

51675/14016

During September We Will Accept Four NEW Full-Year Subscriptions for \$1.00



The Canadian Horticulturist



SEPTEMBER, 1906

Volume 29, No. 9

TORONTO

Price 50 Cents a Year



My venture to get the paper

Bethune Dr
Canadian Etomologist
x

September Apples in a British Columbia Orchard

THE ONLY HORTICULTURAL PUBLICATION IN CANADA

Issued Each Month



How Some People Get Rich

Have you ever stopped to think how much money other folks have, and how very easily they got it? Thousands of people are called "lucky" because they have big incomes. Do you know how they got rich? Pick any of these "lucky men" and in each case you will find that some years ago they learned how to make a little money do a whole lot of work, and now they are enjoying the results. The "lucky people" who have plenty of money, have found how to make their money work for them; how to make their money make more money, and keep on making more money all the time. Why don't you do the same? There is no use expecting to get rich on placing your savings in a bank, where every dollar brings you three cents every year. Or lending money on a mortgage even at 6 and 7 per cent. per annum. Have you never stopped to think that you could, with the money you have, build up your capital in a very short time, so that you will be a rich man, and consequently a "lucky man"? Will you let us tell you how to do it? Will you let us give you some good advice—advice that you don't have to take unless you are satisfied that it is good advice.

WE HAVE A CIRCULAR ENTITLED A FINANCIAL OPPORTUNITY

Which tells all about our proposition. Get a copy of it. We want you to send us your name and address on a postal card, so that we may send you our proposition, showing you where you can invest \$5.00 or \$1,000 and make your investment worth four times as much in a year's time. Our business is to raise pure-bred poultry and collie dogs. We have the largest plant of its kind in the world. We are making money, but we want to make more money. We are anxious to increase our plant so as to take care of the increasing orders coming in all the time, and to increase the plant we have to increase the cash capital by selling some of our treasury shares. If you send us your name on a postal card we will send you free of charge our illustrated catalogue, explaining all about our method of doing business, showing our plant, and also our proposition. It won't cost you one cent in any shape or form, except the postal card sent, and we are positive that we have a proposition that is worth your consideration. Don't delay. Write to-day. Better sit down and send us your name and address. Our proposition will interest you, because it will be an opportunity to put your few dollars in a business which will earn enough year after year to make you richer and richer. We know that you are desirous of placing your money in a sound, safe and profitable institution, where it will earn good honest dividends. That is why we know that, if you just write us, you will easily understand what we have to offer. We know that you will accept our offer. Address your letters to

The Golden Kennels & Poultry Co.
Chatham, Ontario, Canada *Limited*

"POULTRY AND DOGS," such is the name of a poultry review published by our President and Manager. A sample copy will be sent to your address free if you send us your address.

OPINIONS OF LEADING FRUIT GROWERS ABOUT
THE LITTLE GIANT SPRAYER

THE PERKINS & PAINE MFG. CO.,
Port Dover, Ont.

WINONA, July 18, 1905

Dear Sirs:

I have used your Little Giant Sprayer this season on nursery stock; one man can cover twelve acres in one day taking four rows at a time. It has worked without any hitches, which cannot be said of other sprayers I have tried, though no doubt experience will remedy the defects in other machines. This machine of yours is built strong, and is to look at very heavy for one horse, but in actual operation I find one horse under all ordinary conditions to operate it quite satisfactorily. I prefer a machine like yours, made to stand, to a lighter machine continually breaking something. I like your machine for another reason; it is Canadian invented and Canadian made, and I am particularly delighted on that account that it is a success. I have no fault to find with it, which is an unusual thing with a new machine.

I can safely and honestly recommend it to anyone wanting a strong, durable power sprayer, and every one having a large orchard should have a power sprayer, and why not horse power? It costs nothing; the horse that pulls the machine provides the power free.

Wishing you every success, I am,

Yours truly, E. D. SMITH.

MESSRS. PERKINS & PAINE MFG. CO.,
Port Dover, Ont.

WINONA, July 14, 1905

Dear Sirs:

The Little Giant Sprayer which I have used this season in my vineyards and orchards has given complete satisfaction, and I have much pleasure in recommending it to any one wishing a power sprayer.

Yours truly, J. J. FORAN.

Dear Sirs:

The Little Giant Sprayer I purchased from you last Spring has far exceeded my expectation, of which I am well pleased.

WINONA, July 18, 1905

Yours respectfully, J. E. HENRY.

MESSRS. LITTLE GIANT SPRAYER MFG. CO.,
Toronto, Ont.

GRIMSBY, May 15, 1906

Gentlemen:

I have used your spray machine, and have sprayed over 70 acres without a hitch or a break, and I feel sure that it is the best machine on the market. Wishing you success, I remain,

Yours respectfully, GEO. D. OLMSTEAD,
Manager for D. J. Mackinnon & Sons, Grimsby.

TO WHOM IT MAY CONCERN:—We will donate \$500.00 to any established charity upon application if we fail to furnish the originals of the letters given above.

LITTLE GIANT SPRAYER MFG. CO.

Per OTTO G. PALM, Manager.



Special nursery style LITTLE GIANT SPRAYER at work on
E. D. Smith's Nurseries, Winona, Ont.



NEW 1907 MODEL

With Special Auxiliary Air Pump

Will spray four large trees while standing. See our exhibit at entrance New Process Building, National Exhibition, Toronto, Can.

SIMPLEST—CHEAPEST—BEST

Operated by Compressed Air
Power from Wheel

Write for Prices and Circulars to

—The—
**LITTLE GIANT
SPRAYER MFG. COMPANY**

41 COLBORNE STREET

PHONE MAIN 3112 TORONTO, ONT.

FACTORY:—PORT DOVER

Gerhard Heintzman
Art Pianos

Louis XV Case

THE ARTISTIC PIANO OF CANADA IS THE
"GERHARD HEINTZMAN"
New Catalogue mailed free on application
GERHARD HEINTZMAN, Limited
97 Yonge Street, Toronto 127 King St. East, Hamilton

ART. DEPT. CANADIAN MAGAZINE

Mention The Canadian Horticulturist when writing.

Allan Lines of Royal Mail Steamships

WEEKLY SAILINGS FROM MONTREAL.

SPECIAL NOTICE TO APPLE EXPORTERS

LIVERPOOL

FOUR of the Finest and Fastest passenger steamers on the MONTREAL ROUTE TO LIVERPOOL deliver apples on the NINTH day after leaving the port of Montreal.

SAILING EVERY FRIDAY

GLASGOW

FIVE Passenger Steamers in the GLASGOW SERVICE, unsurpassed for the carriage of FRUIT, sailing direct and giving Monday deliveries in Glasgow.

SAILING EVERY THURSDAY

LONDON

SIX Steamers in the LONDON SERVICE equipped throughout with all MODERN MACHINERY for the safe carriage of PERISHABLES.

APPLES landed at Greenland Dock, Surrey Commercial, the nearest to APPLE MARKETS

SAILING EVERY SATURDAY

FOR FURTHER INFORMATION APPLY TO

H. & A. ALLAN, Montreal.

TORONTO OFFICE: 77 Yonge St.

THE PHOTO-ENGRAVERS
LIMITED.



DESIGNERS ENGRAVERS
ILLUSTRATORS AND ETCHERS

10 JOHNSTON LANE

TORONTO PHONE MAIN 5251 ONTARIO

Mention The Canadian Horticulturist when writing

**Special Glass For
Greenhouses**

GOOD QUALITY, FLAT, EVEN
THICKNESS AND WELL CUT

Plate, Mirror Plate, Wire
Glass, Prismatic Glass

AND ALL OTHER KINDS OF GLASS
USED FOR BUILDING PURPOSES

Pilkington Bros., Limited

MONTREAL WINNIPEG VANCOUVER

TORONTO

Mention The Canadian Horticulturist when writing

**Grow Asparagus
For Market**

Asparagus is a profitable vegetable to grow for market. It requires but little care when once established and finds a ready sale as it's one of the first outdoor vegetables to mature. Why not start an asparagus bed this Fall? We have extra early kinds and extra large kinds. Our roots are very popular. We book orders for 100 plants or 20,000 and quote prices accordingly. We are sure we can please you as we are the largest asparagus growers in Canada. Write us for information regarding Asparagus.

Brown Brothers Company
NURSERYMEN, LIMITED

Brown's Nurseries — Ontario, Canada

Mention The Canadian Horticulturist when writing

**Export
Your
Apples**

Woodall & Company
Liverpool, England
The Pioneer Receivers from
this Continent.

Boyd, Barrow & Co.
Glasgow, Scotland

M. Isaacs & Sons, Ltd.
London, England

and Firms in Bristol, Manchester and Hull.

ONLY THE BEST HOUSES REPRESENTED

Reliable information. Returns day of sale.

Crop and cable market reports free.

EBEN JAMES

CANADIAN AGENT

Phone M. 5735 103 Union Station, Toronto

Mention The Canadian Horticulturist when writing

YE OLDE FIRME OF HEINTZMAN & COMPANY, TORONTO

PIANO BARGAINS FOR EXHIBITION VISITORS

A visit to our handsome warerooms is always worth the time, and especially so just now with the range of piano bargains put out specially with the thought of Exhibition callers

STODDARD, NEW YORK—Square Piano, octagon legs, 6½ octaves; a good practice piano, and can be exchanged later at same price on a more expensive piano. \$65

STEPHENSON, KINGSTON—7½ octaves, carved legs, square piano, with 4 round corners, top moulding and serpentine base. This is an A1 instrument, and is excellent value at. \$119

CHICKERING, BOSTON—Carved legs, square piano, Louis XV case, 7 octaves and handsome top mouldings, in elegant condition. Regular price \$450, special at. \$125

HEINTZMAN & CO., TORONTO—Carved legs, square rosewood case, in excellent condition, overstrung scale, 7 octaves; one of our own well-known make, and will give excellent satisfaction at. \$140

HOFFMAN CABINET GRAND—Upright, with beautiful walnut case, nicely etched panels, 7½ octaves, in elegant condition. This piano will give good satisfaction and is first-class value at. \$195

FANNON UPRIGHT PIANO—Plum-colored case, 7½ octaves, Cabinet Grand, nicely paneled case, handsome trusses, A1 value at. \$205

STANDARD, TORONTO—Cabinet Grand, in walnut case, with continuous music rack, 7½ octaves, 3 pedals, nicely decorated top door, Boston fall; in first-class condition, fully guaranteed. An A1 value at. \$225

MCMILLAN & CO., KINGSTON—Beautiful walnut case, double rims, 7½ octaves, beautifully

decorated top door, rocoa effect, Boston fall, full length rack, 3 pedals, handsome trusses; an instrument that will give good satisfaction and A1 value at. \$265

WORMWITH & CO., KINGSTON—Beautiful walnut case, Cabinet Grand, with nicely decorated top door, full length music rack, Boston fall, 3 pedals, orchestral attachment, susceptible of mandolin, banjo and harp effects, etc. This piano, while slightly used, cannot be told from brand new, and is an excellent bargain at. \$269

J. & C. FISHER, NEW YORK—Magnificent Cabinet Grand, in fine Circassian walnut case, handsome carved panels, 7½ octaves, full-sized Cabinet Grand. This piano is manufactured by one of the most noted piano manufacturers in United States and is an A1 instrument in every way. Regular price \$600, and a special bargain at. \$270

HEINTZMAN & CO.—Cabinet Grand, ebonized case, 7½ octaves, 3 pedals, hand-carved panels in top door, swing music rack. This instrument is in A1 condition, and is one of our own make and fully guaranteed. Regular price \$475, special at. \$275

WEBER, NEW YORK—Walnut case, Cabinet Grand. This is a beautiful instrument in every way, and is made by one of the best known manufacturers in the United States, has hand-carved panels, 2 music racks, 7½ octaves, 3 pedals; is fully guaranteed, and would now sell at \$600. A pleasure to any musician; special at. \$300

HEINTZMAN & CO.—Upright, with Boston fall, continuous music rack, beautifully decorated top door, 7½ octaves, 3 pedals; an instrument that would be a credit to any drawing-room and a pleasure to a musician; almost as good as new and fully guaranteed. Regular price \$475, special at. \$325

STEINWAY & SONS, NEW YORK—Light rosewood case with plain panels, 7 octaves, an A1 article in every way. This cost originally \$800, and is as good as new, having been thoroughly overhauled and fully guaranteed; a credit to the manufacturers, special at. \$395

EASY TERMS OF PAYMENT

Square Pianos under \$100—\$5 cash and \$3 per month.

Square Pianos over \$100—\$10 cash and \$4 per month.

Upright Pianos under \$250—\$10 cash and \$6 per month.

Upright Pianos over \$250—\$15 cash and \$7 per month.

Discount of 10 per cent. for all cash with order.

Should these terms be not agreeable, wire your selection at our expense, and it will be set aside until terms can be arranged satisfactorily. Handsome stool and drape with each instrument, and freight paid to any point in Ontario, and proportionate amount to other provinces.

YE OLDE FIRME OF HEINTZMAN & CO., Limited 115-117 KING ST. WEST TORONTO, ONT.

Mention the Canadian Horticulturist when writing.

Canada's Greatest Nurseries

OFFER

3 New Specialties

OF INTEREST TO EVERY LOVER OF HORTICULTURE

BLUE BIRD FLOWER

The handsomest hardy blue-flowered border-plant. Flowers persistently producing sprays of flowers of lovely amethystine blue.

SYRINGA PURPUREA

A glorious, sterling novelty of the popular Mock Orange, a change from the white, flowers having a beautiful purple centre.

HYDRANGEA SOUV. DE CLAIR

The best hydrangea for pot or tub culture. Trusses of purest white, larger and more beautiful than the older varieties.

Send for full description, catalogue and prices.

RELIABLE MEN WANTED to sell these and other Specialties in Fruits and Ornamentals.

Write now for terms.

Stone & Wellington

FONTHILL NURSERIES

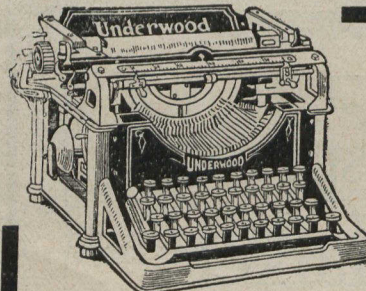
TORONTO

OVER 800 ACRES

ONTARIO

Look out for Peach Adv. October number of Horticulturist

Mention The Canadian Horticulturist when writing



THE UNDERWOOD

RE-BUILT

TYPEWRITERS

PRE-INVENTORY

SALE

The following typewriters are thoroughly re-built by expert workmen. They are fully guaranteed.

Caligraphs	\$12.50
Yosts, No. 1	22.50
Yosts, No. 2	25.00
Yosts, later models	30.00
Remington, No. 2	35.00
Jewetts	40.00
Smith Premiers	40.00
Empires (slightly used)	45.00
Underwoods, No. 1	70.00

Sole Agents the— **VISIBLE UNDERWOOD**
VISIBLE EMPIRE

Catalogues and terms on request.

TYPEWRITERS

UNITED TYPEWRITER CO. LIMITED - TORONTO, ONT.

Mention The Canadian Horticulturist when writing.

A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.

SPECIAL FEATURES ARE BEING INTRODUCED TO MAKE THIS THE MOST ATTRACTIVE EXHIBITION OF FRUIT, FLOWERS, VEGETABLES AND HONEY EVER HELD

THE THIRD ANNUAL

ONTARIO HORTICULTURAL EXHIBITION

WILL BE HELD IN

MASSEY HALL, TORONTO, ONT., NOVEMBER 6-7-8-9-10

NEW, INSTRUCTIVE AND EDUCATIONAL exhibits are being secured

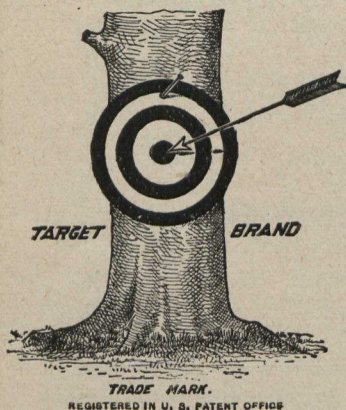
THE BLACK DIKE BAND has been secured to perform afternoon and evening

FOR PRIZE LISTS AND FURTHER INFORMATION APPLY TO

H. B. COWAN, SECRETARY, PARLIAMENT BUILDINGS, TORONTO, ONT.

"TARGET BRAND" SCALE DESTROYER

Positively Kills 100% of SAN JOSE SCALE, OYSTER SHELL BARK LOUSE and all Similar Pests



NOT one live scale in 2,000 is the report of the West Virginia Agricultural Experimental Station as the result of a test made of 4 of the most prominent remedies. The applications were made last December, and the 3rd examination made in May with the above result, and it is the **only** one of them which achieved this **thorough extermination**. Write me for a copy of this Bulletin; it is free. Besides proving the supreme superiority of "Target Brand" Scale Destroyer, this test also proves that the **Fall is the proper time** to deal with these insect pests.

Therefore, **get busy** and get after the information concerning it and get a supply on hand ready to use when the time arrives to do so. Remember **freights are slow**. This preparation contains **no** coal oil, gasoline or benzine, and yet **is far more efficacious** than are those in which these are found, and **it is guaranteed** to do **no damage to buds or trees**. It is **easily mixed** with either warm or cold water **in the field**, and is **not** at all **unpleasant to apply**, and is a **preservative of spraying machinery** and apparatus.

In February, 1905, it cost R. Flourney, of Ft. Valley, Ga., \$128.90 to cover 4,500 4-year-old peach trees with lime-sulphur. In the following November he covered the **same trees** with our Scale Destroyer at a total cost of \$63.00, after another season's growth had been added. **You cannot afford to do without it. You can clean up your endangered trees. It will certainly pay to do so.** Good fruit-producing plantations are a very desirable asset to-day, and the outlook is indeed most encouraging. What this remedy **is doing** for the growers in the scale-infested regions in U.S. **it will also do** for the scale-bossed fruit growers and park superintendents of Canada. Testimonials on application.

The best method of application is with a Wallace Power Sprayer. They are fast superseding all other makes of sprayers because of **their economy of original and after costs, no costs for power, ease of operation, speed, high sustained compressed air pressure, 11 styles, covering everything** from the smallest plants to the largest trees, and **all distances of planting**. Sweeping improvements made this year. They are the **leaders** with the discriminating buyers of to-day. **"Target Brand" Scale Destroyer and Wallace Power Sprayers** go hand-in-hand and hit the bull's eye every time. Try them yourself and see.

Full information free for the asking. Don't put off your enquiring until the time when you should have the goods on hand. Get at it now and so do justice to both yourself, the transportation companies and us. Remember it requires time to get these goods delivered. We fill all orders in rotation as received—delay in corresponding may put you a long way down on the list.

W. H. BRAND CANADIAN REPRESENTATIVE AND SALESMAN **Jordan Station, Ontario**

WILL BE AT THE WESTERN FAIR (LONDON), AND THE ONTARIO HORTICULTURAL EXHIBITION (TORONTO)
Mention The Canadian Horticulturist when writing

Bulbs

For Fall Planting



Our judgment, backed by 25 years' experience, has enabled us to make some very fortunate importations of high-class bulbs this season, and in offering our extensive stock for the selection of our patrons, old and new, we feel sure that the results obtained will make our old friends—good friends, and our new friends—old friends. Write or call to-day for our handsomely illustrated Catalogue. It is free.

Wm. Rennie Co. Limited
BRANCHES:—MONTREAL WINNIPEG VANCOUVER
TORONTO

Mention The Canadian Horticulturist when writing

Bulbs for Fall Planting

LILIUM HARRISII, ROMAN HYACINTHS
NARCISSUS, FREESIAS, OXALIS
CALLA LILIES, TULIPS, CROCUS, ETC.

STOCK
IS NOW
ARRIVING
PLACE
YOUR
ORDER
EARLY



SEND FOR
OUR ILLU
STRATED
CATALOG
GIVING
VARIETIES
PRICES AND
CULTURAL
INSTRUC
TIONS

The Steele, Briggs Seed Co

Limited

TORONTO — HAMILTON — WINNIPEG

Mention The Canadian Horticulturist when writing.

BANK OF HAMILTON

HEAD OFFICE, HAMILTON

Paid-up Capital \$2,500,000. Reserve \$2,500,000. Total Assets \$30,000,000

DIRECTORS—HON. WM. GIBSON, President; J. TURNBULL, Vice-President & Gen. Mgr.; C. A. BIRGE, JOHN PROCTOR, GEO. RUTHERFORD, HON. J. S. HENDRIE, C. C. DALTON, Toronto.

