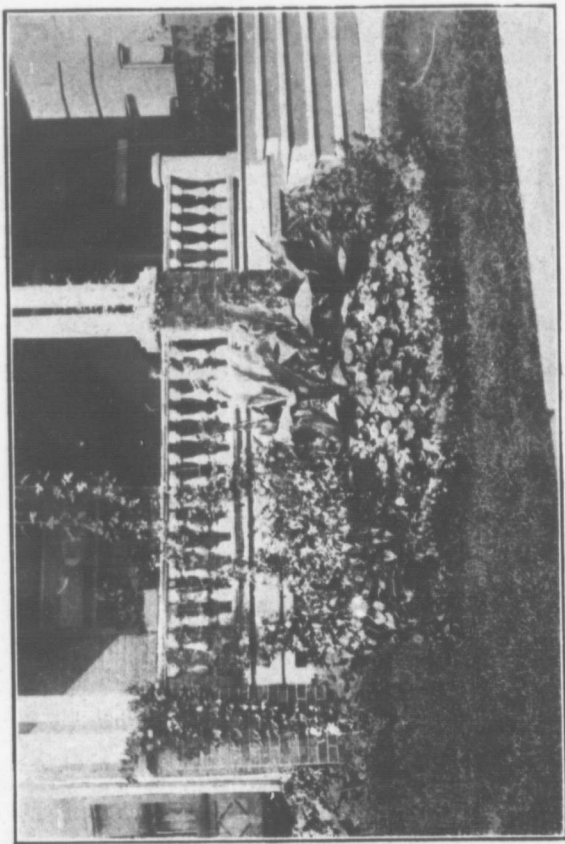
“To gild refined gold, to paint the lily,
To throw a perfume on the violet
Is wasteful, and ridiculous excess.”

KING JOHN

The floral department of horticulture is such a broad one, that a gardener scarcely knows where to begin, especially as there are so many varieties of flowers that are pleasing to the eye, and people's tastes vary.

However, I will give you my own rough idea of what to grow and how to handle the same. In the first place, no matter how small your lot, you should have a lawn at the back of the house, as well as at the front, if your house is far enough back from the street line. By all means have a small round or oval flower bed, in the centre of your front lawn, and thus help to 'Beautify Toronto' or the town or city you call home. Some will say, oh! but the children would destroy it by picking the flowers; but not so if you adopt the same method as I did on the start. I watched and waited for a few days before any

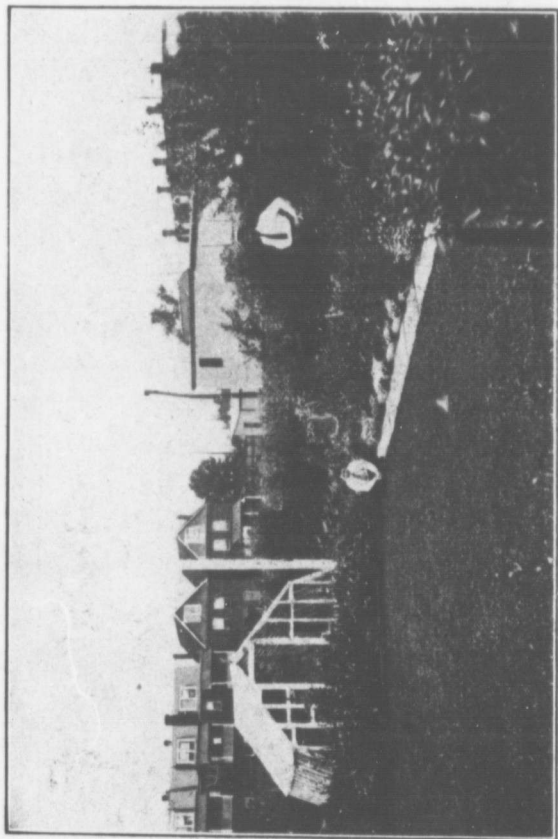
of the youngsters attempted to touch it, but finally two of them did. I rushed out and caught them, and held them while I picked a small nosegay for each, and asked them in a kindly way not to touch them again. They not only refrain from doing it themselves, but they stop others. Try it and see how well it works. I would recommend three or four Canna's in