H. M. WATSON, Assist. General Manager & Sup. of Branches

BRANCHES

ONTARIO

Alton
Ancaster
Atwood
Beamsville
Berlin
Blyth
Brantford
East End Branch
Chesley
Delhi
Dundalk
Dundas
Dungannon
Dunnville
Ethel
Fordwich
Georgetown
Gorrie
Grimsby
Hagersville
Hamilton
Barton St. Branch
Deering Branch
East End Branch
West End Branch
Jarvis
Listowel
Lucknow
Midland
Milton
Milverton

Mitchell
Moorefield
Neustadt
New Hamburg
Niagara Falls
Niagara Falls South
Orangeville
Owen Sound
Palmerston
Port Elgin
Port Rowan
Princeton
Ripley
Simcoe
Southampton
Teeswater
Toronto
College & Ossington
Branch
Queen & Spadina Br.
Yonge & Gould Br.
Toronto Junction
Wingham
Wroxeter

MAN., ALBERTA & SASKATCHEWAN
Abernethy, Sask.
Battleford, Sask.
Bradwardine, Man.
Brandon, Man.
Carberry, Man.

Carman, Man.
Caron, Sask.
Edmonton, Alta.
Francis, Sask.
Gladstone, Man.
Hamiota, Man.
Indian Head, Sask.
Kenton, Man.
Killarney, Man.
Manitou, Man.
Melfort, Sask.
Miami, Man.
Minnedosa, Man.
Moose Jaw, Sask.
Morden, Man.
Nanton, Alta.
Pilot Mound, Man.
Roland, Man.
Saskatoon, Sask.
Snowflake, Man.
Stonewall, Man.
Swan Lake, Man.
Winkler, Man.
Winnipeg, Man.
Grain Exchange Br.

BRITISH COLUMBIA
Fernie, B.C.
Kamloops, B.C.
Vancouver, B.C.
Cedar Cove Branch

Correspondents in Great Britain—The National Provincial Bank of England, Limited.
Correspondents in United States—New York—Hanover National Bank Fourth National Bank
Boston—International Trust Co.
Buffalo—Marine National Bank
Chicago—Continental National Bank
Chicago—First National Bank
Detroit—Old Detroit National Bank
Kansas City—National Bank of Commerce
Philadelphia—Merchants Nat'l Bank
St. Louis—Third National Bank
San Francisco—Crocker-Woolworth National Bank
Pittsburg—Mellon National Bank
Collections effected in all parts of Canada promptly and cheaply. Correspondence solicited. Mention The Canadian Horticulturist when writing.

Dominion Line

Montreal to Liverpool

S.S. KENSINGTON . . . Sept. 8th
S.S. OTTAWA . . . " 15th
S.S. DOMINION . . . " 22nd
S.S. SOUTHWARK . . . " 29th
S.S. CANADA . . . Oct. 6th
S.S. KENSINGTON . . . " 13th

Montreal to Bristol

S.S. MANXMAN . . . Sept. 15th
S.S. ENGLISHMAN . . . " 29th
S.S. TURCOMAN . . . Oct. 13th
S.S. MANXMAN . . . " 27th

Favorite Steamers for Apples, Butter, Cheese and Provisions. Fan Ventilation, Cold Storage and Cool Air Chambers. Regular Sailings, Low Insurance, Quick Despatch and Special Attention given to the Handling and Stowage of Perishable Cargo.

S.S. OTTAWA'S RECORD PASSAGE MONTREAL TO LIVERPOOL IS SATURDAY TO SATURDAY

Accommodation Unsurpassed for All Classes of Passengers

GEO. W. TORRANCE } . . . 28 Wellington St. E., TORONTO
J. W. WILKINSON }

DOMINION LINE—17 St. Sacramento, MONTREAL

Mention The Canadian Horticulturist when writing.

The Canadian Horticulturist

Vol. XXIX

SEPTEMBER, 1906

No. 9

The Ontario Cooperative Fruit Growers' Association

A PROVINCIAL organization of cooperative fruit associations was inaugurated on August 14, in the office of THE CANADIAN HORTICULTURIST. It is to be called The Ontario Cooperative Fruit Growers' Association. The following officers were elected: President, A. E. Sherrington, Walkerton; first vice-president, D. Johnson, Forest; second vice-president, W. H. Dempsey, Trenton; third vice-president, Robt. Thompson, St. Catharines; secretary-treasurer, A. B. Cutting, 507 Manning Chambers, Toronto.

The associations that were represented by delegates are located in various parts of the province; thus the meeting was a representative one. The names of the delegates and of their respective associations are: A. E. Sherrington, Walkerton; W. H. Gibson, Newcastle; W. H. Dempsey, Trenton; Wm. Leary, Parkhill; Robt. Thompson, St. Catharines; W. A. D. Ross, Chatham; D. Johnson, Forest; W. R. Davis and W. H. MacNeil, Oakville; Elmer Lick, Oshawa; J. E. Johnson, Simcoe; and Dr. J. D. Hamill, Meaford. Several associations, not represented, including Ingersoll, Ilderton, Belleville, and Orillia, sent word expressing themselves in hearty accord with the movement. Others present were: P. W. Hodgetts, Sec. Ontario Fruit Growers' Association, Toronto; P. J. Carey, Dominion Fruit Inspector, Toronto, and H. B. Cowan, Toronto, who called and acted as secretary at the meeting.

OBJECTS AND PURPOSE

The objects of the association are of a wholly commercial nature, and are designed to assist the various local cooperative fruit growers' associations:

A.—By acquiring and furnishing reliable information regarding fruit conditions and prospects throughout Canada, the United States and Europe.

B.—By assisting the various local associations to market their fruit to the best possible advantage. 1. By placing agents in the leading local and foreign markets. 2. By bringing the local associations in close touch with leading buyers. 3. By acquiring and disseminating reliable information in regard to prices paid in the case of actual sales. 4. By assisting local associa-

tions to procure satisfactory accommodation for the storage of their fruit, and cars for the shipping of same. 5. By cooperating in the purchase of supplies at the best possible prices.

c.—By cooperating with the Ontario Fruit Growers' Association in the formation of additional local cooperative fruit growers' associations, and in such other educational work as will be in the best interests of the fruit growers of the province.

d.—By taking steps that will tend to bring about more uniform grades in the pack of the fruit of the province. Already, following the purpose of this clause, the Dominion Fruit Division has been petitioned to provide that the local cooperative fruit growers' associations be specially inspected and

fruit houses and give demonstrations in correct packing.

MEMBERSHIP

Membership in the Provincial Association shall be confined to the local cooperative fruit growers' associations of Ontario that have charge of the grading, packing and sale of the fruit of their members. Each affiliated association shall have the right to appoint one representative to act as a director of the Provincial Association. The membership fee shall be \$5.00 a year. In case it be required to meet further obligations of the Provincial Association, a small levy per barrel will be made on the affiliated associations.

HOW IT HAPPENED

The need for united action on the part of the cooperative fruit growers' associations in the province has become apparent during the past few years, and is a result of the great increase in the number of these organizations. The meeting that culminated in the organization of The Ontario Cooperative Fruit Growers' Association was called by THE CANADIAN HORTICULTURIST. It was the outcome of considerable correspondence on the question between this journal and cooperative associations, in different parts of the province, that resulted from the trip of the representative of THE HORTICULTURIST this summer to Great Britain. The associations desired that our representative should place them in touch with leading and reliable firms in the Old Country willing to handle Canadian fruit. They asked, also, for certain important information relating to the British fruit markets. The idea of calling this meeting met with the enthusiastic approval of such leaders in the movement for the cooperative handling of fruit as Messrs. A. E. Sherrington, of Walkerton; W. A. D. Ross, of Chatham; Robt. Thompson, of St. Catharines, and D. Johnson, of Forest, who have long recognized the fact that the time was coming when the local cooperative associations should be united through a central organization.

The newly-formed Ontario Cooperative Fruit Growers' Association will proceed along conservative lines. Too

A Leader

I am pleased with the great improvement that has been made in THE CANADIAN HORTICULTURIST. It is one of the leading horticultural journals that comes to my office.—W. N. Hutt, State Horticulturist, Maryland Experiment Station, College Park, Md.

specially protected; it has been requested that a fruit inspector call, at frequent intervals throughout the packing season, at the various cooperative fruit houses, so as to guarantee a high standard of character and pack in the fruit sold by the associations. The Fruit Division has been asked, also, to hold special meetings in those localities where cooperative fruit growers' associations are situated, to demonstrate the best and most approved methods of packing fruit, particularly apples, in boxes and barrels. In reply to these requests, Mr. Alex. McNeill, Chief of the Fruit Division, promises to assist the newly organized association in every way possible; special protection will be afforded and arrangements already have been made for an expert packer to visit the cooperative

much will not be attempted the first year. In the past, several local associations have sent agents to the northwest and other markets. It is possible that next year the Provincial Association will appoint agents to represent all the local ones. In the meantime, the officers will be acquiring information regarding the possibilities.

LEADING BUYERS AND GROWERS MEET

At the close of the meeting a number of leading buyers and shippers, and a representative of leading steamship lines, including some from Great Britain, met the growers and discussed matters pertaining to crop prospects and sales. Their names are as follows: R. J. Graham, of Belleville; Eben James, Toronto, representing Woodall

& Co., Liverpool, Boyd Barrow & Co., Glasgow, M. Isaacs & Sons, Limited, London; Frank Hamilton, of Frank Hamilton & Co., Liverpool; A. S. Chapin, Toronto, representing Thompson & Mathieson, Glasgow, Henry Levi, London, D. Crossley & Sons, Liverpool and Manchester, and North of England Fruit Brokers, Manchester; E. T. Bolland, Toronto, representing The Robert Reford Co., Limited, of the Thomson Line, the Donaldson Line, Lord Line, etc.; Fred. Barker, Toronto, representing J. C. Houghton & Co., Liverpool and London, Thomas Russell, Glasgow, J. and H. Goodwin, Manchester; and A. E. W. Peterson, Toronto, representing Jas. Adam, Son & Co., Liverpool, Jas. Lindsay & Son, Limited, Glasgow, Northard & Lowe, London, and Man-

chester Fruit Brokers, Limited, Manchester.

The fact that an organization of this kind has been formed, and that the members were met by leading men in the trade at the initial meeting, is an important step in the direction of placing the fruit trade of Canada on a much more satisfactory basis. The various local cooperative associations have done good work, but have been handicapped somewhat by lack of unity and, therefore, much may be expected from their combined efforts through a provincial association. It will be of value, not only to the affiliated associations and to the province of Ontario, but it will have, also, a marked effect on the progress of fruit matters all over the Dominion.

Apples on Sandy Soil

THE following communication was received by THE HORTICULTURIST from Mr. Newton Cossitt, Grimsby, Ont.: "I have an apple orchard that does not bear fruit. Eight years ago it produced a very good crop, but little or none before or since. The trees are 20 years old, are Spys, Baldwins, and R.I. Greenings, in about equal proportions, and are planted on sandy soil. The trees blossom profusely, but fail to set fruit.

"I have tried various schemes to induce fruitfulness. The land has been liberally treated with manure, including 20 bushels of wood ashes per acre. I have plowed down four crops of clover within the past eight years. Some years the orchard is left in sod, and other years kept under cultivation. The trees have been well pruned, some times in winter and other times in June. I was told to girdle the trees, and tried it on one. It died. Some person advised me to severely head back. Two years ago I did this with five trees; as yet there are no results. A neighbor suggested that I prune the trees off close to the ground, and I have almost concluded this is the best scheme. However, I decided to ask THE CANADIAN HORTICULTURIST or its readers for a less heroic solution of the problem."

The question resolves itself into this: Can apple trees be grown successfully on sandy land?

In reply to the question Mr. W. T. Macoun, horticulturist at the Central Experimental Farm, Ottawa, wrote as follows: "Some of the best apples and best crops of apples are produced on sandy soils, although the Baldwins succeed better on heavier land. Occasionally a tree will bloom and not set fruit from some apparently physiological

cause even when the tree is making good growth.

"There are three causes of unfruitfulness in trees that bloom profusely but do not set fruit. First—Lack of proper pollination. Some varieties of apples are self-sterile or nearly self-sterile, and need the pollen of some other variety blooming at the same time to pollinize it and cause fruit to set. In the present case we should have concluded that the unfruitfulness was due to lack of proper pollination if there had been only one variety, and that the Spy, as this variety is practically self-sterile, and being a late bloomer requires a late blooming variety blooming near it, for the best results. An isolated orchard of Spy trees we know of bore little or no fruit on this very account. Even in the present case we should not expect much fruit from the Spy unless there are some later blooming kinds than Baldwins or Greening near it.

"Second—Injury from frost or other weather conditions. It is not, however, likely that these have affected the flowers at Grimsby.

"Third—Injury from the insects known as the Eye-Spotted Bud Moth, and the Cigar and Pistol Case Bearers. The injury from these insects is often very great, and it is done at a time when one is not usually looking for it, namely, just when the buds are opening. This is the most probable cause of unfruitfulness. A tree may bloom profusely and yet a large proportion of the flowers may have been rendered useless for setting fruit by the Bud Moth which cuts through the buds and destroys the essential part of the flower.

"In the various experiments which have been tried to produce fruitfulness, no mention is made of spraying, and we

should strongly advise as a last resource, if this has not already been done, the thorough spraying of the trees with Bordeaux mixture and Paris green, as there is probably injury from the Black Spot fungus as well. The two most important sprayings are just when the leaf buds are opening and shortly before the blossoms open. A third spraying should be given soon after the flowers fall."

A NOVA SCOTIA OPINION

The matter was also referred to Mr. R. W. Starr of Wolfville, N.S., one of the successful orchardists in that province. He replied as follows:

"It is impossible to say why these trees do not bear fruit. It would seem strange to us in this part of Nova Scotia to find an orchard in the condition in which Mr. Cossitt claims his to be, continuously refusing to bear. Possibly overproduction of wood growth, induced by excess of nitrogen, and severe pruning may be the main cause; or the soil being sandy may lack potash, lime, or phosphates. Experiments with these on different portions of the orchard may solve the question. At the same time I would withhold barn manure and prune no more than was absolutely necessary.

"As to the question of successfully growing orchards on sandy land: If he can grow strong, healthy trees, there should be no soil reason why they should not bear fruit. If they do not, we must look further for cause—probably to some climatic influence, such as cold, wet weather or frost, during the time of blossoming, sufficient to injure the pollen, or prevent its distribution by insects or wind. All fruit blossoms require a certain amount of heat and dryness of atmosphere at the season



The New Cooperative Fruit Movement

A group, taken after the meeting, when many of the delegates had left to catch their trains. Only about one-half the number of delegates and others are to be seen in the cut. Their names are as follows: 1. A. E. Sherrington, Walkerton, President; 2. D. John-on, Forest, 1st Vice-President; 3. W. H. Dempsey, Trenton, 2nd Vice-President; 4. A. B. Cutting, Toronto, Sec.-Treas. 5. W. A. D. Ross, Chatham; 6. Wm. Leary, Parkhill; 7. W. R. Davis, Oakville; 8. W. H. MacNeil, Oakville; 9. H. B. Cowan, Toronto; 10. A. S. Chapin, Toronto; 11. Fred. Barker Toronto; 12. A. E. W. Peterson, Toronto; and 13, E. T. Boland, Toronto.

when the pollen is ripe and the pistil ready to receive it, and make fertilization successful.

Possibly the orchard may be exposed to cold winds. If so, he must plant wind breaks of quick growing trees to protect it. Perhaps it is situated in a low spot subject to frost. For

that, I know of no protection except a strong smudge of smoke on the windward side during the cold nights when the trees are in bloom.

"I have been growing apples all my life, but I have never had such an experience in orcharding as that described by your correspondent. Consequently

I am not in a position to do other than make suggestions, which may be altogether astray from the case, as I know so little of the real facts and conditions of the orchard. If it were mine I should try a great many things, and make many experiments before I tried the last resort, pruning close to the ground."

Expert Opinions on Peach Problems

THERE are some prominent defects in the methods of handling and marketing peaches in this country. A few of them were mentioned in the last issue of THE HORTICULTURIST. That peaches should not be picked green, nor handled roughly, nor packed on end, as is the custom in most orchards in our peach districts, is the opinion of those who are in close touch with the industry and with the trade. THE HORTICULTURIST is in receipt of various letters that discuss these questions in more or less detail.

GREEN PEACHES IN TORONTO MARKET

The following article, taken from *The Canadian Grocer*, shows the effect, on

the trade, of green peaches and of packing peaches dishonestly:

"If the grocer who usually supplies a prominent Toronto financier with peaches could have seen him one Saturday recently, on the Niagara wharf, buying half a dozen baskets of 50-cent early Clingstones at a dollar a basket because the top layers were large and he thought they were Crawfords, he would have regarded it as a huge joke. It illustrates the unsatisfactory basis of the fruit trade in Ontario. The millionaire had a perfect right to buy them and to cart them home. The probability is he blames the grower and will buy his next peaches at the grocer's.

"That is but one instance. A working man with his wife and family were standing at a fruit stall in Toronto. They were on their way to Island Park for an afternoon out and husband and wife were debating whether or not to buy a basket of early peaches. They were 35 cents.

"We can't afford it," said the little woman.

"Oh, it's only 35 cents and we don't go often. You can can what are left to-night. I'll help you," replied the good-natured man.

"They got the peaches and got on the boat and the children danced around anticipating a treat. It was agreed they

might have two each. The wife took out one, it was green; another and it was green, and in a minute or two they knew they had been gulled.

"That kind of thing hurts trade and until a more systematic basis is established for the fruit trade of Ontario, there will continue a good deal of dissatisfaction and ill-will. There is no reason why dealers should not buy Ontario peaches with the same sense of security they buy oranges or any other kind of California fruit. They ask for a certain size at a certain price and get it. What a boon it would be to the grocery trade if peaches were packed of a uniform size throughout the package and they could be ordered according to size! The consumer would gain, too, and first-class peaches would be less expensive because they would not then, as now, have to make up the losses caused by poor and unsystematic methods. Of course, the remedy is in the grocer's hands, but if the grocers had a strong provincial organization they could do much to accelerate the movement."

COOL PEACHES BEFORE SHIPPING

To place peaches on distant markets in good condition, it is necessary that they be placed in refrigerator cars and cooled quickly. Quick refrigeration is essential to prevent the spread of *Monilia* (brown rot) in the car, which can do so much damage in 24 hours. No refrigerator car yet constructed can give quick refrigeration. For this reason, it is advisable, when possible, to have the fruit cooled before it enters the car. The following letter on this point was

received recently from Mr. Alex. McNeill, Chief, Fruit Division, Ottawa:

"Canadian shippers of fruit are not the only ones who are experiencing the evil effects of loading on cars without first cooling the fruit. This season, according to *The Packer*, of New York, very serious complaints were made con-



Caught in the Act

Mr. W. M. Orr, one of Ontario's successful fruit growers, picking peaches in his orchard at Fruitland

cerning the condition of the Georgia peach crop, which condition would have been in all respects satisfactory had the fruit been cooled before being shipped in the cars. *The Packer* writes as follows: "If the Georgia shipping points could have a storage to cool off the peaches before loading them into the cars, it would mean a great deal more to the

shippers in advanced prices than the expenditure."

J. H. HALE ON PEACH TOPICS

THE HORTICULTURIST has received the following letter from Mr. J. H. Hale, of Connecticut and Georgia. It expresses expert opinion on various topics of interest to peach growers: "The article on peach packing in the August issue of THE CANADIAN HORTICULTURIST covers the situation in an admirable way. There is no question that, if fruit can be handled in refrigerator cars or through cold storage, it will keep longer after it is allowed to come up to full maturity on the trees, rather than picked in a half green state, and also be much better for consumption. The packing of peaches on end is all wrong, both for best display of the fruit and for safety in transportation.

"There is probably no package yet invented that is proving so universally satisfactory as the six-basket Georgia carrier. Next to that, the 20-pound California boxes. Both are somewhat costly, however. People who are looking for cheap packages, and have only a low grade market to supply, can do as well perhaps by using the inferior Climax basket, or other packages of similar construction.

"Rainy weather in harvest season hurt the Georgia peach business this year. We have a fine crop in Connecticut, but cloudy, damp weather all through July put them on the ragged edge. The sun is out now, and if we have favorable weather through August and September, we ought to have the finest crop on record."

Fire Blight and How to Know It

B. Barlow, O. A. C., Guelph

MANY fruit growers are of the opinion that blight on the apple and blight on the pear are two different diseases. This idea is erroneous. They are identical in character. Mr. Barlow, Demonstrator in Bacteriology, O.A.C., writes: "*Bacterium amylovorum* is a species of bacteria which causes a disease of the pear, quince, apple, mountain ash, and sometimes the plum. The disease is called by several popular names, as fire blight, pear blight, and twig blight, but the germ which causes it is the same and the disease spreads from any one of these trees to any other. It is very destructive to the pear and quince, often killing the whole plant. It diminishes the apple crop by infecting the blossoms and killing the fruit spurs, and it sometimes kills branches, or even whole trees of the apple."

For the benefit of the readers of THE HORTICULTURIST, Mr. Barlow also out-

lined a simple method of determining whether or not fruit trees are affected by the disease: "Any fruit grower can readily determine whether or not his trees are affected with pear blight. Fix a needle firmly in a wooden handle such as a penholder, burn the needle clean in the flame of a candle and use it to tear out a fibre of the inner bark from a newly blighted twig, or thrust the needle into a recently blighted young fruit of apple or pear. Now thrust the disease-bearing needle into a sound, healthy green fruit growing on the tree. Then burn the needle clean again in the candle flame. In two to four days the blight appears and spreads steadily from the needle puncture, at length killing all tissue of the green fruit. A bacterial growth pours out from the puncture as a pearly, viscid, bead-like drop. This may be so copious as to flow down the side of the pear. Other similar bead-

like drops often exude through the skin of the pear at a distance from the puncture. The twig bearing the inoculated fruit should be broken off after three or four days and placed in water, so that the further progress of the disease can be observed without danger of infecting the tree. It is but the work of a few hours to test many trees from the same, or from different orchards, whether apples, pears, or quinces. It is, of course, necessary to burn the needle clean each time before beginning a new test, and it is well to make controls by thrusting the clean needle into green pear fruits. No disease will develop in this case. At the end of the test the diseased pears should be burned. We do not know any cure for pear blight, but diseased branches may be cut out and burned."

Remove the crop remnants as soon as the crop is done.

The Joint Stock Company Plan

J. G. Mitchell, Clarksburg, Ont.

FRUIT growers in this district tried several times to form associations, but always failed. Not being discouraged, however, a few of them decided to cooperate on the joint stock company plan. Five growers got together, subscribed \$500 each, and formed a company for the purpose of dealing, wholesale and retail, in all kinds of fruit; to build and own fruit houses, cold storage plants and to own and operate evaporators, canning factories, cider and pulp mills, factories for the making of barrels, boxes, crates and any other packages required in the handling of fruit. The name of the company is the Georgian Bay Fruit Growers', Limited, share capital \$25,000, divided into 1,000 shares of \$25 each. The

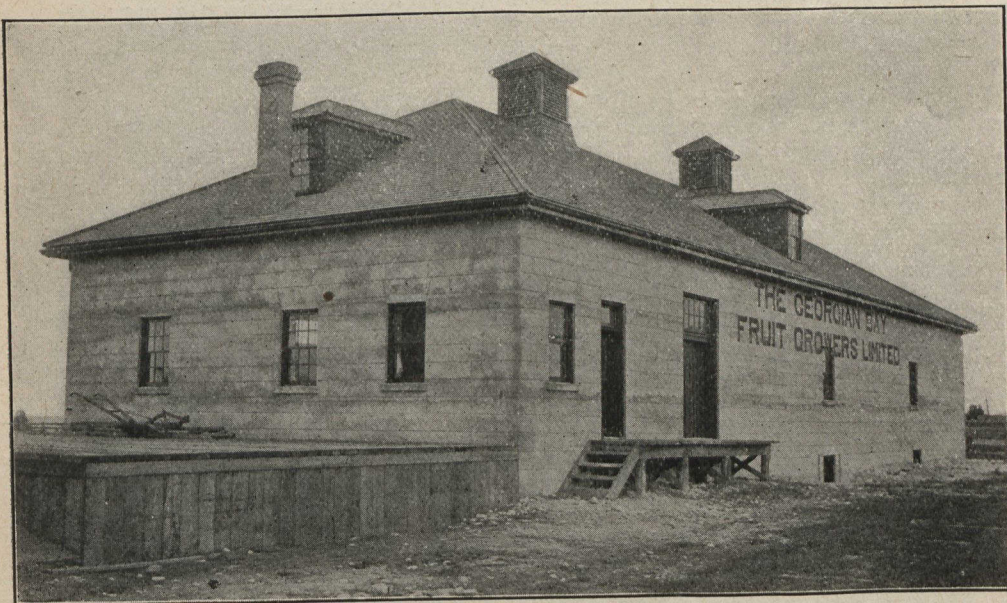
year round; complete independence. The fruit is gathered and stored for higher prices; that is, put on the best markets of the world in the best possible way; the last cent is secured, less the cost of getting the fruit to market. A storage fee is charged to members of at least three cents a barrel up to 100 barrels a share; on over 100 barrels a share at least five cents; to non-members, at least 10 cents. The total fees are returned as a dividend on the investment. When there are more than enough to pay 6% the balance is placed in the bank as reserve against a light year. The storage capacity of the building is 10,000 barrels and, being situated on the main switch of the G.T.R., it gives the very best facilities for shipping.

district in one big company with several fruit houses under one head office, to do business on a big scale and thus reduce expense of management. Already barrels are cut from 50 to 30 cents each.

When a member brings in a load of apples he receives a ticket for the same. A duplicate, which the company keeps, is entered in the ledger to his credit. When the fruit is packed, he is again credited with the amount of No. 1's and No. 2's which his apples graded, also the culls, if any. The average selling price on each variety and grade is the price which all receive.

I think the joint stock company plan is far ahead of associations that have no place for winter storage. Associations are obliged to ship in the fall, when apples are cheap. A joint stock company can keep its fruit till February or March, if necessary. Our company has no trouble in selling shares, as there are people inquiring about it nearly every day. A great many who had no apples last year are with us now. Judging by the experience I had in the past trying to organize fruit growers' associations, and by the success we are having with the joint stock plan, I will have nothing more to do with associations whatever.

We have a large amount of stock sold in other districts, besides Thornbury, where branch houses will be built very shortly. Soon, this company will be, if not already, one of the strongest apple combinations in the world, working on the cooperative plan. Business was commenced only a year ago, August, 1905; now, everything is working satisfactorily, and the prices realized are the highest of any shippers to the British market.



A Fruit House Built by Enterprising Growers and Built to Last

head office is at Thornbury, in the county of Grey. The directors are J. G. Mitchell, Geo. Mitchell, John Veitch, Wm. Reekie and Albert Moore.

The company applied for a charter under the Ontario Act for all the above, which was granted. Observe that \$500 is one-fifth of \$2,500, which is 10% of the amount necessary to capitalize at \$25,000. The subscribed \$500 gave each of the charter members 20 shares, which was afterwards sold and transferred to others. The provisional stock is all sold and also some of the general stock. This provides funds to carry on building operations. There are about 125 shareholders, holding stock from \$25 to \$125 each.

The advantage of this plan over the loose association is obvious. It is limited liability and a financial interest all

The fruit is all graded and packed in the fruit house by experienced men, and so well is it being done, the company is already outselling some of the old shippers. The company has a banking by-law, whereby warehouse receipts can be issued on the security of the apples and advances can be made to our members as soon as the fruit is brought in. The members do not have to wait until the fruit is sold before realizing on it. This helps the members out while the apples are held in storage.

Everything is working satisfactory. There are already behind the company enough orchards to produce in a good year 25,000 to 30,000 barrels. The total capital stock is offered for the purpose of building more apple houses, cooper shops, cold storage, an evaporator, etc. The desired object is to have the whole

Fruit Graders.—In answer to a request from THE CANADIAN HORTICULTURIST for information regarding mechanical fruit graders, Prof. W. N. Hutt, State Horticulturist, Maryland Experiment Station, writes: "Some of the larger peach growers in Maryland make use of machine graders, but the greater proportion of the crop is packed by hand. The most satisfactory machine grader I have seen in operation is that made by Heach & Dromgold, of York, Pa. This machine will sort perfectly as to size. It does not bruise the fruit. The decayed or defective specimens are removed by hand as the fruits are rolling slowly down the chutes. This machine grades much more rapidly and accurately than can be done by hand. One of our largest shippers uses this machine, and says it gives the best satisfaction."

Spring Flowering Bulbs Planted in the Autumn

W. T. Macoun, Horticulturist, Central Experimental Farm, Ottawa

SEPTEMBER is the month in which to plan and plant for next spring.

The best plants to furnish attractive and abundant bloom in the garden at that time are the spring flowering bulbs, the most useful of which are the snowdrops, crocuses, scillas, hyacinths, narcissi, and tulips. A judiciously chosen selection of these will give bloom from the time the snow goes until the month of June.

A spring flowering bulb may be described as a fleshy, underground bud, from which roots develop in the autumn and leaves and flowers in the spring. The plant grows rapidly in spring, produces leaves and flowers and dies down; the roots wither up and the bulb then becomes dormant until new roots are made in early autumn. During this period of growth the flowers for the next season are formed in the bulb, and sufficient food and energy are stored up in it to cause rapid development when the proper time and conditions come. With this knowledge of the character of bulbs and that the flowers are already formed in them before they are planted, it can be easily understood that large, well-developed bulbs are more likely to give better results than small ones; when buying this should be taken into consideration.

Bulbs do best in loamy, well-drained soil. They will rot in soil not well-drained in a wet summer. A sandy loam is better than a clay loam. The soil should be dug to a depth of 12 to 15 inches and well-rotted manure worked thoroughly into it the previous spring, if possible. If applied in the fall, the manure should be buried below where the bulbs will be after planting, as when pure manure comes in contact with the bulbs they are liable to rot or become diseased.

While the bulb contains the future flower and considerable energy, this energy will not be exerted to the full unless the bulb is well rooted before winter sets in. For this reason the bulb should be planted early enough to have a good root system before winter. Very often the cause of poor flowers in the spring is lack of roots. If planted during the latter part of September or early in October, bulbs will have ample time to get well rooted before winter. If through any cause planting is delayed until late in October or November, the soil should be heavily mulched with straw, strawy manure or leaves, to prevent the soil from freezing early, and thus give the bulbs a chance to make roots for some time longer than they would if not mulched, but late planting is seldom satisfactory.

The depth of planting and distance

apart of the bulbs will depend on the size of the bulb. Tulips, narcissi and hyacinths should be planted from four to six inches deep, measuring to the bottom of the bulb, and about the same distance apart. Snowdrops, crocuses, squills or scillas, should be planted from two to three inches deep and about two inches apart. If the soil is clayey or if there is manure not well mixed with it, it is advisable to put a little sand under each bulb to prevent rotting.

Bulbs are more effective in masses or clumps than in single rows. While tulips and hyacinths are usually planted in beds (their place to be taken by annuals later on), and are most effective when used in this way, they may be used with good effect in small clumps dotted through the perennial border. By this method of planting there need be no large bare places in the border without bloom after the bulbs have done flowering.

In addition to its value in keeping out frost while roots are developing in the early part of winter, a mulch is very beneficial in affording the bulbs some protection from the changes of temperature in winter and is especially useful when there is no snow on the ground. As soon as the snow goes in spring the mulch should be gradually removed, as tulips especially make early and rapid growth and may be broken if left to grow through the mulch.

VARIETIES RECOMMENDED

There are so many fine-named varieties of tulips, narcissi and hyacinths that it is rather difficult to choose a few to recommend which will combine all the desired characteristics and be cheap enough to be bought by the average person. The following list, however, is a good one:

TULIPS—EARLY SINGLE

Chrysolora, height 11 inches, golden yellow; Keizerskroon, 14 inches, crimson-scarlet, with broad yellow margin; Joost Van Vondel, 10 inches, crimson, flaked with white, flowers large; Joost Van Vondel (white), 10 inches, pure white, large flowers; Proserpine, 12 inches, rich rosy carmine; Vermilion Brilliant, 10 inches, bright vermilion; Couleur de Cardinal, 11 inches, bronze scarlet; Cottage Maid, 9 inches, white, bordered with rosy pink; Duchesse de Parma, 13 inches, orange red, with broad yellow edge; Thomas Moore, 14 inches, orange, sweet scented; Van Der Neer, 10 inches, violet; Standard Silver, 10 inches, white, feathered with crimson.

TULIPS—LATE SINGLE

Retroflexa, medium height, pure yellow, reflexed petals, graceful; Macrospila,

medium height, brilliant scarlet, with black and yellow base, sweet scented; Fulgens, tall, crimson-scarlet with yellow base; Golden Crown, medium height, golden yellow, edged with crimson; Snowdon (Le Candeur), medium height, pure white, becoming suffused with pink; Parisian Yellow, tall, bright yellow, pointed petals, graceful; La Panachee, medium height, cherry crimson, flaked with white, variegated foliage; Picotee, tall, waxy white, with faint pink edge; Goldflake, tall, bright orange scarlet, flaked with yellow, sweet scented; Spathulata, tall, rich crimson-scarlet, blue black base; Maid of Holland, medium height, cherry red, striped with yellow, sweet scented; York and Lancaster, (Shandon Bells), medium height, white with a deep margin of rose.

TULIPS—EARLY DOUBLE

Alba Maxima, medium height, pure white; Couronne d'Or, medium height, orange yellow; Helianthus, medium height, red and yellow; Imperator Rubrorum, medium height, crimson-scarlet; Murillo, medium height, blush pink; Purple Crown, medium height, purplish red.

TULIPS—LATE DOUBLE

Mariage de ma Fille, tall, white, feathered with cherry crimson; Rose Pompon, medium height, pale yellow, well flaked with pink; Yellow Rose, medium height, golden yellow, sweet scented; Paeony Rose, medium height, scarlet; Overwinner (Belle Alliance), medium height, blue violet, feathered with white; Admiral Kinsbergen, medium height, brownish violet.

TULIPS—PARROT

Cramoisie Brilliant, medium height, deep crimson; Lutea Major, medium height, golden yellow; Perfecta, medium height, yellow, feathered with scarlet. Darwin Tulips, mixed. Bizarres, mixed. Byblooms, mixed.

NARCISSI

Emperor, large trumpet, yellow; Horsefieldi, white perianth and yellow trumpet; Sir Watkin, sulphur yellow petals, large yellow cup, tinged with orange, sweet scented; Barri Conspicua, pale yellow petals, cup orange scarlet, sweet scented; Poeticus Ornatus, perianth pure white, cup margined with scarlet, sweet scented; Poeticus, perianth pure white, cup orange scarlet. Other good varieties are: Bicolor Grandis, Albicans, Wm. P. Milner, Minnie Hume.

The following varieties are less hardy, and need to be replaced from time to time. They are, however, cheaper, and owing to their great beauty are well worthy of cultivation: Obvallaris, Golden

Spur, Princeps, Van Sion (double), Sulphur Phoenix.

HYACINTHS—SINGLE PINK AND ROSE

Charles Dickens, rosy pink; Gigantea, blush pink, large spike; Norma, fine rosy pink, large bells; Sarah Bernhardt, deep rose.

HYACINTHS—SINGLE RED

General Pelissier, deep crimson; Lord Macaulay, rose with carmine stripes.

SNOWDROPS AND CROCUSES

The snowdrops are the first flowers of spring, and usually bloom before all the snow has left the ground. The species known as *Galanthus Elwessii* is the most satisfactory. A good plan is to plant the snowdrops where the snow melts early so as to obtain flowers at the earliest possible date.

Crocuses bloom shortly after the snowdrops and are very showy little

Scilla Sibirica is the most satisfactory. *Scilla campanulata*, which blooms late in May, is useful as it comes when most of the bulbs are over. Chianodoxa, or Glory of the Snow, is another blue flower which is also satisfactory. *Chianodoxa Luciliae* is the one usually planted, but the flowers of *C. gigantea* are larger. Grape Hyacinths are also dainty little flowers which succeed well. The fritillarias are interesting spring flowering bulbs, the Crown Imperial being a very rapid growing and striking looking plant in early spring. The Guinea-hen flower, or common fritillaria, is also attractive.

A Rose that Blooms Twice

Mrs. Arch Thomson, Erin, Ont.

I have a rose bush that produced two crops of bloom during 1905. I got it from Washington state three years ago. It is a house rose, I was told. In the house I managed only to keep it alive. Two years ago I put it in the garden, as I understood they are cultivated out of doors in Washington. Friends told me that I would lose it, but I thought I would try the experiment.

Last summer it bloomed at the same time as other roses, about July 1. The flowers were pink, quite large and double. About August 15 it budded again, and bloomed early in September. The flowers were just as large and perfect as those of the previous blooming. It is planted on the south-east side of a picket fence, and gets just the same attention as other rose bushes.

Last January, when the big thaw came, I wrapped it and other rose bushes with some old canvas. This spring it budded again, and bloomed about the last of June or July 1. The flowers that opened were perfect, but some of the buds were stung and did not open. The bush again bloomed in August.

Flower Notes

Always keep house plants clean.

Remove every dying leaf on house plants as soon as seen.

Turn the plants in the window garden at least once a week.

Plant growing by those who simply grow plants because their friends have them, is likely to be a failure.

To develop the beauty of their color, most flowering plants require a good deal of sunshine.

Many people keep their rooms too warm for the health of both plants and persons.

Treat your house plants to a draught of fresh air on every fine day, by opening a window or door some distance from them.



Spring Flowering Bulbs Planted with Perennials in Border, C. E. F., Ottawa

HYACINTHS—SINGLE WHITE

Alba Superbissima, pure white, large spike; La Grandesse, pure white, the best white; Queen Victoria, pure white.

HYACINTHS—SINGLE BLUE

La Peyrouse, fine porcelain blue; Grand Maitre, deep porcelain blue; King of the Blues, deep glossy blue.

flowers. They should be planted in masses in the border or around shrubs or trees. They are also effective in the lawn and are planted by cutting and raising a small piece of sod and planting the bulb in the soil and replacing sod.

MISCELLANEOUS

The scillas, or squills, are bright blue in color, and very striking in early spring.

Lawn and Garden Notes for September

THE early frosts of fall are due about the middle of this month.

If tender and sensitive plants are protected, they may yet flourish for the Indian summer. When frost is expected, it is well to water the plants and the ground thoroughly. The water should be applied just at nightfall. Covering the plants with cloth or paper will accomplish the same purpose. A little work at the right time will be amply repaid by a longer season of bloom and beauty in the garden.

THE HOME VEGETABLE GARDEN

At the first sharp touch of cold, gather all the remaining fruits from the tomato and squash vines. Tomatoes will ripen in a dry cellar. Squash should be stored in a dry atmosphere and at a cool temperature. They should be laid on shelves one tier deep, and never piled, if it is desired to keep them long.

It is a good custom in the home garden to dig potatoes as soon as matured, and place them in cellar. Potatoes seldom rot when so treated, provided that all injured tubers are carefully culled out. By the early harvesting you prevent the scab and save your potatoes from white grubs and mice. The potatoes keep admirably, if not piled so as to become heated. Look them over for any that are injured, for should there be such, they will ferment, acidity set in and of course rot; if in contact with others, they too will become diseased and great damage ensue.

The rhubarb plant is a gross feeder, and it is well to mulch the bed with a heavy coat of rotted manure.

Continue to earth up the celery, or blanch with boards. For late autumn use, it is probably best to bleach the plants with earth, as it also protects from frost and is much cheaper than bleaching with boards.

Winter varieties of radish may be sown early in September, harvested before severe frosts, and stored in sand in a cool cellar. Just before using, if thrown into cold water for a short time, they will regain their crispness.

Spinach for cutting early in spring should be sown this month. Protect by frames or other means through the severe winter.

Why not plant a few Egyptian tree-onions, or winter top sets, this fall? They start so early in the spring that they are ready for use long before any other onion can be had. Plant before the middle of September.

The tuberous chervil is much esteemed by those who know its value. It is perfectly hardy and like the parsnip, the better for frosts. The seed may be sown in September. Try a packet.

Why not try to grow a few mush-

rooms this fall? You may not succeed the first time, but what's the difference? The novelty of the experiment is worth the trouble.

THE FRUIT GARDEN

After raspberries and blackberries are harvested, the old canes that bore fruit may be removed. Whether or not the tops should be cut back in fall depends largely on the locality. It is safer to leave this operation until spring. Should they have been injured by winter-killing in the meantime, they can then be cut back to sound wood.