"Beautify Toronto" by planting a flower bed in front of your house

the centre of the bed, with a row of scarlet and white geraniums all around, and for edging, alternate Sweet Alyssum and Lobelia, and you have then got a bed that will give you bloom the whole summer long. Would also suggest three roots of clematis and two climbing roses to run up the front of the verandah, or

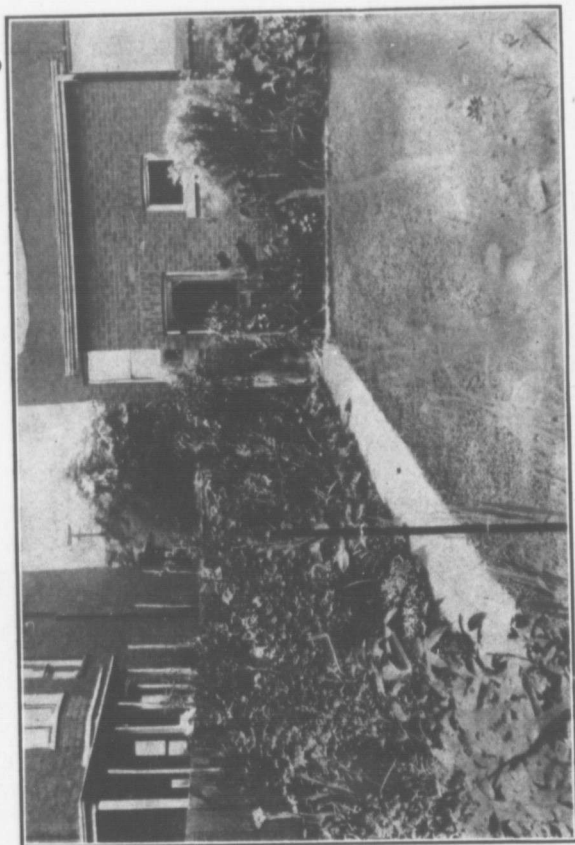
porch. This being done, turn your attention to the back flower garden, and arrange to have a border five feet wide all around your lawn for flowers and shrubs only, planting a shrub in each corner, such as a Tamarisc, Spiraea Van Houtteii, Lilac and a Philadelphus or a Deutzia Lemoine. Then every six feet around the bed, put in rose bushes, the Hybrid Perpetual varie-



View showing the home-made greenhouse, and a well kept lawn, with 5 foot flower border all round

ties for preference, as they stand our winters better than the Hybrid Teas. Then in between the roses, plant alternately a Delphinium (Larkspur), and then a Perennial Phlox. Plant all the foregoing in the centre of your five foot border, and for a background plant Hollyhocks, Helianthus and Rudbeckias

(Golden Glow family). Then in front of the roses and phlox, plant a few clumps each of *Iris Germanica*, Dwarf *Rudbeckias*, Lilies, *Physostegia* pink and white, *Statice*, Oriental Poppies, *Gypsophilla* (Baby's breath), *Platycodon*, *Sedum*, and half a dozen *Paeonies* in variety. All of the above are what we call Herbaceous Perennials, and which I strongly recommend, be-



Another view of back lawn with 5 foot flower border all round

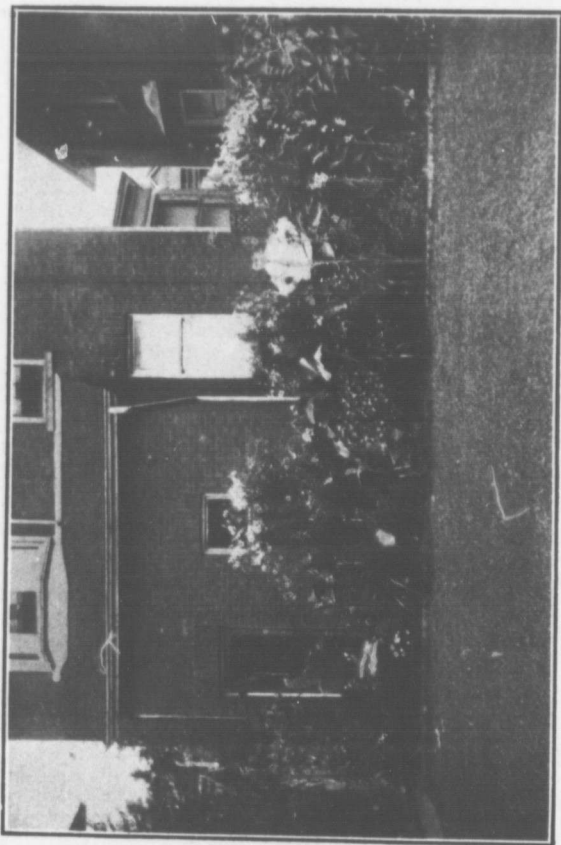
cause they come up every year, consequently less trouble and expense. For varieties I will give you the benefit of my experience:—

Roses.—General Jacqueminot, Gladys Harkness, Madame Isaac Perrier, La France, Earl Dufferin, Mrs. R. G. Sharman

Crawford, Frau Karl Druschki; and for Teas, Killarney, Mamman Cochet and Dean Hole.

Delphiniums.—Musea, Persimmon, Duke of Connaught, King of Delphiniums, Candidat, and La Martin.

Phlox Perennial.—Coquelicot, Eclairer, Selma, Antonin Mercie, Etna, Tapis Blanc, and Wm. Robinson.



One of the 5 foot flower borders planted with "Wares" stock

Hellianthus.—Mollis, Miss Wilmot, Miss Mellish, Rigidus, Orgyalis and Daniel Dewar.

Hollyhocks.—Would recommend that you buy the plants of the double variety in colours, as they do not bloom the first year from seed.

Rudbeckia.—Golden Glow and Fulgida, for fall varieties, and Newmanii (Black-Eyed Susan), Sub-Tomentosa and Echinacea Purpurea, for Dwarfs.

Iris Germanica.—Gracchus, Pallida, Dalmatica, Sir Walter Scott, Black Prince, Maori King, and Madame Chereau.

Statice.—Limonium, Latifolia, Gmelini, and Tartarica.

Lilies.—Tenuifolium, Candidum, Speciosum Rubrum, Tigrinum, and Croceum. And if you want to go in for the more expensive varieties: Auratum rubro-vitatum, Auratum Platyphyllum, and the beautiful Henryi.

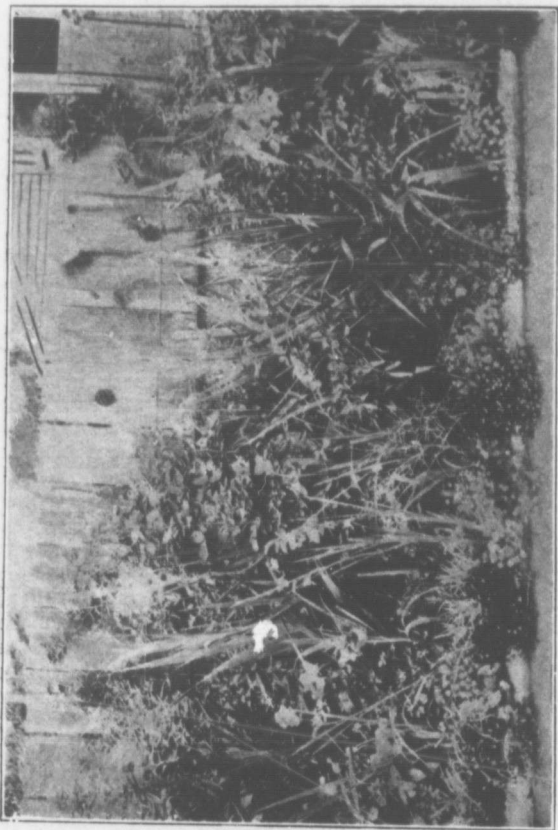
Paeonies.—Marie Lemoine, Charlemagne, Festiva Maxima, Lady Bramwell, Madame Calot, and Humeii.

Now these perennial borders will require practically no attention for four years beyond cultivating occasionally, picking off dead leaves, watering in the evenings, and picking off the flowers as fast as they mature to give the rest a chance. At the end of four years, the borders will have grown so full that the roots will need to be taken up, parted and replanted, and you will then have plenty to give away to your neighbours and friends, or exchange for some varieties you have not got.