Currants and gooseberry bushes are very hardy, and may be pruned any time in fall or winter. New plants may be planted in the autumn. Make cuttings as soon as the leaves fall, store for a short time, and plant later in the season.

BULBS FOR HOUSE CULTURE

Dutch bulbs for winter flowering should be potted in September. If you have not ordered them, do so at once. Then immediately set about getting ready a compost in which to plant them on their arrival. Equal parts of garden loam, sand, and well-rotted cow manure make a good soil. Mix the compost well.

It is well to grow several bulbs in one pot, instead of single specimens. In a six-inch pot, may be put three tulips, hyacinths or daffodils; or six crocuses or snowdrops. The crowns of tulips and daffodils should be about one inch below the surface of the soil. Hyacinths should project slightly above the surface. Provide drainage.

As soon as potted, water the bulbs well. Then set the pots in the cellar or any place that is cool and dark. They will then make roots without starting to grow at the top. A bulb with strong roots, before putting forth leaves, is in a condition to produce good bloom. Leave the bulbs in the cellar for six weeks from potting. By that time they will have made good root growth. By bringing only a portion of them to the window at a time, a succession of bloom may be had. It is best to delay bringing to a warm room. Do it gradually. Place first in an intermediate temperature.

HANGING BASKETS

Many persons fail to grow plants successfully in baskets. The reason is usually found in lack of moisture at the roots. Basket-plants should be watered often enough to keep the soil moist.

Tradescantia is a good basket plant, provided it is given a soil that is not too rich. A rather poor soil will cause the joints to form closer together; therefore the plant will have foliage enough to produce a good effect. Pinching back

occasionally will cause it to branch freely.

Sweet alyssum makes a good basket plant for winter. If prevented from ripening seed, it will bloom through the entire season.

The pink oxalis is a charming plant for a winter basket, producing bloom in wonderful profusion from November to May. In September, pot new tubers, or re-pot the old ones, in fresh compost of sandy loam and a little finely-ground bone meal. Next spring, give it a rest by withholding water until it gets dry. Allow it to remain dry until the following September. Then repeat the process.

The othonna blooms freely and is exceedingly cheerful and attractive. Moneywort, a strong, rapid grower, also is good.

One of the best plants for winter baskets is asparagus sprengeri. A plant that has been growing in the pot all summer is not in good shape to give good results in winter. It is best to propagate new plants by division of the tuberous roots. Pot in fairly rich soil and give plenty of root room.

GARDEN CALADIUM

The bulbs of caladium, or elephant ear plant, should be dug early in the fall from the border as soon as frost has touched the foliage. Lay the bulbs in a dry room or shed for a week or two, when they can be packed in dry sand or dry earth, in pots or boxes and stood away in a temperature of 45 to 50 degrees, and safe from mice and rats.

TIGRIDIAS

Tigridias are gorgeous little summer flowering bulbs, natives of Brazil, and are seldom seen in our gardens. Their beautiful tulip-like flowers, so richly marked in such vivid colors, make them very effective during the last month of summer. The bulbs should be dug early in the autumn before frosts, and stored away, after drying them first, in dry sand, in a warm room or cellar, in a temperature of 50 to 55 degrees. A lower temperature is dangerous.

FALL WORK WITH BEGONIAS

As soon as summer flowering and tuberous-rooted begonias in pots stop producing flowers, which is usually about the month of August or early in September, less water should be given them. This treatment should be continued until the foliage is well decayed, then water should be given only when the soil gets moderately dry. The plants can then be put in a light cellar or cool room, where the temperature ranges from 45 to 50 degrees, not higher. About March or April, the plants can be brought out into the window and

re-potted into pots a size or two larger. About one-third of the old soil can be shaken from the roots. Light soil of equal parts bush or leaf soil, potting soil, and sand, with plenty of drainage, suits these plants very well. Avoid too

about the last of September or early in October. The common method of propagation is by division. By all means plant peonies. They have so long had a place in the garden, that the amateur flower-lover would be lost without them.



A Youthful Poppy Fancier

frequent waterings for a few weeks after re-potting. Start these begonias into growth in an east window in a temperature of about 65 degrees.

PLANT PERENNIALS IN AUTUMN

Most perennials that start early in the spring can be planted in the autumn,

Phlox, golden glow, bleeding heart, German iris and many more, also, do better when divided and planted in the fall. Buy extra plants from the nurseries. By planting now, they will become well rooted and accustomed to the change before winter sets in.

WATERING HOUSE PLANTS

A good way to water plants, according to an experienced florist, is to immerse the pot in water, letting it rise an inch or two above the top of the pot. When the bubbles cease to rise it is a sign that not a dry spot is left in the earth. The fault with the ordinary method of watering is said to be that the water does not thoroughly penetrate the earth, the roots remaining dry, while the top is moist. The plants should be watered only when they seem dry.

MISCELLANEOUS HINTS

Seeds of sweet alyssum may be started in pots or boxes in September or October. Dig up a few plants of petunia and phlox and plant in boxes or pots. There is always a place for the bloom in the winter window-garden.

Gather and save seeds from the flower border and beds. It is well worth the trouble to have a few varieties of seed, selected by yourself, for sowing next spring. Dry the seeds slowly for a few days, then store in a cool, dry place.

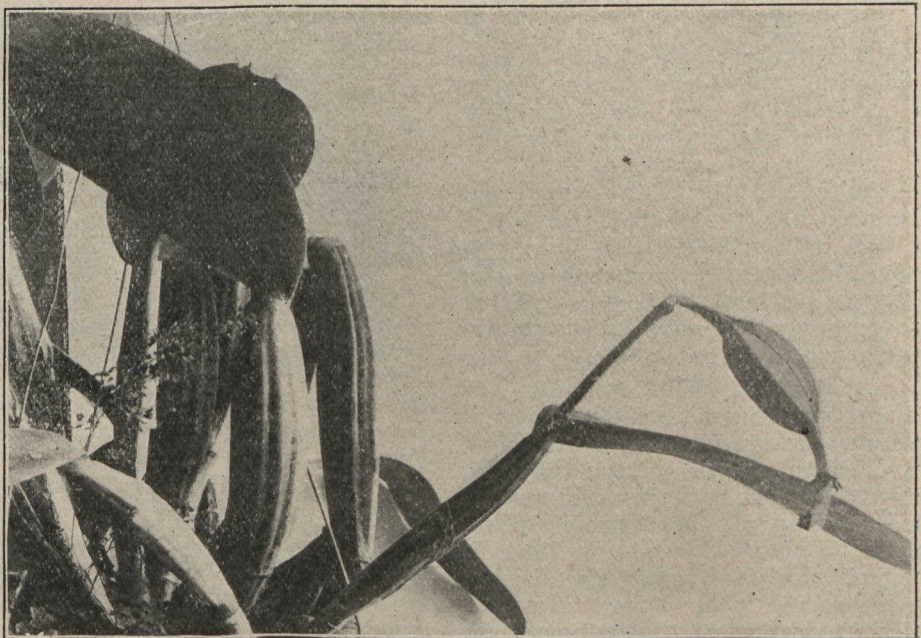
The best time to prepare the ground for a new lawn is during the fall before. Begin now. Plow or dig deeply and evenly. Drain, if necessary. By doing this now, the ground can settle before spring. Then, any irregularities in the surface may be detected and levelled.

Don't cultivate young trees or apply manure this month. Such practices encourage growth, which may be unable to withstand the cold of winter.

Orchid Growing for Amateurs

DURING the last few years no plant has risen more rapidly in the esteem of the public than has the orchid. No society function is considered complete without a display of orchids, or at least a few of them interspersed with other plants and flowers. The average amateur considers these plants too difficult to grow and as a consequence the supply in Canada has been meagre. However, the success attained by a few orchid enthusiasts and the high prices secured have caused others to begin their culture and a few years more is likely to find them more plentiful.

Chief among Toronto orchid enthusiasts is Mr. Wm. Hill, of Yonge Street. In a small greenhouse, he has a collection of some 50 varieties, including *Cattleya*, *Lælia*, *Oncidium*, *Dendrobium*, *Epidendrum*, *Cœlogyne*, *Cypripedium* and *Cymbidium*. Mr. Hill began orchid culture about seven years ago, not as a commercial venture but merely because he loved the work. His present collection shows what success has attended his efforts.



An Orchid Seed Pod

Cattleya orchids seldom go to seed in Canadian greenhouses. This illustration shows a seed pod of *Cattleya labiata* formed last fall in the house of Mr. W. Hill, Toronto. The seed will ripen and be ready to sow this fall.

"Success with orchids," said Mr. Hill, "lies with the man and the conditions under which he works. Great judgment must be exercised, and their method of culture must be adapted to the conditions under which they are grown."

"The best way for a beginner to make a start is to buy established plants and if he finds that they do well he can undertake to propagate for himself. Growers have to depend on importations from Mexico, South America, India or other tropical or sub-tropical countries, to increase their stock quickly. One of the *Cattleya* can be made to produce flowers in two or three years from root division, while if grown from seed from eight to twelve years would be required."

"In potting orchids the main object should be to have free drainage. Fern fibre and sphagnum moss is the most satisfactory potting material, but success can be had by planting them in leaf mould. The differing habits of growth and the varying climatic conditions and moisture conditions of the countries to which they are native makes it impossible to lay down strict rules regarding

watering. The amount of water supplied should be regulated according to the rainfall of the country from which specimen came. If their native country was one having a long rainy season the plants will need liberal watering.

"Most of the orchids are parasitic on trees or grow on rocks, and so do not thrive in ordinary potting soil, as such soil retains too much moisture around the roots. The watering given, too, must depend on the weather conditions and on conditions in the house. Generally speaking, orchids need less frequent watering than other plants. They do not need so much water as do ferns."

"Some varieties thrive well in house culture. Frequent spraying would be required to make the conditions more congenial, as they do best when there is moisture in the surrounding atmosphere. They absorb considerable quantities through the leaves. Those species that are terrestrial naturally require more root watering. They will stand hardships and neglect but like other plants, do not thrive under adverse conditions. Special attention after a period of neglect soon brings them into thrifty con-

dition again. The *Cypripedium* is the most common and is most easily grown in an ordinary living room. *Cattleya* and *Oncidium* also are plentiful.

THE VALUE OF ORCHIDS

"The fact that they are slow growers makes them costly. Members of the *Cattleya* family retail in Canadian stores at \$2.50 to \$10.00 each, according to the size and the number of leaves. Extra large healthy specimens realize as high as \$25. Rare varieties have sold at fabulous prices, even by auction. In England \$4,600 was realized for a single specimen. When the plants become established, and blossoms appear, however, the successful grower makes handsome returns. Single blooms sell at 50 cents to \$1.00 each, while *Oncidium* and others with few blooms in a cluster easily bring \$1.00 to \$2.50 a spray. Some varieties produce sprays with 15 to 150 blossoms on a stem."

No window collection should be without a few specimens of these beautiful plants. Their rare delicacy merits extra care and attention, and if once established they will never be discarded.

Seasonable Work in the Amateur Greenhouse

IF you have a greenhouse or a piazza conservatory, repair the benches and heating apparatus, and put it in good condition before the end of the month. There is always something to do, and the amateur florist, who is enthusiastic, never tires of doing it.

Lilium Harrisii, the Bermuda Easter lily, may be potted now. When potting, throw a handful of sand under the bulb. Place the pots in a shady place, until they make roots. *Lilium longiflorum*, the Japan Easter lily, is an excellent type for spring flowering. It is easier grown than the Bermuda lily, and is freer from disease.

A limited quantity of freesias are useful for cut bloom, and should be potted at once. They may also be grown along the edge of the benches. The foliage being small, they do not interfere with another crop grown on the same bench.

FERNS

Ferns may be successfully grown in the amateur greenhouse. Fern dishes are filled to replace on the table the garden bouquet of the summer. A good supply of these useful plants should be obtained now. Seedlings in flats will do, if of a fair size, or buy small ones in pots. Keep in a partially shaded part of the house and never allow to become dry. Moisture, and a temperature of about 65 degrees, is about all the special care they require. Do not place them on a bench

where the heat from the pipes is near the bottom. This often causes them to dry up at the roots, while the surface would indicate plenty of moisture.

CALCEOLARIA AND CINERARIA

Seeds of *calceolaria* and *cineraria* may be sown any time this month. These plants are grown to best advantage in a cool temperature. The coolest place in the greenhouse should be selected in which to place the pans. *Calceolaria* seeds are so small that they should not be covered when sown. Press the soil firmly and water from the bottom to prevent washing the seeds out. *Cineraria* seed should be covered with finely sifted leaf mould. Do not sow thickly. After the seedlings are up, keep in full light. Give as much air and keep as cool as possible.

STOCKS FOR WINTER BLOOM

Seeds of stocks should be sown at once. Princess Alice has been found to give the best results. Sow the seeds broadcast in a flat. When the seed leaves have developed, transplant into two-inch pots, afterwards shift into four-inch pots, in which they may be flowered. When the first bloom is forming the plants may be transplanted to the bench to remain for the season. By waiting until the flowers are forming, the doubles can be selected and the single plants discarded.

SWEET PEAS FOR CHRISTMAS

Sow the pink Christmas and the white Miss Florence Denzer sweet peas

in the first part of September, three to five seeds to one square foot in the bench. If not room ready this time, sow in four-inch pots outdoors, but never allow to become pot bound. When three or four inches high, plant inside one square foot apart, in good compost soil. Keep moist steady. Give as much air as possible. The temperature should be 45 to 50 degrees at night, 55 to 68 in the daytime. These sweet peas, if attended well, will bloom from Christmas to late in spring.

CARNATIONS

We would not advise amateurs to undertake the culture of carnations, either in the house or the amateur greenhouse. The results usually are unsatisfactory, and disappointment follows. Some enthusiasts, however, are occasionally successful. Carnations that have been outside all summer should be potted the first of the month. Use small pots, pot firmly, water well, and shade. Spray the foliage until the plants become well established; then give plenty of sun and spray every sunny day. Water the plants only when the soil shows the need of it.

Shower the plants occasionally to keep off the red spider.

Few plants do well in a north window. But palms, the *aspidistra* and ferns will flourish there, if particular attention is given to watering.

The Cut-leaved Birch

W. T. Macoun, C.E.F., Ottawa

THE cut-leaved birch is one of the most handsome and graceful of ornamental trees. It is perfectly hardy, and appears to succeed equally as well in the province of Quebec, along the lower St. Lawrence, as in Ontario. Even in Manitoba it thrives well, and may be seen on many a lawn in the city of Winnipeg. It is especially desirable owing to its rapidity of growth, there being few hardy ornamental trees which equal it in this respect. It is of very graceful habit, the pendulous branches giv-

ing the tree a soft outline, both in summer and winter. The leaves are deeply cut and attractive in appearance, and begin to develop very early in the spring, a few warm days bringing them to view. It does not live as long as most trees, but its beauty may usually be enjoyed for 30 or 40 years, or longer. The tree at the Central Experimental Farm, Ottawa, from which the accompanying photo was taken, was planted in 1889, when only six feet high. It is now 40 feet in height.



A Grand Lone Specimen of Cut-leaved Birch

Reproduced from a photograph by Mr. F. L. Shutt taken at the Central Experimental Farm, Ottawa

Branching a Rubber Plant

How should a rubber plant be treated to branch it and make it grow tree-shaped?—M. B., Whitby, Ont.

A tree-shaped rubber plant may be produced by heading back the main shoot at any desired height while it is in a free growing condition. The best shaped plants, however, are obtained only by natural branching. The way to induce

rubber plants to branch, without the intervention of topping, is to rest them. In the spring keep the plants dry for about two or three months and then plant them in the open or re-pot them. Give lots of fertilizer and plenty of water. When the plants start into growth they will commence to "break"; i.e., produce branches naturally from the axils of the leaves.

The Castor Oil Plant

In beds for tropical effect on the lawn, there is no plant that excels the ricinus, or castor oil plant, for rapidity of growth and grace of foliage. Used either as a specimen plant, with cannas,



Castor Oil Plants in Woodstock

caladiums, or in masses, or as a screen, it gives satisfactory results. Its immense leaves have a rich metallic lustre, and gives the plant a stately appearance.

The castor oil plants in the illustration were grown last year on the beautiful grounds of Mr. J. D. Patterson, of Woodstock, Ont. According to Mr. Thos. Shrimpton, the gardener in charge, the plants came from seeds of *Zanzibarensis* and *Borboniensis* mixed. The seeds were started the first week in April, and transplanted about June 10 to the south side of the residence. In preparing the bed it was dug about four feet deep, and made up of good rich earth and cow manure. It was watered every evening with a copious supply, and about once a week with manure water. The plants grew eight inches after the photo was taken.

Animal and Plant Diseases

Francis Wayland Glen, Brooklyn, N.Y.

Some readers may think that my theory that there is an intimate relation between the contagious diseases which attack man and animals and those which attack plants and trees is chimerical, but there are scientists in Europe and America who have been seeking for years for some cure for cancer in mankind, and one of them, in Sweden, found on a cabbage plant a structure exactly like the cancerous growth on man. He at once inoculated some mice with it and produced cancer in the mice, from which they died in due time. Other animals were inoculated and the same result followed. A

toxin has been discovered that will cure the mice, and it is anticipated that the toxin can be so adjusted as to cure cancer in human beings. These and other experiments of a similar nature show that diseases in man, animals, plants and trees are intimately connected and related.

My mother said to me when a lad working in the garden: "You cannot cheat a cow, hen, hill of corn, or a fruit tree." She said that there was a law

common to animals and plants. The roots of a tree are its stomach, where it takes in food and digests it. The leaves are its lungs, where it takes in that which gives life to its sap or blood. The tree must have healthy leaves just as a man must have healthy lungs. The trees in our streets are gradually dying because insects destroy their leaves by midsummer. They have less and less vitality each year, and finally die as a person, with consumption, or

are winter killed because too feeble to resist the cold.

The doctors will organize a new profession and can render most beneficent service to the lover of trees, fruits and vegetables. We must learn to treat young trees and plants like children, study their habits, likes and dislikes, temperament, needs, appetites and ailments, and find remedies for their illnesses. They are more human than many of us realize.

A Day with Market Gardeners

EARLY in August, an editorial representative of THE CANADIAN HORTICULTURIST accompanied Prof. R. Harcourt, of the Ontario Agricultural College, Guelph, on a short trip to the market gardens of Humber Bay and Weston, near Toronto. The main purpose of the trip was to observe the behavior of certain fertilizers, sent early in the season by Professor Harcourt to different vegetable growers for experimental work with various kinds of vegetables. In a later issue of THE HORTICULTURIST these and subsequent observations on fertilizer experiments will be published. At the time of the trip, it was too early to record results sufficiently accurate for publication.

The scope of the cooperative experiments with fertilizers, as conducted by Professor Harcourt, embraces work with various fertilizers on tomatoes, potatoes, onions, celery and other crops. Should results show that fertilizers can be used profitably as a partial substitute for barnyard manure, the work will be valuable. On the other hand, should the application of these fertilizers show no results of value, the experiments will be considered by growers as failures.

One of the growers visited has had, so far, no results. Already he is condemning the use of fertilizers, going so far as to say that fertilizers are no good, and that he would not pay a penny a pound for them. This man is a skilful gardener; the general appearance of his crops show it. Yet, he is condemning fertilizers as *no good*. There is a reason for it.

The long-continued use of large quantities of stable manure on market gardens near large cities, has made the soil unresponsive to the action of nitrogenous fertilizers. In the Humber Bay district, manure is used at the rate of 75 to 100 tons an acre. The soil is excessively rich in organic matter and in nitrogenous constituents. A soil over-rich in nitrogen does not require a commercial nitrogenous fertilizer. Such is the condition of affairs on the gardens of Humber Bay.

THE USE OF FERTILIZERS

Before a market gardener can economically invest much money in fertilizers, and before he can intelligently apply such to his soil, it is essential that he consider the value and use of fertilizers from all viewpoints. Soils vary widely in their demand for fertilizers. Gardeners cannot afford to use commercial fertilizers at random; it is time they knew the reason why.

Artificial fertilizers, rightly used, are a potent means of restoring the fertility of soils deficient in one or more elements. They are of value also to start off the plants quickly in the spring. The plant food is available, and acts at once.

For general use, it is usually advisable to use one of the so-called complete fertilizers. If a luxuriant growth of stalk and foliage is wanted rather than roots and fruit, an application of nitrogen in some form usually is advisable. On the other hand, if a soil is producing stem and leaves at the expense of fruit, nitrogenous fertilizers should be used sparingly and supplemented with potash and phosphoric acid.

On some of the gardens visited by Professor Harcourt, tomatoes were going too much to vine; the crop of fruit not only is lessened but also it is retarded in ripening. Rapid growth of vine, due to an over-supply of nitrogenous manures, such as that from the stable, retards the maturity of the crop and, as a result, the advantage of an early-market price is sometimes lost. Further experiments will be conducted by Professor Harcourt to determine the practical value of this well-known theory.

A POINTER ON BEETS

Besides the fertilizer question, other items of interest to gardeners were noted by the representative of THE HORTICULTURIST. On the grounds of Mr. J. W. Rush, Humber Bay, who kindly drove Professor Harcourt and THE HORTICULTURIST man from one farm to another, a method of growing beets was noted that may be worth

more general practice. Instead of thinning out the beets to five or six inches apart, as is often done, they are sown thickly and not thinned at all. By so doing they grow more tender and smooth. Continual cropping is scarcely perceptible, as the growth of the beets fills up the spaces made by the removals. By this means an enormous quantity of beets can be harvested from an acre. It should be noted, however, that this method can be followed only on very rich soil.

PLANTING EARLY POTATOES

Early potatoes are planted by Mr. Rush on the level. They are planted as soon as the weather is settled, about April 15 to May 1. By planting them only one and a half inches deep, larger and earlier potatoes are secured.

WHEN TO PLANT CAULIFLOWERS

It was pointed out by one of the gardeners visited that cauliflowers should not be planted too early. Experience shows that cauliflowers planted about May 1 are very unsatisfactory in growth; about May 15, only fair; while those planted about June 1 are always the best. For prime heads, the plants should grow quickly, but the heads should form slowly. When heading, best results are secured when the weather is cool.

ONIONS

Many fine onion beds were seen. Mr. Wm. Harris, Mr. Aymer and others have large crops of good quality. The ground is light, well pulverized, well cultivated and rich. The leading varieties are grown, such as Prize Taker, Yellow Globe Danvers, Southport White Globe, Dutch Sets, Barletta, etc.

Speaking of marketing onions, Mr. Rush said that there should be a definite trade bunch in all parts of the country. Bunches of six each would be better than bunches of three. Such a trade bunch, universally adopted, would do away with confusion that now exists in market reports from the different onion districts.

SOME MARKET GARDEN TROUBLES

Garden crops are subject to the depredations of many insect and fungus

pests. Every year a certain amount of damage is done, and in occasional years, serious loss. A very troublesome insect in Humber Bay and vicinity is the cabbage-maggot. It is difficult to deal with Cabbage sometimes overcome the attack; cauliflower never. Many remedies have been recommended, but none are certain. The maggot is best controlled by preventing the laying of the eggs by means of a repellent. Preventatives in the form of mechanical obstructions, the placing of tobacco dust about the stem of the plant, the application of an emulsion of crude carbolic acid and others have been suggested, but where these crops are grown on a large scale, they have not proved practicable. There is work along this line for our experiment stations.

The onion-maggot is another dreaded enemy of garden crops. It is a near relation of the cabbage-maggot, and works similarly. Up to the present time no efficacious remedy has been discovered. Dusting hellebore or lime, and spraying with soap washes, kerosene emulsion and other insecticides have been tried, but the maggot usually wins out. Here again is a chance for further investigation.

A Michigan farmer states the following experience: "I have found a practical and effective method to get rid of onion maggots. It is to sow bone black fertilizer broadcast over the onions every seven or eight days until the little thrips or green flies leave. The fertilizer does not kill the flies but simply is obnoxious to them and causes them to discontinue their visits to the onions. The writer has not been bothered with this pest since he began using this remedy in 1901. Besides preventing the destructive work of the maggots the fertilizer more than pays for the trouble and expense of applying it in producing a better yield of onions."

Blight on the celery and on onion is quite prevalent in vegetable districts. The latter is difficult to combat. Many growers near Toronto have tried various remedies, notably Bordeaux mixture, with disappointing results. In some cases onions sprayed with Bordeaux are badly affected, while patches immediately adjoining and unsprayed are comparatively free from the disease.

FORCING RADISHES

On the truck farm of Mr. Thos. Delworth, of Weston, an interesting discussion took place on the methods of forcing radishes in greenhouses. It was pointed out that the seed should be sifted and only the largest used. The seed will come quicker and more even. Many small seeds may produce as good radish at maturity as the others, but they take a longer time to grow. Grown

inside, they are apt to become spindly. It is important to have all the radishes attain marketable size at the same time. This can be accomplished only by having the seed even in size. And, to hasten maturity, only large seed should be used. Reject all seeds that will pass through a sieve with a mesh one-twelfth of an inch in diameter.

Most gardeners sow the seed in drills thickly and afterwards thin to the desired distance. Mr. Rush practises another method that he claims is better. It produces a more even crop, and tends to prevent mildew and other diseases. Holes for the seeds are made every three inches in rows the same distance apart. Three or four seeds are dropped at each of these points. No thinning is necessary.

SOME PROPOSED EXPERIMENTS

To demonstrate the action of fertilizing elements, singly and in combination with each other, on radishes, Professor Harcourt purposes to undertake some experiments. The work will be conducted, not for the purpose of presenting anything new, but simply to serve as object lessons. Many gardeners hear and read about the action of the various elements on different parts of a plant, and are not convinced. It was suggested to the professor that a bulletin or pamphlet on this subject, dealing with actual experiments at Guelph, and well illustrated with cuts showing the results, would be of great value to market gardeners, experienced men and novices alike. It would be convincing. Seeing is believing. Should the experiments result in the discovery of anything new, respecting the action of fertilizers, their value will be still greater. We shall follow the work with interest.

MUSHROOMS

In the minds of some persons the culture of mushrooms is surrounded with mystery. Mushrooms can be grown, they think, only by the man who knows the secrets and possesses the charm. The business is not for the ordinary gardener. These ideas of the growing of mushrooms are wrong. They are the result of failures on the part of some men who have made the attempt; and they are due, also, to a certain amount of quackery that is practised by some of the men who have been more or less successful. One grower we know, who lives not far from Toronto, told a dozen persons this season that his success with mushrooms is due to a chemical he uses, and which was suggested to him by a tramp. These are some of the reasons for the degree of mystery that enshrouds the very idea of producing mushrooms. But, when the situation is examined, the mystery vanishes. While the cultivation of mushrooms is often attended

with uncertainty, there is no secret about it, nothing more than the secret of careful attention to details, the exercise of skill and good judgment.

Among the men who grow mushrooms successfully, and who have no methods in obscurity, is Mr. Delworth. He grows the mushrooms under the benches of his lettuce house. Recently Mr. Delworth harvested, at one cutting, 11 $\frac{3}{4}$ pounds off of 280 square feet of bed. The manure for the bed is selected with care. It must be good, neither fire-fanged nor rotten. Before using, it is turned every day for eight or nine days. Fire-fanged manure will produce no mushrooms.

The prepared manure is mixed with soil and packed by layers into beds, 9 or 10 inches deep, evenly and firmly and left smooth on the surface. When the temperature falls to about 85 degrees, pieces of brick spawn are put in about two inches deep and 10 inches apart. The surface, again, is firmed and smoothed.

Muskmelons for Market

W. G. Horne, Clarkson

There are two varieties of melon that, if grown and put on the market in the right condition, would be as much sought after for dessert or eating from the hand as the Early Crawford peach—they are the Rocky Ford and Paul Rose. The conditions in which they should be placed on the market are: first, never ship a melon until it has properly ripened; second, never ship a melon that has ripened on a dead or injured vine; third, ship them in a proper protective package, one that will stand being pitched about like so much stove wood. No discrimination is shown in handling packages by the express companies, whether the contents are of a tender and soft nature, or hard. Follow these directions and you will be surprised at the market that can be made, and a paying one, too, by growing melons in the right way.

Vegetable Notes

Study the peculiarities of the market.

The squash bug dislikes clean culture.

Mineral fertilizers are unfavorable to insects, and to some they are deadly.

When marketing vegetables, no individual of inferior value should be bunched or put up.

A compost heap, which should be started now, is like a penny savings bank. Every little helps to increase the aggregate.

I prefer solid to raised benches in the greenhouse because it does not take very long to run away with much of the profit from the crop if new benches have to be made frequently. Lumber is very expensive.—H. E. Reid, Toronto.

Directions for Preserving Fruits and Vegetables

THE proper preservation of fruits and vegetables for winter use is an important question for the housekeeper. A bulletin on this subject, recently issued by the Wisconsin Experiment Station, contains many useful recipes and suggestions. While the recipes were worked out largely with native fruits, they will apply equally as well for preserving the domestic varieties of Canada. The following extracts may be of value to the lady readers of THE HORTICULTURIST:

It is important that the fruit intended for canning should be in the right stage of ripeness; it should be firm, having attained its full size and normal color. It should be free from all kinds of blemishes, such as scab, rust, rot, and all forms of insect life. Fruit intended for canning in any way should be utilized as soon as possible after it is picked. If left standing for hours, even if the fruit is not over-ripe, the fine flavor is lost and the keeping qualities greatly impaired.

SELECTION AND PREPARATION

In selecting fruit for canning, it is advisable not to mix the different varieties together; for example, if plum preserves are made, each lot should be made from a distinct variety, or a combination of flavor will be the result, besides some varieties require more heat than others, thus giving the preserved product a lack of uniformity. To insure success in putting up fruit, a few precautions must be observed; namely, fresh perfect fruit, absolute sterilization of all utensils, the best grade of sugar, and other materials used.

NOTES ON MAKING PRESERVES

When fruit is put up by the oven method, either cover the oven with heavy asbestos paper and cover the jars with the same paper, or place the jars in a dripping pan with a little cold water in the pan, and place a pan over the jars, as the fruit cooks faster in the top and may turn a little dark if not covered.

In making preserves, different fruits require different amounts of sugar; if a heavy syrup is wanted and no syrup gauge is at hand, use just enough water to liquify the sugar and heat very slowly as sugar often crystallizes in the bottom of the jar, if boiled rapidly, and the fruit will not be sweet enough. In making syrup, when it begins to boil, run a wet cloth carefully around the edge of the pan, to take out the impurities in the sugar, leaving the syrup clear.

A good way to prevent moulding and improving the general keeping qualities of preserves is to cut out circular pieces of paper to fit over the preserves. Be-

fore placing it over the preserves dip in melted paraffin and on top of this paper pour melted paraffin, making a layer an eighth of an inch in thickness. Paraffin may be obtained at any drug store and is both cheap and effective.

DIRECTIONS FOR MAKING JELLY

Fruit for jelly is best gathered a little unripe. Jelly made from fruit gathered after a heavy rain will require a greater amount of boiling, and in some cases will not "jell" at all, owing to the lack of the starchy properties contained in fruit. This, however, may be put into jars and sealed and used for mince meat.

Great care should be used in skimming jelly. The juice should not be stirred, but the scum skimmed off carefully. If allowed to boil over, the jelly will not be clear.

In putting the jelly into glasses, sterilize the glasses, and drain them thoroughly; otherwise, air bubbles are apt to be in the jelly. When filling, fill each glass full before attempting to fill the next, as jelly will slide off in layers when turned out if put in a little at a time. Boil only a small amount of juice at one time, and use a shallow pan, as the water evaporates faster in a shallow pan, allowing the juice to "jell" in less time. Some people think that fruit that is not fit to can or preserve is all right for jelly, but this is not true. Perfect fruit is more essential for jelly than any other way of caring for fruit. Soft ripe fruit may be used for jams or marmalades.

Fruits such as strawberries, raspberries, peaches, which will not jell easily, make beautiful jelly if one-third rhubarb juice is used and the flavor is not harmed by such addition.

NEW WAY OF MAKING PLUM JELLY

A new way to make plum and other jellies, is to place the fruit dry in jars. Two-quart jars are good. Either place the jars in the oven in asbestos paper or in a fruit steamer and cook till fruit is tender. Take out and strain through a flannel bag. Add as much sugar as juice, and stir until the sugar is dissolved. Place on the back of the stove and heat slowly until it forms jelly drops on the spoon. During boiling skim carefully. It will take but a little boiling as this is pure juice. This process produces the clearest and finest plum jelly.

The pulp may be used for jams or butter by straining through a sieve and adding equal amount of sugar and heating slowly till thick enough. Place in jars and seal as usual.

MAKING APPLE JELLY

Cut the apples into quarters. They should not be cored or peeled. Cover with water and cook till tender and strain. Let stand an hour or more and

strain through a flannel bag. Measure out the same amount of sugar as juice, boil the juice fifteen minutes before putting in the sugar. Stir until the sugar is dissolved and boil slowly till it jellies in a spoon. Plum juice may be added if a plum flavor is desired. Apple jelly often lacks a decided flavor and this can be enhanced by adding a small quantity of plum juice.

CURRENT JELLY

Wash and mash the fruit well, let stand a little while and strain. Put the juice in a stone jar and place in the coolest part of the cellar for 24 hours. Then remove the scum which will form on top, strain through a flannel bag and measure pound for pound of sugar and juice and stir till the sugar is dissolved. Put in glasses and seal. In 24 hours you will have a perfectly transparent jelly. No heat is required.

MAKING PLUM PRESERVES

Plums are always nicer peeled and it is easily done by placing the fruit in boiling water for a minute or two, then pouring on cold water. The skins will then slip off easily. If plums are to be canned with the skin on, either prick each plum with a darning needle or cut one side to the stone so that they will stay whole. Some varieties require more sugar than others.

CANNED PLUMS

Make a syrup by using pound for pound of fruit and sugar, or less sugar if not so rich a sauce is wanted. When the syrup is boiling add the fruit. Cook till tender, and carefully remove the fruit and place in jars. Fill up with the syrup and seal.

BAKED PLUMS

Sort the fruit, wash and let dry, then put the fruit into sterilized jars and place the same in the oven which should be lined with asbestos paper. Cook till the fruit looks clear, not soft. Open the oven door carefully so as not to let the cool air in suddenly as it may break the jars. Lift the jars out, place the rubbers on, fill with the boiling syrup and seal hot.

STEAMED PLUMS

Treat the fruit the same as in the foregoing recipe, only place the jars in a steamer and steam till tender, fill with hot syrup and seal.

(Continued next issue)

To see your hands in a basin of water at frequent intervals when peeling fruit for canning or preserving is a sign that you have your share of that which is next to godliness.

OUR QUESTION AND ANSWER DEPARTMENT

Readers of *The Horticulturist* are invited to submit Questions on any phase of Horticultural work

Marking Apple Barrels

In the recent amendments to the Fruit Marks Act, were the XXX, XX and X marks done away with?—D. H. W., Trenton, Ont.

No. Any number of X's may still be put on a barrel, but the No. 1, No. 2, or No. 3 mark has been made obligatory. It is absolutely necessary that one of these marks or "Fancy," which has been defined, be placed on the package of fruit.

Fall Planting of Strawberries

Do you advise planting strawberries in the fall?—R. A. B., Renfrew, Ont.

No. Strawberries planted in the fall do not make enough new plants to produce even a normal crop the next year. Plant strawberries in the spring, remove all blossoms that season, and in one year from planting an abundant crop may be expected.

Beer's Late Peach

Is Beer's Late a profitable peach for market purposes?—M. W. F., Essex, Ont.

Beer's Late is practically the same as Crawford's Late, which is well known as a fair commercial peach, but not grown so much now as formerly.

Crimson Ramblers

I have a Crimson Rambler that has grown very ugly. There are two long limbs with a few leaves at the top. The few flowers that come are insignificant, not larger than a button. Can it be made healthy and vigorous?—M. N., Toronto.

When a Rambler becomes as unruly as this, probably the best treatment is to cut it out and replace with a new vine. A less heroic measure, however, would be to prune back the limbs to within a few inches of the ground. Do this next April, just before the buds start. This fall apply a heavy mulch of manure and in the spring dig it in. During the summer months, a Rambler needs a lot of water, overhead and at the foot. As fall approaches the waterings should be stopped gradually, thus bringing about a normal and thorough-going process of ripening.

Rose Insects

Kindly advise what remedy to use for the little insects that are eating the leaves of my rose bushes? The vitality of the bushes seems to be much impaired.—J. McK., York Co., Ont.

Two kinds of insects are prevalent on roses in this country; the rose chafer and the rose leaf-hopper. The rose chafer is difficult to combat. The best treatment is to gather them daily by hand, tossing them into a vessel containing a little coal-oil; or jar them off

the plants into a funnel-shaped collector so made as to roll them through the centre into a pail containing kerosene. The arsenical poisons are too slow in their action, and contact remedies must be applied too strong for the plants to kill the insects.

The leaf-hopper may be kept off the bushes by a forceful spray of clear water applied early in the day or again at evening. Those without the facilities for spraying with water may use kerosene emulsion, applied with an old broom, or insect powder dusted on the plants when they are wet.

Tussock Moth on Trees

A caterpillar is ruining my horse-chestnut trees. Is it the Tussock Moth? Please describe it, give its habits, and suggest remedies.—Mrs. M. N., Toronto.

The larva of the common Tussock Moth (*Notolophus leucostigma*) is one of the worst enemies of horse-chestnut, basswood, and other shade trees. In Toronto, the species is very destructive. The caterpillar, about one inch long, is easily identified by the following markings: Bright red head, resembling sealing wax, just behind which is a conspicuous coral red mark; and yellow body, bearing four white brush-like tufts, and a wide black band on the back, two long black plumes near the head and one at the anal end.

The most important points of economic importance in the life-history of this moth is that the female is absolutely incapable of flight; the insect winters in the egg stage; no eggs can be laid upon a tree until a caterpillar has first made its way upon it, and has changed to a female moth. Herein lies the suggestion for a remedy.

During winter remove all the egg masses, which are easily found, and destroy them. In Toronto, it lies altogether with the civic authorities to stamp out the pest. Professor Lochhead suggests that bonuses be offered to children for every egg cluster collected. Second, prevent the caterpillars from crawling up the tree from surrounding points by means of a bandage around the trees. Any substance, sticky or otherwise, that will arrest the march of the caterpillar, will answer the purpose.

Fuchsias for Winter

Is the fuchsia a good house plant for winter?—R. M. A., Barrie, Ont.

Fuchsias are not good winter plants for the house. One or two varieties, notably *speciosa*, will succeed fairly well

in winter with special treatment. Spring and summer is the proper season for fuchsias to flower. They should be rested, or kept dormant in a cool room or cellar, during winter, in a temperature of about 40 degrees; then brought out about April, and re-potted as soon as they show signs of growth.—Answered by W. Hunt, O.A.C., Guelph.

White Grub in Lawn

The grass on my lawn is turning brown in spots. In taking up the sod, it comes up in sheets, the roots being eaten off. What is the best course to pursue?—E. F. W., Amherst, N.S.

The trouble is due to the larva of the May beetle or June bug. Many lawns are ruined by this pest. Robins are fond of the grubs. If a part of the sod is turned every few days, robins will devour many of the grubs. It is said that an application of a fertilizer (kainite, 3 lbs.; nitrate of soda, 1 lb., to sq. rod) will make the soil distasteful to the pests. Re-seeding may be necessary. This may be done in September, but spring is the best time.

Shipping Tomatoes

Has any attempt been made to ship tomatoes to Great Britain, and if so, what were the results?—M. J. L., Prince Edward Co., Ont.

The only attempt of this kind that we know of was made some years ago by Mr. A. W. Peart, of Burlington, Ont., who made trial shipments for three years in succession. Each year Mr. Peart sent four boxes that held two 12 qt. baskets each. The first year he obtained \$1.44 a box, on which the total transportation and other charges amounted to about 60 cents, thus netting him a nice margin of profit. The second year the tomatoes were decayed when they reached the consignee, and the shipment was a failure. The third season, the tomatoes were in a yellow condition when they reached their destination, and sold for 48 cents. The results of the two last years' shipments were so disappointing that Mr. Peart became discouraged and decided not to make further shipments until the cold storage and transporting facilities were better adapted for the shipping of these fruits such a distance. The variety shipped by Mr. Peart was the Honor Bright. There has been such improvement during the past few years in the cold storage facilities for shipping perishables of this nature that the time seems ripe for further experiments.

Use lime water for worms in potted soil.