You will notice that I have not mentioned any of what we call Hardy Annuals, of which there are some beautiful varieties. And your flower borders being sufficiently large enough to admit of your interspersing in between the perennials, plant a few each of the following, asters:—red, white, pink and blue, Zinnias, Marigolds (French and African), Stocks (ten week), Scabious, Calliopsis Nicotiana Affinis, Centaurea, Annual Larkspur, Petunias, double and single, Salpiglossis, Pinks and Mignonette. All of these can be bought in small or large quantities from one of our esteemed members, Mr. Mills, of Ossington Avenue, who has as fine a collection as can be seen anywhere in the spring, all ready to plant out. You will also notice that I have not mentioned sweet peas and dahlias; simply because, to my mind, they are too capricious, and although when grown to perfection, they are beautiful, still if they do not happen to make good, you have wasted a lot of valuable space, and we amateurs cannot afford to do this.

Now the next thing to consider is the bulbs, and I shall strongly recommend that you plant out in the spring four or five dozen gladioli, scattered in amongst the perennials, will give your garden a capital effect during July, August and September. Plant them about five inches deep. But remember these bulbs or corms must be taken up again in the fall after blooming, dried, put away in a cool place in the cellar, as they will not stand our severe winter in the ground. In the fall, about October, plant out three or four dozen Darwin tulips (mixed), same quantity of narcissus, especially the Emperor and Empress varieties, as well as a sprinkling of cottage tulips, hyacinths,

snowdrops and crocuses. All of these may be left in the ground, provided you plant them deep enough (say six or seven inches) so as not to interfere with your cultivating the perennial border in the spring. My favorite flowers are the rose, lily, asters and salpiglossis; my favorite vegetables are beets, celery,



Density in the flower border—every plant a specimen and every flower a gem

and potatoes; and the two shrubs I prefer are *Tamarisc Indica* and *Spiraea Van Houttei*.

The flower that I purpose specializing on shall be "The Lily." The writing of an article on the lily is an undertaking that even the most experienced growers approach with feelings of diffidence, knowing as they do that no person can know all

about them, and their behaviour in cultivation under the varied conditions of climate that inevitably occur, especially in the rigid climate of Canada, "The Lady of the Snows," and I suppose this is the reason that we do not see more articles on the lily in our horticultural papers, and there is not one of us but would greet with pleasure more information and data on one of the loveliest of all flowers, the lily, though an ideal never to be realized is that no garden in any part of the world, where all kinds of lilies will thrive to perfection, still there are several varieties which do well in our Canadian gardens, consequently should be more grown than they are, and thus encourage and stimulate us in our attempts to overcome the difficulties, and attain results which, all of us who have experience among lilies know, will repay any amount of patient care.

Next to the rose, the lily is my favorite flower, and this shall be my apology for giving this article, which I do with the feeling that I have no right in assuming to dictate to others on a subject upon which I feel that I am only a student under probation with seven years' experience at the most. I have found, and I presume others have also, that the disappointments far outweigh the successes in lily culture, but still if we continue to persevere we shall eventually get quite a number of varieties that are suitable to our climate and soil conditions. I make a practice of trying out one new variety every year, starting off the first year with the four hardy varieties known to most of us, and which have stayed with me ever since, and are the beautiful *L. Candidum*, *L. Tigrinum*, *L. Tigrinum Splendens* and *L. Croceum*, the latter being the real Orange Lily. I have since tried the splendid little *L. Tenuifolium* which is a dandy. My experience with *L. Auratum* is that they will only last about three years, but then they are such delightful species that one is well repaid, even if he has to renew every three years.

Two years ago I imported from Thos. S. Ware a dozen of the very attractive *L. Henryii*, a beautiful shade of orange yellow, and they have done remarkably well with me so far. I exhibited some last fall at both the Toronto Horticultural and Canadian National Exhibitions, and secured a first prize in both instances, especially those which I exhibited at the Toronto Horticultural Society were greatly admired. I am patiently waiting to see what they will do for me this year. Last fall I received a dozen each of the *L. Auratum Rubro-Vitatum* and *L. Auratum Platyphyllum*, and I am told that with proper care they should do well. Out of nineteen varieties which I have tried, I can strongly recommend the following: *L. Tenuifolium*, a very small variety 18 inches high, a bright scarlet, and the earliest lily to bloom with me. The next is the medium small *L. Wallaceii*, has an erect flower, orange scarlet maroon spots. Then the grand old *L. Candidum* or