The Canadian Horticulturist

Published by The Horticultural
Publishing Company, Limited

The Only Horticultural Magazine
in the Dominion

Official Organ of British Columbia, Ontario, Quebec
and Prince Edward Island Fruit Growers'
Associations and of the Ontario Veg-
etable Growers' Association

H. BRONSON COWAN, Editor and Business Manager
A. B. CUTTING, B.S.A., Associate Editor
W. G. ROOK, Advertising Manager

GREAT BRITAIN

FRANK FLETCHER, 135 Henrietta Street, Old Trafford,
Manchester, Eng., Advertising and Circulation Manager.

1. The Canadian Horticulturist is published the first
of every month.

2. Subscription Price 50 cents a year, three years \$1.20,
strictly in advance. For all countries except Canada,
United States and Great Britain add 50c. for postage
for each one year subscription.

3. Remittances should be made by Post Office or Money
Express Order, or Registered Letter. Postage Stamps
accepted for amounts less than \$1.00.

4. Discontinuances—Responsible subscribers will con-
tinue to receive THE HORTICULTURIST until the publishers
are notified by letter to discontinue, when all arrearages
must be paid.

5. Change of Address—When a change of address is
ordered, both the old and the new addresses must be
given.

6. Advertising Rates quoted on application. Circu-
lation 5,500. Copy received up to the 23rd. Responsible
representatives wanted in towns and cities.

7. Articles and Illustrations for publication will be
thankfully received by the editor.

8. All Communications should be addressed:

THE CANADIAN HORTICULTURIST
507 and 508 Manning Chambers
TORONTO, CANADA

A GREAT NATIONAL ORGAN

In pursuance of our declared intention to make THE CANADIAN HORTICULTURIST a paper of national influence and of international renown, we hereby announce an important change in policy. In future the regular subscription price will be 50 cents a year instead of one dollar a year. New or renewal subscriptions will be accepted for periods of three years for \$1.20. This means that our regular price for yearly subscriptions has been cut in half, and that the reduction, in the case of three year subscriptions, is even greater. In spite of this great drop, it is our intention to not only maintain the present standard of the magazine, but to further improve it in several important respects.

The decision to lower the price of subscription was reached unanimously at a meeting of the shareholders of the Horticultural Publishing Company held early in August. It was the feeling of all present that it would be better to obtain a circulation of 10,000 to 12,000, within the next couple of years, at the 50 cent subscription rate, than to have a circulation of 5,000 to 6,000 at the one dollar rate.

The facts are these: Most of the leading fruit, flower and vegetable growers of Canada are already subscribers for THE CANADIAN HORTICULTURIST. These men have not hesitated to pay one dollar a year for the magazine, and have considered it cheap at the price. On the other hand, there are thousands of people in Canada who are interested in horticultural matters in only a small way. These include thousands of farmers with three to ten or more acres of apple orchards as well as many people in cities, towns and villages who are growing flowers on an amateur scale. But few of this class of people are now taking the paper. We desire to reach them also.

Experience has demonstrated the fact that these people will not pay one dollar a year for a magazine that is published only once a month. It is necessary, therefore, if their subscriptions are to be gained and retained: first, that we shall offer THE HORTICULTURIST to them at a price that will lead them to subscribe; and,

second, that the quality of the paper be such that they will be glad to renew their subscriptions when they expire. It is this that we intend to accomplish.

In adopting these new subscription rates we are following a policy that has proved successful with the leading fruit papers of the United States. The *Western Fruit Grower* and the *National Fruit Grower*, both of which are monthly fruit papers, having a circulation each of over 35,000, both built up their subscription lists by accepting subscriptions at the rate of 50 cents a year and at still lower prices for long term subscriptions. The *Southern Fruit Grower* and *American Fruits*, two other well-known United States publications, are circulated on the same basis. We have decided, therefore, that THE CANADIAN HORTICULTURIST shall not be outdone by the fruit papers in the United States. Instead, its circulation will be pushed on the new basis from one end of the Dominion to the other, until we have built up a subscription list that will make the magazine not only a decided financial success but one of great influence and power.

The growth of THE CANADIAN HORTICULTURIST during the past five years has been phenomenal. No other magazine in the Dominion has made more rapid progress. Not only has it been doubled in size, but for five years in succession its receipts from advertising have doubled each year. This progress has been most gratifying to the management. The only point in which improvement has been slow has been in that of circulation. On the new subscription basis it is believed that the solution of this difficulty has been found. A bright future for the magazine, therefore, is anticipated.

At the shareholders' meeting it was decided that to enable the making of further improvements in THE HORTICULTURIST, and to permit of an energetic subscription campaign, it would be well to issue \$10,000 more stock. A considerable portion of this stock was subscribed at the meeting. The remainder will be reserved for one month to give the present shareholders an opportunity to increase their holdings, after which the balance, if any, may be offered to our readers.

The fruit industry of Canada, during the past few years, has shown phenomenal development. The next few years promise to show even greater progress. New markets are opening in the west with great rapidity. The in-rush of population is so immense that the consuming capacity of our eastern centres is showing a marked increase. The better standing of our fruit in the British markets, and the improved cold storage arrangements on our railway and steamship lines, will greatly extend the European outlet. All this means that Canada needs a live, aggressive paper dealing with horticultural matters, and it is our aim to fill this need by means of THE CANADIAN HORTICULTURIST.

A NEW COOPERATIVE MOVEMENT

The organization of an Ontario Cooperative Fruit Growers' Association is an event of more than ordinary import. It marks another step in the movement that is helping to obtain for the growers full value for their crops. Being founded on a strictly commercial basis, it will assist the local cooperative associations to eliminate many of the evils that beset the Canadian fruit trade.

One of the greatest of these evils is the irresponsible buyer. Every year many growers are defrauded by sharpers. They sell their fruit to men who have carefully and deliberately laid plans to rob them. These men buy as many barrels as they can secure, making only a small advance payment, ship them to the Old Country, and go back to the grower with tales of disaster, injury in transit, a glutted market and others equally false. The grower is forced to accept whatever he can get, because, unfortunately, he can get no redress. The

buyer is irresponsible; he has no property in the section by which the grower can obtain recompense. The buyer, rejoicing in the ease with which it was done, moves off the next year in search of a new field to exploit.

There are other defects in the condition of our fruit industry. Having no storage facilities, growers, acting individually, are forced to rush their fruit to market. This tends to glut the market and the grower suffers. He should be in a position to obviate this feature of the trade, but he is not, so long as he acts alone.

The individual grower seldom has fruit in sufficient quantity to warrant responsible buyers visiting him. The fruit may be good and well packed, but, as no two men in a locality have equal ideas on what constitutes a correct pack, the packing of fruit in such a locality is not uniform. Buyers know this, and steer clear of such localities, or gather in the fruit at ridiculously low prices.

Even when buyers do visit him, the individual apple grower is, as a rule, at his mercy. Having little or no definite information regarding the condition of the market and of prices being paid, the grower, generally, is forced to accept what is offered. Frequently apples that net the grower \$1.50 a barrel, sell on the market for five, six or seven dollars. Between the grower and the consumer there is a line of middlemen that appropriate to themselves the profit that proper management would bring to the growers. Some of these middlemen should be eliminated.

These are some of the evils that cooperation is helping to overcome. Cooperative associations, usually, have large quantities of fruit at their disposal. This enables them to store their fruit when it is advisable to do so, to sell direct to responsible firms and to demand cash for every sale made. They are in a position to put up and offer a uniform pack, and to ask a high price for it.

The cooperative movement in Ontario is of recent origin, but it has shown wonderful advancement. This year one-tenth of the crop of the province will be handled by the cooperative associations; five years ago, it is doubtful if 5,000 barrels were put up in this way. The increased interest is due to the soundness of the principle having been demonstrated by the larger profits that have been realized on fruit thus handled.

A number of the cooperative associations in Ontario have been eminently successful. At first they found no difficulty in disposing of their crops. More recently, through lack of cooperation between them, their salesmen have competed against each other, and prices thereby have been affected injuriously. This has shown the need for still another and a more advanced step in the cooperative movement—namely, cooperation among the cooperative associations. This now has been accomplished. In future, instead of several associations sending salesmen to the west or to Great Britain, and where possibly they might compete with each other, the central organization will be able to send one man, who thus will be able to maintain prices. In the past the local associations have had no means of knowing what the other associations were asking for their crops, or the prices being paid in the different sections. Through the new provincial organization each association in future will be kept informed in regard to the prices prevailing in the other parts of the province. Through the influence of the newly organized Provincial Association, the larger associations now will be able to help the smaller, and therefore, weaker, organizations.

The value of the Ontario Cooperative Fruit Growers' Association will be far-reaching. Other provinces may fall in line. British Columbia, for example, has a number of local associations. It is probable that she will follow the example of Ontario and organize a provincial organization. Thus will be welded

another link in the chain that ultimately will bind, as one, the fruit growers of Canada from the Atlantic to the Pacific.

A CHANGE NEEDED

The feeling is growing that the constitution of the Ontario Fruit Growers' Association should be revised. It is felt by many representative growers that the present method of electing the board of directors is not altogether satisfactory. They desire to see some arrangements made by which the fruit growers in the different parts of the province will have more say in the election of the officers that are supposed to represent their districts. As this is a matter that, probably, will be discussed at the annual convention next November, a few words at this time should be in order.

In the first place objection is taken to the directors all being elected at the annual convention. The expenses of the directors, while attending the convention, are paid by the association. This enables them to re-elect themselves into office year after year, practically without opposition, as concerted action by the other fruit growers present is difficult. As a rule the number of fruit growers who attend the annual convention from outlying points is limited; the result is that the rank and file of the growers in the different sections of the province have no say in the election of the directors on the board of the Ontario Fruit Growers' Association who are supposed to represent their districts. The fact is, there are very few fruit growers in Ontario who know who is their representative on the board.

Some years ago, when the horticultural societies of the province and the fruit growers' association were affiliated, provision was made by which the horticultural societies were to be represented on the board of the fruit growers' association. This arrangement is still in force, although all connection between the association and the societies has been severed. The directors of the fruit growers' association include some first-class men, who, however, represent the horticultural societies more than they do the fruit growers of the province. Now that there is an Ontario Horticultural Association, representing the horticultural societies, it would seem as if these men would be in a position to do better and more valuable work were they identified with the latter organization rather than with the fruit growers' association.

At the last convention of the association, the constitution was so amended as to provide for the affiliation of the members of the local cooperative fruit growers' associations with the Ontario Association. This year the members who attend the convention will not be far astray if they go one step further by doing away with the present method of electing directors and giving the various fruit growers' associations throughout the province, having a certain number of members, the right to appoint one director each. This would give the fruit growers, in the sections where these local associations have been organized, the right to elect their own directors on the board of the provincial association. As these associations have been established in all the leading fruit sections of the province a board so elected would be even more representative of the province than is the case now. The directors appointed in this way would be men who are actively connected with the production and sale of fruit and, therefore, thoroughly competent and peculiarly well fitted for positions on the board of the Ontario Association. Such an arrangement would be on the same lines as those that are proving so signally successful with the Ontario Vegetable Growers' Association. The latter association, although drawing a government grant of only \$600, has 150 more members than the fruit growers' association, with a grant of \$1,800.

We believe that the present officers of the Ontario Fruit Growers' Association are thoroughly competent men, who have accomplished

much valuable work for the fruit interests of the province. The fault is not with them, but with the system under which they are elected. The change we suggest would not necessarily lead to any very great change in the personnel of the board. Of the present directors Messrs. W. H. Bunting, Murray Pettit, A. E. Sherrington, W. H. Dempsey and Elmer Lick are connected with cooperative associations that would be able to re-elect them to positions on the provincial board. This suggestion is not made with the object of driving any of the present directors off the board, but in the hope that some change will be made in the constitution of the association that will bring the association into more direct touch with the fruit growers of the province and thus add to its power and usefulness.

RELIABLE BRITISH FIRMS

In the July issue of THE CANADIAN HORTICULTURIST, we directed attention to the fact that in London, England, there are many firms that receive fruit by direct consignment that are dishonest. The reputation of some of these firms for crooked work is so well known that our representative, while in Great Britain, refused to accept advertisements from them. Every precaution is taken to see that only reliable firms advertise in THE CANADIAN HORTICULTURIST. When in England our staff representative took pains to investigate the reliability of all firms that desired to advertise in our columns. For this reason we can, with confidence, recommend to the Canadian apple producer and shipper, those British firms that solicit consignments of fruit in this and subsequent issues of THE HORTICULTURIST. We have reason to believe that these firms are reliable, and that they will pay top prices for high-grade fruit. It behooves the Canadian grower to exercise particular care in packing and shipping. No British firm can be expected to make satisfactory returns for fruit that does not arrive true to name and grade, honestly packed and in marketable condition.

When disappointing returns are received by Canadian growers, some of them complain that they were unfairly dealt with. This may or may not be the case. It is the purpose of THE CANADIAN HORTICULTURIST to assist both buyer and seller to determine the authenticity of such complaints. We are pleased to announce, therefore, that Mr. W. A. McKinnon, Canadian Commercial Agent, Bristol, has kindly agreed to act as arbitrator at that point. Any Canadian shipper may secure the services of Mr. McKinnon at any time that a consignment arrives at Bristol. Mr. McKinnon will examine and report the condition of the fruit when sold, and the shipper may compare such with the report from the consignees. This will tend to eliminate some of the obstacles in the way of reputable dealing. We hope to be able to secure the services of similar impartial referees at other leading British importing centres. This, however, is a work that properly belongs to the Dominion Fruit Division under the dairy commissioner.

A COMPLIMENTARY LETTER

The following letter from Mr. Alex. McNeill, Chief, Fruit Division, Ottawa, was addressed to the members of the newly-organized Ontario Cooperative Fruit Growers' Association:

"Let me congratulate you upon organizing the Ontario Cooperative Fruit Growers' Association. While we made some attempt last year to secure a union of the cooperative associations, the occasion was not ripe; nevertheless, we foresaw that very quickly all the evils of competition would again be felt almost as keenly as among individuals if there were no cooperation among the associations themselves. I am pleased to note that you are making the commercial side of the association the chief one. There is no reason why the Ontario Fruit Growers' Association should not take up all other

lines of work, but experience has shown that when it comes to the purely commercial side, even the Provincial Association falls down. The new association will find ample work for itself in taking up the purely commercial side.

"You may rest assured that the Fruit Division will assist the cooperative associations in any way possible. Any information we have with reference to crop reports and sales is at your disposal; and we will also be glad to have your assistance in securing uniform grades in the packing of fruit in the province.

"I note what you say with reference to a fruit inspector visiting the associations frequently. This is only fair. The local associations are practically working along the same lines as the Fruit Division, to secure a good and an honest pack, and the Fruit Division, as far as it lies in its power, will not only impart all the information which it has, but will protect the good name of the associations by watching carefully the 'weaker brethren' to see that they do not lower the standard or otherwise injure the good name that the cooperative associations have been able to make.

"You will be pleased to note with reference to your second request that arrangements have already been made for an expert packer from the Pacific Coast to give demonstrations in box packing. He will visit nearly, if not all the associations of your membership in the near future. Full particulars of these demonstrations will be forwarded to you within a few days."

TORONTO HORT'L SOCIETY

The Toronto Hort. Soc. has organized a woman's branch to help further the interest already taken in the work by members in general. The interchanging of ideas, suggestions, etc., that will prove helpful in the home, will be of value to the ladies. The society purposes holding frequent meetings, with practical talks. Demonstrations will be made in the tasteful arrangement of flowers. A plan will be instituted, commencing in a small way, to help those who cannot afford plants and shrubs. The poor sections of the city will be made more attractive and bright. The officers of the woman's branch are: Chairman, Miss M. E. Blacklock; sec., Mrs. F. Abbott.

Owing to pressure of space in the last issue of THE HORTICULTURIST, we were unable to report that the Toronto Hort. Soc. held its annual excursion to Niagara Falls in July, and spent a most enjoyable day. The chief interest centered in Queen Victoria Park, over which Supt. R. Cameron escorted the visitors, who were thus afforded an opportunity of gaining much valuable information regarding the splendid collection of annuals, perennials, etc., which Mr. Cameron has under his care. A week before the excursion the soc. had the pleasure, by invitation of the pres., Mr. H. R. Frankland, of visiting his home, where they were shown over the "old plantation" and afterwards spent a very pleasant evening listening to, the excellent music provided by an orchestra while Mrs. Frankland, assisted by her daughters, served dainty refreshments.

That the Essex peninsula can grow high-class muskmelons—the kind that are tempting, fragrant and delicious—has been proven to THE HORTICULTURIST in a very practical way. We received a basket of nice ones from "Peach Bluff Farm," the large fruit and vegetable establishment of Messrs. Hilborn and Atkin, of Leamington. Many thanks.

We are offering The Canadian Horticulturist during September for a mere song. A postal note to the tune of \$1.00 will pay for 4 new subscriptions for a year.

Marketing Early Apples

J. F. Scriver, D.F.I. Montreal, Que.

There are almost enough early apples raised on the Island of Montreal now to supply the local market and growers living outside a radius of 10 miles of the city must look elsewhere for a market. It has been shown in the last three years that these apples can be marketed in Great Britain at paying prices.

Pick the Duchess when fairly well colored, and not when they are small and green. On the other hand do not allow them to become too ripe, as they will not carry well then. Pack them in boxes, and guard against them becoming heated. It would be better to ship them to one of the cold storage warehouses in Montreal and allow them to remain there a few days to become thoroughly cooled. Ship in cold storage on steamer, and you will receive satisfactory returns.

I would advise shipping to Glasgow if packed in boxes. Wealthies and Alexanders should be handled in the same way, although these apples have brought good returns packed in barrels. However, the extra price received would more than pay the extra expense.

I would never advise shipping St. Lawrence apples to the old country market. They do not seem to want them there, and often very low prices are secured. The Winnipeg market is the place for them. Pick them on the green side, cool thoroughly before loading, and ship in refrigerator cars. There are two rules that must be observed in exporting early apples. The first is, do not allow the apples to become ripe before picking; gather when on the green side just when well colored; the second and most important rule is never to allow fruit to become heated. Ship only when well cooled, and if you cannot ship in this condition, it is better to allow them to rot on the ground, because it will result in heavy loss.

Enterprising Fruit Growers

At the annual meeting of the St. Catharines Cold Storage and Forwarding Co., of St. Catharines, a committee was named to act with the directors in making shipments of fruit to the Northwest during the present season. This committee has made arrangements for the work. With the experience of the shipments of last year and the advice of Robt. Thompson, the president of the company, who spent some six weeks last spring in the fruit districts of B.C., studying their methods and consulting with the wholesale houses in Calgary, Moosejaw, Regina, Brandon and Winnipeg, they feel that they can look forward to some degree of success. They have adopted a set of rules to govern all shippers and every man is required to sign them.

The rules or regulations in brief, are: That each shipper agrees to fill a certain space in each car or give 5 days' notice of inability so that the committee can procure suitable fruit to fill same; that two cars be forwarded each week, unless lessened by order of majority of committee; that uniform packages be used, also a uniform system of branding names of shipper, varieties and grades on all boxes.

A carload of apple, pear, plum, peach and tomato boxes have been ordered from New Westminster, B.C. A trade brand has been adopted for the western shipments and can be used only when approved of by the committee. All fruit in these boxes is to be packed according to directions and is subject to inspection by a sub-committee to guarantee uniformity. All grapes with brand on have to weigh a standard weight per bskt. All fruit has to be delivered at the cold storage building on the day previous to shipment to enable it to be chilled before going into the refrigerator car. The railway companies are to be consulted so as to ensure a supply of cars and quick despatch. Arrangements are being made to ship to the Ottawa Fruit Exchange in Winnipeg and to wholesale men in the west. The shippers who sent the bulk of the 30 cars last season are making pre-

parations to pack in boxes and wrap a portion of the fruit. Some of the shippers have sent a few crates of strawberries and cherries by express to a few of the western towns to see if they will carry successfully.

Prince Edward Island Letter

Rev. Father Burke, Alberton

Concerning the work in horticultural instruction, undertaken in early spring, Inspector Burke writes as follows: "Horticultural meetings were discontinued for a time during the hay-making season. I do not know whether these will be resumed this season or not.

"The prospect is fairly good for the apple crop, but the quantity of fruit set is not so large as was promised. Plums and pears will be a light crop. Cherries were a good crop; small fruits abundant."

The view of the instructor, who has gone over the province, agrees with our own with respect to the crop. It will not be as abundant as first indications promised. Small fruits are now being picked. They are in abundance, but apart from strawberries, there is no regular profitable market for the quantities grown. We have but a couple of local jam factories, and they are only on a small scale. There should be a big preserving concern here. The best jams and pickles could be profitably put up. Proximity to the maritime markets should secure good sales for pure products. There is no word of the elevation of the Fruit Division to a commissionership yet; indeed, the live stock commissionership is now taken away and made an appendage to the Health of Animals Department. Queer things happen sometimes before people get back to their senses. What has the health of animals to do with formal organized stock breeding? And what has butter and cheese in common with fruit?

There is complaint in New Brunswick, too, because their inspector is not a permanent officer and employed in instruction, as the inspectors elsewhere. Our inspector has only a temporary mandate, although he should be on the regular staff, and we must agitate till he is.

Fruit Notes from Montreal

E. H. Wartman, D.F.I.

The Island of Montreal, noted for Fameuse apples, will come far short of a full crop this season; about 50% clean, and of good size. This variety comprises 75% of the fruit production of the island.

The market for raspberries of all kinds has been firm. The uniformity of baskets in size is quite noticeable, and largely accounts for the good condition fruit has arrived in this season. A uniform berry crate would now be in order so as to pile snugly in cars, to prevent oscillation and to insure good condition at distant points.

Early apples, Duchess, E. Harvest, Astrachans, have been arriving in large quantities in 11 qt. bskts. and have sold well. Bbls. of same varieties are coming in slowly.

The grading of peaches, showing honest face, is becoming very satisfactory to the trade. Fruit men, in general, are making money on account of satisfactory packages and grading of fruit.

The banana trade is increasing annually. One firm received 7 cars in 1 day, 2,500 bunches, which would aggregate \$3,000 in cash.

The Can. Express Co.'s method of handling large quantities of fruits should be commended. When morning express arrives, fruit cars are shunted alongside their commodious shed. Lattice gates are used for ventilating. These are locked; no one but consignees are allowed in until each man's lot is piled and checked. Then buyers are let in. Many sales are made through the grating, so that when shed is open to public, one-half of consignments are sold. Then comes the double checking. Every man who has any packages to bring out has to have a check bearing the number of packages. Men at doors col-

lect these checks, which, when added, should make up the sum total.

The hot weather has commenced to show on early peaches and tomatoes. When skin is broken, juice soon ferments and goods soon become unsaleable. It is hoped that western shippers will continue to ship in the same good style which has been a characteristic of the past few weeks, and they will be handsomely remunerated.

Peaches for North-West

"Peach growers have not yet solved the problems of picking and packing for the Northwest," remarked Mr. F. B. Henry, formerly of Winona, who has spent many seasons on the ground and closely in touch with the western fruit trade, to a representative of THE HORTICULTURIST. "As a rule, Ontario growers pick their peaches too green. This is a mistake. Peaches for long distance shipping should be fully mature, but not ripe. In all cases that came under my notice, peaches well matured kept better than those picked on the green side of maturity; and also such brought at least 20 per cent. higher price."

Some varieties of peaches will ship farther than others. Crawford can be shipped with safety only as far as Winnipeg, while Elberta can be laid down in good condition in Brandon, and even farther. At present, most all our peaches in the West are sold for dessert purposes. The canning season is over there when Elberta arrives. We need an early peach that will carry to that market. This is work for the new Niagara Experimental Fruit Farm. By originating such a variety, the Government will aid the Ontario grower to compete favorably with growers from across the line.

Vegetables in Cold Storage

"I tried some experiments keeping vegetables in cold storage last season," said Mr. J. W. Rush, of Humber Bay, to a representative of THE HORTICULTURIST, "but the results were not altogether satisfactory. Thirty cases of cauliflower, 20 barrels of spinach, 300 roots of celery and a quantity of cabbage were placed in cold storage for two or three months.

"The spinach and cabbage kept fairly well, but the green outside leaves of the cauliflower and the green of the celery turned brown. The temperature was probably not kept low enough. Three or four degrees of frost will not hurt cauliflower. If celery can be kept satisfactorily it will mean much for our market gardeners, as Canadian celery is of better flavor and sells better than the celery that is imported."

When in Reading, England, recently, the staff representative of THE CANADIAN HORTICULTURIST had the pleasure of being conducted over the large seed warehouses and trial grounds of Messrs. Sutton & Sons, a name that is well and favorably known throughout the British Empire. THE HORTICULTURIST had a previous acquaintance with this firm through their catalogues. A personal visit to their place of business was considered a treat, and proved to be a surprise. No one, who has not been over their premises, has any conception of the pains this firm takes to ensure only pure seeds being sent to their customers. For their foreign trade, they take extra trouble to protect their seeds from moisture during the ocean voyage. The seeds are placed in ordinary packages bearing a Sutton seal. Afterwards, they are placed in a tinfoil covering with the ends melted together, then into an air-tight tin with a screw cap and this is soldered. If the order is sufficiently large these packages are placed in an hermetically sealed steel tank. These are but a few examples of the trouble taken to give customers pure seeds.

I have always valued THE CANADIAN HORTICULTURIST and look forward to its arrival each month.—Jas. Kay, Aberdeen, Scotland.

Handling and Shipping Fruit via Montreal

The Second of a Series of Articles by the Staff Representative of the Canadian Horticulturist, who this Summer Visited Great Britain in the Interests of Canadian Fruit Growers and of this Paper

THE conditions under which Canadian fruit is handled by the steamship companies while in transit are, on the whole, very satisfactory. It is gratifying to find that this is the case, as the proper transport-

favorably impressed with the manner in which the steamship company cared for its load and with the treatment accorded to the perishable products of which it consisted after it reached London. There is room, however, for great improvement in the care given our produce at other ports, such as Liverpool, Manchester and Glasgow.

An important factor in successful transportation is to keep the fruit at a uniform temperature from the time it is picked until it is sold. This has been demonstrated to the sorrow of some of our growers in western Ontario, in shipping fruit via New York. At that port the fruit is transferred from the freight sheds to the steamer on the decks of small boats. On these it is exposed to the sun and weather and then placed in the hold at a temperature often of 75 degrees. Having been picked and shipped at a temperature much lower, the rise and subsequent fall in temperature on board has a very damaging effect. Although a lower freight rate may have been secured, it seldom compensated for the loss occasioned in marketing by the inferior condition of the fruit; it did not net the shipper as much as had it been shipped by the all-Canadian route. Apples shipped via

the temperatures of much of the produce before it is loaded on the vessels and note the condition of the packages and produce, but this year they are placing thermographs in the holds of every steamer leaving Montreal for Great Britain. These thermographs keep an accurate, automatic record of the temperatures maintained each day of the voyage. In Great Britain, inspectors of the department again inspect the cargoes as they are unloaded, test the temperature of the produce and record the percentage of broken boxes and damaged fruit. This work has had a far-reaching effect, as shown by the great improvements that have been made in recent years in the methods of handling and shipping perishable products.

THE THOMSON LINE

Not being an expert in cold storage matters, some points may have escaped our attention that an expert would have caught, but we feel free to say that we were most favorably impressed by the careful manner in which the officials of the Thomson Line handled and looked after the cargo of the vessel on which we sailed. This care was given, not only to the products while being loaded, but during the course of the voyage and throughout the process of unloading on the other side. This line, in fact, appears to have brought these matters very near to the point of perfection.

From information gained, not only from officials of the company, but from exporters in Canada and importers in Great Britain, the Thomson Steamship Co. are said to have been the pioneers in every forward movement made to enable the Canadian shippers to land their produce in Great Britain in satisfactory condition. They are said to carry more fruit from Canada than any other company, and have the name of being the most careful, the quickest and most obliging company in the Canadian trade to London. The company has the exclusive right to discharge the cargoes of its vessels into the new Canadian Produce Warehouses (West) at Surrey Commercial docks. These warehouses are the best equipped in Great Britain.

The accompanying illustrations, secured last year, give a good idea of the manner in which the fruit is unloaded from the drays to the wharf, and the barrels lowered into the hold.

It will be seen that large mattresses are used on which to land the barrels, so that the fruit will not be bruised or injured in any way when loading or unloading.

The vessel is divided into compartments in



Unloading on Wharf from Teams

ation of fruit from the orchard in Canada to the salesrooms of Great Britain, is an important factor in the development of our export trade. On the manner of transportation largely rests the ultimate profit or loss of the venture. It should be such that the same care is taken as in the production of the fruit, but, until comparatively recent years the reverse has been in evidence.

One of the chief objects we had in view in visiting Great Britain was to ascertain the conditions under which perishable products are handled by the steamship companies. It was unfortunate that business arrangements necessitated the trip being taken at a season when fruit was not being exported. On the other hand large quantities of cheese and butter were being handled in the cold storage compartments of the vessel. The care given these articles gave us a good idea of the manner in which our fruit exports would be handled later in the season.

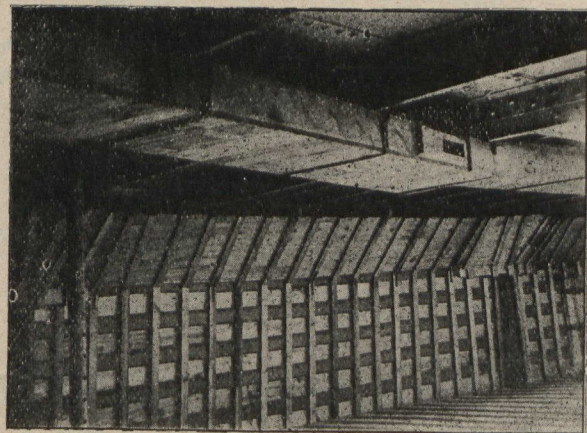
We all know, as has been shown repeatedly in THE CANADIAN HORTICULTURIST, that on this side of the Atlantic much of our fruit is not picked at the proper stage of maturity, that often it is left in piles in the orchard at the mercy of the weather, and that frequently it reaches the steamer in a condition unfit for safe carriage. The Markets Division of the Dominion Department of Agriculture, established by Prof. Jas. W. Robertson, and now ably managed by Mr. W. W. Moore, has done and is doing excellent work towards bringing about an improvement in everything connected with the shipping of fruit. Naturally, however, when we have not reached perfection in our methods on this side, we cannot say much if we find some points to criticize in the handling of our products by the steamship companies, and by those who are responsible for its care after it reaches the wharves in Great Britain.

In anything we may say on this subject, however, we are perfectly well aware that "one swallow does not make a summer," and that it would not be safe to draw any sweeping conclusions after accompanying and watching the handling of only one steamship load of produce. On the other hand we feel that what we saw during our trip was sufficient to give a general idea of the manner in which much of our fruit is handled, and to enable us to draw some conclusions therefrom. On the whole we were very



Lowering Apples into Hold

Montreal are delivered in the cars direct to the wharf, and can be unloaded, under cover of the steamship company's shed, immediately into the hold of the vessel. They thus experience but slight change in temperature and are spared all unnecessary handling. That as accurate an idea as possible might be obtained of the care given perishable products by the steamship companies, arrangements were made to sail on one of the large freight boats of the Thomson Line, of which the Robt. Reford Co., of Montreal, are the agents in Canada. It thus was possible to watch the loading of the vessel, to check the temperatures maintained in the hold during the voyage, and to observe the unloading and handling on the wharves in Great Britain. In this connection mention might be drawn to the careful supervision that is given to these matters by the officials of the Markets Division of the Department of Agriculture. Not only do they obtain



Apple Storage Room Aboard Ship

which temperatures of various degrees can be maintained. The compartments are provided with ventilating shafts. Sirocco fans are used to draw off any foul air or gas that may accumulate. During the hot weather these chambers are cooled by means of cold air. The temperature can be kept at about 40 degs. Some chambers are insulated and cooled by the brine pipe system, and can be cooled to zero if necessary.

Shippers should do everything possible to see that the fruit reaches the ship in proper condition. Poorly selected and poorly packed fruit cannot be expected to reach London in satisfactory condition. The quality of such and the prices obtained are not as good as is the case where proper care is taken to deliver it to the boat in good condition and at a right temperature.

ON THE OCEAN

During the voyage the refrigerating machinery was placed in charge of the 4th engineer, who took the temperatures 6 times each day. This was done by means of a thermometer, on a string, placed at the bottom of an iron tube leading to the various chambers. These tubes had an opening on the deck through which the thermometers were drawn up that the readings might be recorded. We were given the privilege of verifying these records, and took advantage of it many times during the voyage.

Great care was taken to ensure an even temperature in the hold. This usually is accomplished, as the records on the thermographs that are placed in each compartment by the Dominion Government inspectors in Montreal show. Conditions on the wharves at London and other British ports will be described in our next issue.

Our Apple Trade in France

A. McNeill Fruit Division, Ottawa

The fruit division is in receipt of a letter from Mr. Proust, of Roscoff, France, who has done considerable business in Canadian apples delivered in Havre. Mr. Proust says that at the time of writing, the latter part of June, the prospects for a crop in France were fair, but that they could not speak positively of the actual quantity until about the end of July. Whether the crop in France is good or not, he says there will always be a trade for a large quantity of Canadian Roxbury Russets. These apples should not be too large. Mr. Proust gives the size of 22 centimeters in circumference, or about 8¾ in., carefully packed in bbls. These apples should be delivered at Havre about the end of Oct. or middle of Nov., in sufficient quantities to impress the market.

Mr. Proust states that should there be a shortage in the French crop, there will be a large market not only for Roxbury Russets, but for Golden Russets, Ben Davis, Stark and apples of that type. This corresponds with the experience of the last two or three years in the French trade. Our Canadian buyers were somewhat astonished last year to find that the French buyers in Canada refused Northern Spies, but would take all the well-grown Ben Davis that were available.

Independent Telephones

An independent telephone movement centering at Jordan Station has taken place recently. A large number of growers in Beamsville, Vine-land, and Jordan have formed a co-operative company to be called the Niagara District Independent Telephone Co., Ltd., with a capital of \$10,000. The shares are \$25 each; any man taking three shares gets his phone rental for \$10; less than three shares, including non-subscribers, \$12. The stock is limited to six shares and no subscriber can transfer his stock without the consent of the company. Already 100 phones are contracted for, and over \$6,000 in stock subscribed. The provisional directors are: Pres., C. Wismer, Jordan; sec.-treas., Levi Moyer, Beamsville; Alvin Culp, Alex. Tromp, and Elvin Werner.

POULTRY DEPT.

Conducted by
S. Short, Ottawa

The growing demand for first-class eggs and poultry is awakening a keener interest in poultry production both among experienced breeders and also among intelligent young men and women who are attracted to poultry raising as a means of livelihood. Better prices are prevailing now than ever before. Year after year sees an upward tendency in the prices of eggs, both in summer and winter. It must be borne in mind, however, that this is caused partly by the increase in the prices of all poultry foods and lumber for building, and in hired help. I may fairly say that the prices are not yet so high as to give more than only a fair profit to those who exercise care and economy in their business.

The magnitude of the poultry interests and its value to the country is being fully recognized by the Ont. Government, which gives generous grants to the leading poultry assns., as well as maintaining a dept. for poultry at the Guelph Agri. College. An evidence of the good work done there is the bringing together of all the leading experts in poultry matters, both American and Canadian, at the first poultry institute held at Guelph in March last.

DRY FEEDING

At that meeting many valuable lectures were given, all of which have been incorporated in a report published by the Dept. of Agri., Toronto, and which can be had by making application through the mail. One of the most interesting of these lectures was delivered by Mr. A. F. Hunter, West Roxbury, Mass., on "Dry Feeding." It contains practical and common sense suggestions and changes of a radical nature in feeding with a view to the improvement of the birds and a saving of time. Pressure of space forbids the publication in these columns of the entire lecture. The following extracts, however, will give an idea of Mr. Hunter's views:

"That quite a good deal of the trouble we have been having with our flocks was due to the defects in methods of feeding, has come to be the opinion of many observers, and of late

the feeling has been gaining ground that the feeding of a cooked mash is a serious mistake. One reason for this is found in the fact that the fowls gobble the food down too quickly, far too quickly for the digestive organs to perform their allotted tasks, and the results have appeared in the form of indigestion, looseness of the bowels and other symptoms of the birds being out of condition. Not infrequently the birds become over-fat, the organs become engorged, a blood vessel bursts, and a fowl is found dead under the roost in the morning. The explanation of this is that feeding a cooked mash is 'forcing' the birds beyond their ability to digest and assimilate; it is analogous to 'forcing' for rapid growth of tender, delicate flesh for market, and the process is all right for chickens that are to be early killed for the table; for that definite purpose the quicker the growth, the greater the profit, but for birds that are to endure the strain of persistent egg-production, and are to be the parents of strong, vigorous, bound-to-live offspring, the 'forcing' process invites disaster, because it induces and continues a condition of tenderness that is exactly opposite from the hardiness so desirable for the best results.

"The pith of the argument for dry feeding lies in eating slowly a bit at a time—first a mouthful of dry mash, then a bit of grain or a seed or two, and then a snip at a clover-leaf or head—then to the drinking fountain for a sip of water. It does not take us long to discover that this is exactly the way the fowl or chick eats when running wild and finding its food bit by bit—it is 'Nature's way' for a bird to feed, and if we but do our part in supplying the essential food elements so the birds can take what they want and as they want it, the conditions seem to be right for them to eat in the natural way, and they will eat no more than they want, and eat it in the way their systems can best appreciate it."

Empress Eugene is the hardiest of the Duke cherries—the only one that has fruited at Ottawa.—W. T. Macoun, Horticulturist, C.E.F.

A great offer: The Canadian Horticulturist 1 year for 50 cents, or 3 yrs. for \$1.20. Four new subscriptions, 1 yr. for \$1.00.

INSURANCE

The very best kind of Insurance—i.e., provision for the future as well as the present, is a Savings Account in

The SOVEREIGN BANK OF CANADA

Interest paid four times a year.

\$1.00 will open an account.

Put your money in a place where you can get it when you want it!

57 BRANCHES THROUGHOUT THE DOMINION

Mention The Canadian Horticulturist when writing.

5000 NEW READERS

That is what we want for THE CANADIAN HORTICULTURIST, and what we are out to obtain. More than that—we intend to have that number by the 1st of May, 1907. With that object we have decided to offer THE CANADIAN HORTICULTURIST at prices at which people who are interested in fruit, flowers or vegetables will have to subscribe.

From now on we will accept subscriptions for THE CANADIAN HORTICULTURIST at the following

REDUCED SUBSCRIPTION RATES

A 1-Year New or Renewal Subscription for 50c
A 3-Year New or Renewal Subscription for \$1.20

This means that we will accept yearly new or renewal subscriptions at just half what the regular price of subscription for this paper has been during the past 28 years, while new or renewal subscriptions for three years will be taken for **LESS THAN HALF PRICE.**

In spite of this great reduction it is our intention to make the paper better in every way than ever. To inaugurate our subscription campaign we have decided to make a still greater, but only a limited term subscription offer.

During the month of September we will accept Clubs of Four New Full Year Subscriptions for The Canadian Horticulturist for only \$1, or at the rate of 25c. each.

We hope our readers will help us, not only by renewing their own subscriptions at our greatly reduced rates, but that they will get up clubs for THE HORTICULTURIST among their friends and neighbors, and thus help us to make this the **Greatest Horticulturist Paper in the World.**

We are wondering who among our readers will be first to send us some of these clubs. Our object in making this great offer is explained in the editorial columns of this issue.

These club rates apply only to bona fide new subscriptions and do not refer to subscriptions that were ordered or that expired on or before August 31, 1906. Such subscribers will be able to renew their subscriptions next year at the reduced rate.

WRITE FOR SAMPLE COPIES OR
FURTHER PARTICULARS TO

The Canadian Horticulturist

Rooms 507-508 Manning Chambers

TORONTO

ONTARIO

British Columbia Letter

C. P. Metcalfe, Hammond

Weather conditions for July and Aug. have been favorable. Raspberries and blackberries are an average crop. Prices good. Plums generally are a heavy crop, Italian prunes especially. Early apples are about over, and the prospects for a heavy crop of fall and winter apples are good. Pears are somewhat less than a medium crop.

Manufacturers and small fruit growers have been getting rid of their surplus stock of small fruit boxes, and will be in a position to use the legal $\frac{3}{4}$ and $\frac{1}{2}$ qt. bxs. next year. I think most likely the $\frac{3}{4}$ qt. box will be used for strawberries and the $\frac{1}{2}$ qt. for raspberries. Plums and prunes are in now, and will be moved out in carload lots next week and after until finished.

The Provincial Government here has been making exhibitions of green and bottled fruits at various points in Manitoba and the Northwest. The exhibitions were very creditable and were the admiration of thousands who attended the exhibitions and will prove an excellent advertisement for the fruit-growing industry of the province.