Madonna Lily, which is regarded by most lily lovers as the most beautiful, being one of the oldest, and so common it is known to everyone. Important advice to all who attempt to grow this lily is to leave it alone, when once established, as it much resents disturbance at the roots, the purest whiteness of the flowers, is intensified by the yellow anthers, while the delicious fragrance is not equalled by any other lily. My next choice is *L. Speciosum Rubrum*, a beautiful white shaded rose with crimson spots, following this comes the *L. Tigrinum*s, a variety which will grow under almost all conditions. I saw some last summer, and the proud owner explained to me that they were thirty years old, they certainly looked exquisite in between two clumps of pale blue *Delphinium*s. Next is the *L. Croceum* or Orange Lily, the flowers of which have a natural tendency to stand erect, orange in color with black blotches. And lastly the *L. Henryii* which is amongst the finest of lilies; it is vigorous in growth and apparently not too particular in its requirements, and blooms the first season. It was originally known as the Yellow *Speciosum*, it reached a height of 6 feet with me, and I am told that in Kew Gardens in England it grows equally as tall as *L. Giganteum* to 12 feet, the flower is a deep orange which is intensified by the unusually rich green of the foliage, it needs slight shading, as flowers are apt to bleach out in full sun.

I have given all my lilies practically the same treatment, they are planted in a rich sandy loam soil, and lilies, like roses, do not like wet feet, consequently I put in a 3 inch drain tile the full length of my garden, right in front of the lilies and roses, about 12 inches deep. I plant lilies the same as I would May flowering bulbs, according to size, from 10 inches deep to none less than 6 inches. If it is not convenient to put in drain tile, dig the holes 12 or 14 inches deep, putting in 3 or 4 inches of sharp building sand, and after placing the bulb, sprinkle more sand mixed with sandy loam, on and around it, do not let manure come in contact with it, but at flowering time you may use liquid manure, weaker and less of it than you would for roses.

Lilies are practically immune from insect pests, but are attacked more or less with a fungoid disease, such cases for example in which a lily dies away suddenly without apparent cause, the leaves droop, turn yellow, and drop together with the flower buds. Plants so affected, if examined, may have the bulbs apparently sound, and this fact renders the malady the more unexplainable. I am of the opinion that this fungus disease is the result of the weakening of the constitution of the lily by our severe winters, or an over stimulation by manuring, it is most prevalent with the *Auratum*s. I do not know of a cure, but I have found that a good method of prevention is by

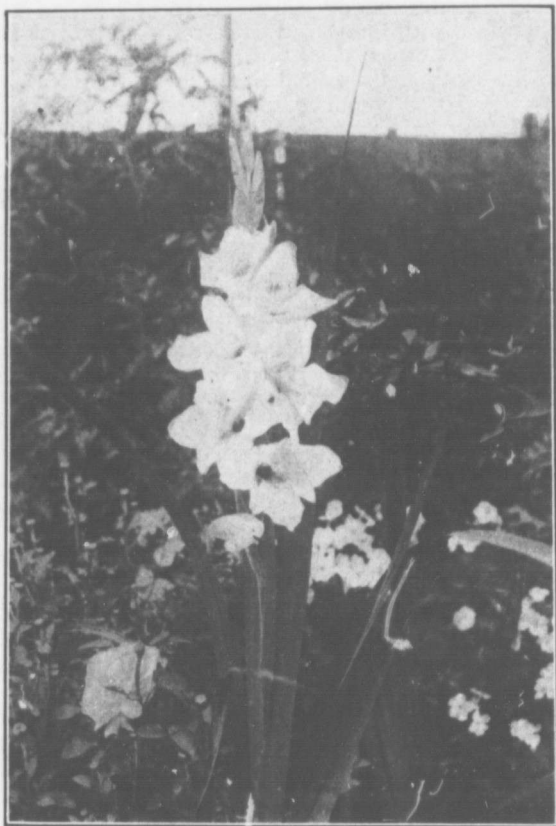
sprinkling sulphur thickly on the bulbs before planting and then again when the foliage begins to show. Another danger towards weakening the bulb is the tendency, when cutting blooms for the vase or for exhibition purposes, to cut the stem too low down, which prevents the proper maturing of the bulb for next year, this also applies to Gladioli, Darwin Tulips, etc.

This being a Railroad club, we naturally want to know what is being done, and what could be done by Railroads along the lines of beautifying their station yards. Of course Horticulture around a terminus is practically out of the question; in most large towns the only thing that can be done would be to have window boxes filled with flowers in summer time, in station windows and switch cabins, where the interlocking system is in vogue, with an occasional bed here and there, and a few clusters of hardy shrubs, where the space is not required for a siding or cross-over. Getting farther out into the suburbs and country stations, the travellers spirits are brightened up considerably by the good appearance which a few flower beds, well kept lawns and window boxes give to a wayside station, especially so if the traveller is a lover of flowers, and has a long monotonous journey ahead of him. Most all of our Canadian railroads are beginning to do something in this direction, some roads more than others. One thing they have to contend with is the apathy of the station agent. You can easily tell if an agent is fond of the beautiful by taking a glance at the surroundings of his station. It is admitted that some haven't as much time to attend to these duties as others, but I think if the companies would give a little more encouragement, we would have better results. I am well aware that with the mileage of the G.T.R. and C.P.R. it means a big outlay in time and money, and the question arises do they distribute the right kind of seeds, plants and bulbs, and are proper instructions given to the station agent (by way of a circular) for the care and maintainence.

In the first place, a few packages of Annual flower seeds and a few bulbs are handed out, and while they look exceedingly well and enhance the appearance wonderfully, the same thing has got to be done over again next year, whereas if the company could see their way clear to providing a few clumps of Herbacious Perennials and more May blooming or Darwin Tulips, for each of the stations along the line, adding a few more each year, taking into consideration of course the different climates to be contended with, and planting only those suitable to the districts, at the end of three years these Herbacious Perennial roots would be large enough, and would be required to be parted for further distribution along the line; by doing this the company would save money in the long run, and it would have a more lasting effect.

It could be managed similar to the way our Toronto parks

and gardens are handled by having a distributing station where seeds could be raised and seedlings forwarded to where required. Almost all towns are adopting this system through their Horticultural Societies, by beautifying hospital grounds, and other spots which would otherwise be eyesores.



Gladioli, known as "Peace"

You will naturally ask me where do I get all my good varieties of seeds, bulbs, plants and roses, and I may say that I have had such splendid success with Messrs. Thos. S. Ware, Ltd., Nurserymen, etc., Feltham, Middlesex, England, that I feel duty bound to recommend them to you, and should you

feel inclined to try them, you can do so, directly with them, or through me, adding your orders to mine, as I get a large consignment every spring and fall.

A few general remarks in conclusion. Constant vigilance is truly the price of success in the growing of garden crops. What with worms, bugs, and all manner of flying and creeping things, plus blight, mildew and rust, the path of the garden maker is edged with thorns as well as roses. However, let me hasten to tell the beginner, that rarely do all these things come at the same time, and some not at all in many gardens. The best way to ensure immunity from garden pests, is to grow strong, vigorous plants, use good seed, keep the soil well enriched, and constantly cultivated. The best time for watering is in the evening, but above all do not sprinkle the foliage in the hot sun, as that causes brown spot, and blisters. I am a firm believer in nitrate of soda in liquid form, a handful to a pail of water, in the early part of the season, also during very dry spells. The main points to be regarded in transplanting, are handling the plant carefully, planting firmly and shading to prevent the sun from scorching and withering. It should be borne in mind that it is not Nature's design that a plant should be transplanted, and we ought to show sympathy for a plant, as well as for our fellow creatures.

And now having taken a walk through the garden, all I have further to say is, may you have a successful season next year, and may you be favoured with seasonable rain and sunshine, for be it remembered that without the co-operation of the elements, all our efforts are in vain.

I thank you for your kind attention.

I mentioned in the early part of my paper that the vegetable side of the question might assist you to reduce the high cost of living. I think there is no doubt that you can save quite a bit of money by growing your own vegetables. I was speaking to a friend of mine the other day who told me that in Detroit all the vacant lots which were not required for immediate building purposes are fenced off, plowed, planted and handed over to some workmen who are in need of it, and who will take good care and get good use of same by growing vegetables, etc. As an instance of what could be grown on a vacant lot: I bought a lot myself up in Earls court, 36 feet wide and 132 feet long. I grew the following vegetables in this garden in one year:—

- 15 Bags of Potatoes.
- 12 Vegetable Marrows.
- 12 Squash.
- $\frac{1}{4}$ Bushel Cucumbers.
- $2\frac{1}{2}$ Bushels Tomatoes.
- 2 Rows of Carrots
- 2 Rows of Beets.

- 1 Row of Parsnips.
- 2 Rows Beans.
- 8 Rows Cabbage between the Potatoes.
- 1 Row of Turnips and
- 16 Hills of Corn.

This certainly looks as though it pays irrespective of my having to pay taxes.

Mr. Jas. Wright,—

In regard to Mr. Baldwin's reference to our esteemed member Mr. Mills. I might say that if any gentleman goes to Mr. Mills for plants, etc., he may be certain that he will get what he asks for. If Mr. Mills has not got it he will tell you so.

Mr. Baldwin,—

If there are any questions which I can answer I shall be pleased to do so.

Mr. H. G. Fletcher,—

Will you kindly tell us something of the moon flower?

Mr. Baldwin,—

The moon flower is a native of the Southern States and is similar to our morning glory, only that it comes in bloom at night and is a larger and more velvety flower, it makes a good climber for a verandah, but seeds must be started in heat very early.

Mr. T. B. Cole,—

I hardly know how to express myself, I feel so enthusiastic over Mr. Baldwin's address. I have heard quite a few lectures on Horticulture, but this certainly is the best I have had the pleasure of listening to.

I think Mr. Baldwin ought to have this printed in pamphlet form, and sold; although I don't suppose Mr. Baldwin wishes to make money out of it, but the public would benefit by it.

Mr. T. J. Walsh,—

I think the members present will understand why the Ontario Horticultural Society asked Mr. Baldwin to give a paper before them. Mr. Baldwin certainly understands Horticulture, or he would not be able to show us so many prizes.

No doubt there are a number of points in Mr. Baldwin's

address which you will not remember, but when you get the book of proceedings it will no doubt be of great assistance to you when you prepare your garden next spring.

Has anyone any further questions to ask?

Mr. G. Baldwin,—

There are several gentlemen present who got some roses and other flowers through me and they might tell us what results they had.

Mr. C. L. Worth,—

I am not a horticulturist. Might say, however, that I got half a dozen rose bushes from Mr. Baldwin and I beat him out. I plucked a nice full grown rose about December 5th last. This goes to show the line of goods Mr. Baldwin is handing out.

Mr. C. G. Spencer,—

Could you give me any remedy for a black louse or grub that comes on Nasturtiums or red louse that comes on Golden Glow and a green louse on sweet peas?

I am glad to hear you say that sweet peas are a poor investment, as I have tried them and worked very hard to make them thrive, but have never had much success. It seems to me that in the case of Nasturtiums and Golden Glow we ought to be able to take care of pests.

Mr. G. Baldwin,—

For the red aphid that comes on Golden Glow you want to spray them with nicotine about twice. For the Nasturtiums use the same only in a weaker state, as these are a sappier kind of a plant to what the Rudbeckia is. Consequently you would not need to apply same as strongly. If you find that nicotine does not rid you of these pests, you can get some Bordeaux mixture either in liquid or in powder form.

I find that with nicotine, slacked lime and sulphur you can combat almost any insect that attacks your garden.

Mr. C. L. Worth,—

What about whale oil soap?

Mr Baldwin,—

It is very good but more trouble to get ready for application. Nicotine is sold ready to use.

Mr. A. J. Lewkowicz,—

I have had pleasure of seeing Mr. Baldwin's garden and there certainly is no more beautiful place in the city.

I have listened with great interest to Mr. Baldwin's paper, and would move that a very hearty vote of thanks be tendered Mr. Baldwin by the members of this club for the excellent paper which he has read this evening. Seconded by Mr T. B. Cole. Carried.

Mr. G. Baldwin,—

Mr. President,—I want to thank yourself, the officers and members for the hearty vote of thanks you have tendered to me. I shall be only too pleased to welcome any of the members of this club to my garden at any time, this year either in the spring, summer or fall, 738 Dovercourt Road.

I will warrant you any time you come it will be worth your while. You may be able to give me some pointers, etc., and I may be able to teach you something. I am always learning something from other people's gardens. Even in the humblest garden in this city you will find that there is something which is growing to better advantage than in yours.

You can come any time in the evenings, Saturday afternoons or holidays, but before 6 a.m. and after 6 p.m. on week days.

Chairman,—

The hour is getting late, and in future I think it would be well if the members would get down a little earlier, and in doing so it would give us more time to discuss the papers.

Don't forget the meeting on the 5th of February in Convocation Hall, Toronto University, 8.15 p.m.

I want you to come and bring your friends, whether they are members or not.

The meeting adjourned at 10.45 p.m.



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