The problem confronting the horticulturist at the present time is the lack of cheap labor. All countries engaged extensively in the production of many of the staple articles of consumption and trade, have their cheap or coolie labor, and it will be necessary for the Dominion Government to take some action in this respect to relieve the present want. The development of the fruit industry of B.C. is being retarded by the want of cheap labor. The problem must be dealt with sooner or later by the Government.

Four new subscriptions for The Canadian Horticulturist for only \$1.00. Can't you get up a club?

A Growing Exhibition

The Ontario Horticultural Exhibition, that will be held here from Nov. 6 to 10, will be conducted on a much larger scale than last year. One of the chief features this year will be the presence at every gathering of the famous Black Dike Band of Great Britain, one of the most famous musical organizations in the world. The instruments are all of brass and, in this respect, the organization is unique. At every performance at afternoon and evening there will be selections by the band, as well as quartettes, duets and solos.

The requests for prize-lists already received indicates that the exhibition, in all lines, will be much ahead of last year. The excellent quality of this year's fruit crop insures an exceptionally high-class exhibition. It is believed that the combination of high-class flowers, fruit and vegetables, with the best of music, will be sure to attract a very large attendance. It is expected that Massey Hall will be crowded every day. This year the Toronto City Council has appointed representatives to act upon the Board of Management, which insures the interest of the city.

A strong committee, composed of Mayor Coatsworth, representing the city; R. J. Score, H. R. Frankland, representing the Horticultural Exhibition; F. F. Reeves, representing the Veg. Grs. Assn.; H. G. Sibbald, representing the Bee Grs. Assn.; and H. B. Cowan, representing the Dept. of Agric., waited on the Canadian Passenger Assn. early in Aug., and requested half-rates to the exhibition. The decision of the railways has not been announced, but it is anticipated that they will run an excursion from all parts of the province on Wed., Nov. 7, good for the entire week. Those desiring to attend at other dates will be able to return free on the certificate plan.

Fruit Crop Conditions and Prices

APPLE indications in Canada are for only a medium crop, but on the whole, of good quality. From now on weather conditions will be the controlling factor. In Ontario, the crop will not be as large as was expected; reports from a few districts, where hail and dry weather have done damage, indicate a light crop. As a whole, only about 50% of a full crop may be expected. The quality promises to be extra good, scab and insect injury being less noticeable than for many years. Rain is needed badly; if it does not come soon, the fruit will be undersized. Among the fall apples, Colvert and Fameuse promise to yield the heaviest. In winter varieties Spy and Greening are the most promising, the Spies being particularly good and clean. Baldwin and Russet will come next, with King and B. Davis following.

Pears promise a good average crop of fine quality. The peach crop is declared to be a fair average, but slightly less than last year. Plums, a very light crop; prices will be high. The grape crop is excellent this year. Rot is prevalent in a few vineyards, especially in those that were not sprayed. Fruit of all kinds is suffering for want of rain.

A POINTER ON PRICES

There will be no difficulty about selling apples this year. We have a number of buyers in mind who will have the effect, even if they do not buy the whole crop, of materially stiffening prices. Two buyers from South Africa are now in Canada negotiating with Annapolis Valley and Ontario growers, and making preparations to ship Gravensteins and other apples to Cape Town. They will probably buy largely. One of them called on THE HORTICULTURIST recently, and said that he wanted apples that could be relied on, and is willing to pay an extra price for them. In addition to these a number of buyers have written from the Old Country, and expressed their intention of coming to Canada to buy. As regards sales already made, we know of some that indicate that prices will be good. One orchard of about 200 bbls., east of Toronto, was sold for \$300; one of 250 bbls., \$275; another at \$2.25 a bbl., tree run, owner to furnish bbls. and pick, grade and pack with assistance of buyer. It would be well for growers not to be in a hurry to sell winter apples, but be sure that they put up a good article, then ask a good price.

UNITED STATES REPORT

While not so large as the govt. report from Washington would indicate, the apple crop of the U.S. is known to be much larger than last year. The Apple Congress that met in St. Louis on Aug. 17 estimated the crop of the U.S. and Canada at 56,000,000 bbls., and the price to be \$1. In N.Y. State there will be a large crop of good quality; Baldwins predominate, with Kings next; Russets are short. That state will be a strong competitive factor, for Canada, in the export trade. Missouri will have a fine crop of excellent quality. The U.S. govt. reports Mo. to have 82% of a crop, but probably 60% or less is nearer correct, or about 200% of last year's crop. Ben Davis is the leading variety, and particularly good this year. The crop in Ohio is the best for years. Mich. will have about 55% of a crop. Illinois will be less than the average; Iowa, Kan., Ark., and Neb., good. Illinois will have less than was reported, probably average. Other states, except Va., also will have fair crops. The box apple states, Colo., Wash., Idaho, Ore., and Cal., are estimated to have double the crop of last year. That means that they will cut a big figure in the export trade.

THE NOVA SCOTIA CROP

Nova Scotia will have an average crop, about

the same as last year, say 325,000 for export. The quality is only fair. It is reported that a large part of the crop is not worth shipping. Fungus has been prevalent and insects. Tussock moth suddenly became troublesome, and is destroying not only the leaves but also gnawing the surface of the apples and making them valueless. Baldwin will lead in yield; quality, good. King, Ribston, Blenheim, Spy and Russet follow in order. Gravenstein and B. Davis, poor crop and poor quality. British Columbia will have a good average crop. In Quebec, the crop will be less than medium; Fameuse, fair. The Ontario crop correspondents of THE HORTICULTURIST point out the situation in the various counties of the province as follows:

PRINCE EDWARD COUNTY

West Lake.—The apple crop will be less than last year by thousands of bbls.—Stephen Lake.

NORTHUMBERLAND COUNTY

Rednersville.—The apple crop is only 60% of last year's crop. The quality runs from fair to good.—Harry Dempsey.

DURHAM COUNTY

Bethany.—Fall and winter apples will be a medium crop, only two-thirds of last year's crop. Pears and plums will be light. Fungus diseases are not prevalent.—F. E. Brereton.

PEEL COUNTY

Clarkson.—Lawton berries are a full crop, and paying well. Winter apples are falling short of last year's crop; they are clean and free from scab or spot. Pears are a good crop.—W. G. Horne.

HALTON COUNTY

Burlington.—The quality of apples is better than average. Codling moth is working havoc among pears and apples. Very little black spot is to be seen, but considerable damage has been done in many orchards by hail. Greening, Spy and Cranberry are making the best show at present. King, Baldwin, Russet and other winter apples are a lighter crop. Fall apples are a light crop. There will be about the same quantity of export apples from Burlington this year as last year. Pears are a good average crop. Keiffer a little under average.—Wm. F. W. Fisher.

WENTWORTH COUNTY

Hamilton.—Early peaches are receiving attention now, mostly Clingstone. Prices have kept up fairly well. Yellow St. Johns are next to arrive, and will be ready about Aug. 30. Crawford are not expected to be a heavy crop this year. While plums have been pronounced a complete failure, a number of baskets have appeared on the market, Bradshaw, Queen, Saunders, and Imperial Gage. Prices, 40-75c. a 11 qt. bskt. Pears are an abundant crop. Bartletts will be ready about Aug. 27. Clapp's Favorite are ready now, and are worth 30c. a bskt. wholesale, and 40c. retail. Grapes will be a heavy crop. Muskmelons are a good crop and bringing good prices, in 11 qt. bskts, 25-40c; in crates, \$1-\$1.25. Watermelons have just come in and are worth \$1-\$1.25 a doz. Harvest apples are plentiful. Winter apples good only in some varieties. Baldwins are scarce.—Jas. A. Stevens.

Winona.—Early Clingstone peaches are an abundant crop, quality not up to the usual, owing to the extreme dry weather, with prices ruling rather low, but demand good. Lawton berries, a full crop and fairly good sample, are nearly over now; prices and demand good. The general outlook for late peaches is fair; if we have rains shortly it will greatly assist the quality and quantity, otherwise I do not think they will come up to the standard sizes of the last few years. Plums are a very light crop, but those that are bearing (where sprayed)

are quite free from rot and fungous diseases; the bulk of the crop will be of the following kinds: Bradshaw, Yellow Egg, Gueii, Monarch, Reine Claude, Lombard and some kinds of Gages. Grapes, where sprayed, are looking up to last year's quality and quantity; where not, more or less rot and petrified berries appear in the bunches or have fallen out and left scraggy bunches. I sprayed all kinds of grapes before blossoming, with the exception of one row of Niagaras; where sprayed, about perfect; the one row not sprayed before blossoming, very poor. Although sprayed twice since, the spray has had no effect in checking the rot, which is gradually getting worse until at present the bad berries in bunches will run from 30% to 90%.—Egbert M. Smith.

LINCOLN COUNTY

Grimsby.—The general outlook for fruit is good. Rot in grapes has not developed much in last 3 or 4 weeks; Rogers 15 is affected most. Peaches are a fair crop; Elbertas, good; Crawford, rather shy. Pears are good and exceptionally clean, especially Bartletts; blight has been prevalent, and this year affected orchards planted on clay more than those planted in light soils. Plums are very light. Tomatoes, while not badly damaged, show signs of suffering from lack of rain. The apple prospect would appear to be as good as last year, but all the trees have suffered more or less from twig blight, especially the Greenings.—H. L. Roberts.

Jordan Station.—The fruit crop is in a trying condition owing to the need of rain, although in this immediate locality it is not suffering to the same extent that it is to the east and west of us. Neglected peach trees are carrying 3 or 4 times the number of peaches they should carry; it is impossible for them to bring to perfection their load. Trees that have been well pruned, cultivated, fed and thinned, are carrying a good crop of fine fruit. Grapes, where spraying was neglected, are rotting badly; in some cases almost ruining the crop; on the whole, no more than half a crop. Apples, even where not sprayed, promise a crop much larger than last season and of better quality. Pears have suffered from blight; the crop will be light, though of good quality. Plums are more plentiful than was expected, and are of good quality.—C. M. Honsberger.

St. Catharines.—The extreme drought that has prevailed throughout the greater part of the Niagara district has wrought considerable damage to the fruit crop and, unless broken in the near future, will be quite serious. The early tomato crop has proved a very good one, but serious damage from rot is reported in nearly all the late fields, which, of course, are depended upon for the main crop. Cannons are becoming apprehensive that the pack will be very much lessened. Pears are a moderate crop, generally speaking; many varieties, however, have blighted to a considerable extent. Early peaches have been plentiful. The yellow varieties will be a fairly good crop, but need rain badly to swell them to normal size. Grapes have been affected slightly by rot and mildew; the crop will be moderate to fair. All fruits are ripening prematurely on account of the dry, hot weather.—W. H. Bunting.

KENT COUNTY

Chatham.—Fruit prospects are good. Apples are quite free from scab and worms, and are holding on pretty well. This is for orchards that have been sprayed. In unsprayed orchards the crop is light. Greenings promise most, Spy next, Baldwins light; Ben Davis, light; only few Kings.—W. D. A. Ross.

LAMBTON COUNTY

Forest.—The peach and plum crop is practically a failure. Pears will be fair and crab

apples heavy, although neither is grown extensively. The apple crop will be about 25% heavier than last year, and where the orchards have been sprayed and cared for, the quality fine; as a whole, the crop is light.—D. Johnson.

BRUCE COUNTY

Walkerton.—Plums are a total failure. The apple crop is light to medium; quality good, very little spot, some codling moth. Owing to dry, hot weather, apples on sod are drying badly. Cultivated orchards are holding their own. If present weather continues, the crop will be lessened materially.—A. E. Sherrington.

GREY COUNTY

Meaford.—Apples are cleaner than for many years, though, where unsprayed, they show some spot. The crop is very irregular; some orchards are as full as in '96, while others have a very light crop. This feature is more noticeable in winter varieties, fall fruit being generally good. There is a full crop of snow apples, also of Ben Davis. Spies and Greenings are medium, Baldwins light; other varieties are only fair. Pears are a light crop. Plums, a failure. Peaches, good.—A. Gifford.

NEW BRUNSWICK

York Co.—Duchess apples are extra good; Wealthy, good; Alexander, medium; Fameuse good, slightly affected with scab; Y. Transparent, good; Gano, medium; G. Russet, failure; McIntosh, failure; Astrachan, failure; Pewaukee, very light; Princess Louise, light. Crab apples, Hyslop, extra good. Plums, failure. Blackberries, good. Black Currants, extra good.—John Ferguson, Lower Queensbury.

St. John.—There are not many apples raised in this province as yet. Many young trees are planted that have not yet matured. The average pack here is from 3,000 to 5,000 bbls. The pack this year will be about 5,000 bbls., as crop prospects are very favorable.—Taylor & White.

QUEBEC

Abbotsford.—Unfavorable conditions have reduced the prospects for an average crop of first-class apples. The "June drop" was heavy. The curculio and codling moth are in evidence. The Fameuse is a fair crop, but more scabbed than last season. Winter varieties not over half crop. A few pears, but plums and cherries are a complete failure.—J. M. Fisk.

BRITISH COLUMBIA

Plums, Japanese, light; European, full crop; Washington, Bradshaw, Gage, and Y. Egg, especially good. Peaches, not grown extensively, but where planted, are a fairly good crop; Y. St. John and Triumph best, loaded. Pears, Clapp's, rather light; Bartlett and F. Beauty, good; L. Bonne and Clairgeau, well loaded. Apple trees in full bearing, well loaded; younger orchards, only a scattering crop.—Martin Burrell, Grand Forks.

Four people can get The Horticulturist for a full year for 25 cents each—provided they are not already subscribers.

Over \$1,000 in Prizes

So liberal have been the donations of special prizes to the Niagara District Horticultural Exhibition that will be held at St. Catharines, Sept. 14, 15, that the prize list now amounts to considerably over \$1,000. Of this, about \$600 will be given for fruit, \$330 for flowers and \$150 for vegetables. Copies of the prize list may be obtained from the sec., Mr. E. T. Reed, St. Catharines.

The judges were appointed at a special meeting held Aug. 23, and are: In the fruit sections, for commercial packages and special prizes, A. McNeill, of Ottawa, and P. J. Carey, of Toronto; M. Pettit, of Winona, for grapes and pears; A. W. Peart, of Burlington, for apples and

plums; and E. Morris, of Fonthill, for peaches. Mr. Braik, supt. of parks in Buffalo, assisted by another gentleman from Buffalo, will judge the flowers, and Mr. A. McMeans, of the Agric. Coll., Guelph, the vegetables.

Arrangements are being made for the running of a special train from Toronto to St. Catharines the last day of the Exhibition with excursion rates from all points along the line. The exhibits promised already show that the large armory will be severely taxed to afford sufficient accommodation. A special exhibit is being prepared by Mr. Roderick Cameron, of Niagara Falls, that will include over 1,000 specimens of flowers. It promises to prove a great exhibition and a valuable advertisement for the Niagara district.

Large Profits From Fruit

This statement shows the value of the crops grown by Mr. Arthur C. Starr, of Nova Scotia for the last 7 years. The profits were estimated as being equal to 15% on a value of \$1,000 an acre. The statement was as follows:

Year	Bbls. Exp'd	Total Bbls.	Total Ex- port	Total Receipts
1899.....	1,447	1,715	\$ 3,655.00	\$ 3,968.50
1900.....	717	995	1,231.06	1,403.39
1901.....	1,759	2,000	5,018.56	5,330.33
1902.....	1,067	1,220	2,446.57	2,581.74
1903.....	1,838	2,037	4,298.04	4,558.23
1904.....	1,609	1,715	2,446.75	2,537.00
1905.....	715	840	1,978.61	2,121.90

Total..... 9,152 10,532 \$21,075.59 \$22,491.09
Average... 1,307 1,508 3,010.80 3,213.00
Average of export fruit, \$2.30 per bbl.
Average total sales, \$2.13 per bbl.

This crop was raised from 14 acres of bearing trees.

EXPENSES

Plowing and harrowing.....	\$ 42.00
Fertilizers.....	224.00
Spraying.....	56.00
Pruning.....	14.00
Picking and packing.....	360.00
Barrels.....	403.00
Contingencies.....	14.00

Total average sales..... \$1,113.00
Total expense..... \$3,213.00

Net profit..... \$2,100.00
This is equal to 15% on a value of \$14,000 or of \$1,000 per acre.

Vegetables for Pickling.—The manager of a prominent pickling concern in the vicinity of Toronto said: "For the pickling business, we require vegetables that are fresh and of good quality. Cucumbers should not be ripe when picked; they should be small rather than large, and they should be carried to the factory as soon as picked, so that they will not lose their crispness. Onions must be small, three-quarters of an inch in diameter and under, as they appear to better advantage when put up. Cauliflower for pickling should be compactly headed, clean and white, free from leaves and dirt; the fresher the better, and if of medium size they are nicer to handle than either small or large."

A great offer: The Canadian Horticulturist 1 year for 50 cents, or 3 yrs. for \$1.20. Four new subscriptions, 1 yr. for \$1.00.

THE CANADIAN HORTICULTURIST has improved greatly during the past year.—Douglas Ford, Toronto, Ont.

Analyses of New Experiment Station Soils

The Rittenhouse Farm

No.	Where Taken and Area.	Per cent of Gravel.	Per cent of Sand.	Per cent of Silt and Clay.	Organic Matter.	Class.
1	Near school gardens; about 2½ acres.....	.59	56.276	43.674	3.736	Loam.
2	Subsoil, 2 ft. deep.....	0.67	32.325	32.675	.....	Sandy loam.
3	Fifty yards north of gardens.....	1.64	54.652	45.348	4.988	Loam.
4	Subsoil, 15 in. deep.....	1.07	25.642	74.358	.....	Clay.
5	In the ravine; 4 acres.....	0.41	934	58.066	4.812	Loam.
6	Subsoil, 15 in. deep.....	.630	39.632	60.368	.....	Clay loam.
7	Centre field, 27 acres, representing 60% of farm.	10.830	32.488	67.512	9.260	Clay loam.
8	Subsoil, 15 in. deep.....	6.940	14.606	85.394	.....	Clay.
9	North-west side of ravine; about 6½ acres.....	.950	46.446	53.554	6.112	Loam.
10	Subsoil, 1 ft. deep.....	3.650	33.974	66.026	.....	Clay loam
11	Red clay area, in centre field; 4½ acres.....	10.790	20.318	79.682	8.330	Clay loam.
12	Subsoil, 15 in. deep.....	1.710	10.288	89.712	.....	Heavy clay.

There is also 1½ acres of wood land.

The Harris Farm

13	Centre of farm; 30 acres.....	3.390	43.190	56.810	7.916	Loam.
14	Subsoil, 8 in. deep.....	8.430	36.855	63.195	.....	Clay loam.
15	Near lake shore; 10 acres.....	1.790	41.192	58.808	6.276	Loam.
16	Subsoil, 15 in. deep.....	.430	35.400	64.600	.....	Clay loam.

There is also about 4 acres of red clay, similar to Nos. 11 and 12.

The Culp Farm

17	In peach orchard; about 15 acres.....	1.200	56.984	43.016	4.966	Loam.
18	Subsoil, 3 ft. deep.....	.370	76.494	23.506	.....	Light sandy loam.
19	A fair average of farm; about 58 acres.....	1.840	64.582	35.418	3.850	Sandy loam.
20	Subsoil, 15 in. deep.....	1.110	60.088	39.912	.....	Sandy loam.

There is also ½ acre of red clay, similar to Nos. 11 and 12; 5 acres of low land, similar to Nos. 5 and 6; and 10 acres of wood land.

Vegetable Crops Have Suffered from Drought

THE drought in Ontario during the past 6 or 7 weeks has left its mark on the vegetable crops. Reports from the crop correspondents of the Ont. Veg. Assn. indicate that dry rot and drought have caused a partial failure of the tomato crop, particularly in the Niagara district. As an indication of how seriously the canning factories view the situation, the canners, who usually do not commence to pack tomatoes until the late varieties come in, began to buy and pack all they could get of the early varieties. Potatoes, likewise, were threatened and, due to scarcity, are bringing good prices. Other vegetables also have felt the need of moisture. Showers that fell the latter part of Aug., however, improved the situation considerably. Cauliflower and cabbage are under the average, but may improve, if it rains frequently. Onions will be about $\frac{1}{2}$ a crop of good quality. Root crops are holding their own. Celery, good. Sweet corn, small in ear. The detailed reports are as follows:

OTTAWA DISTRICT

Owing to drought and hot weather, crops are in a peculiar condition. Tomatoes have ripened too quickly, and consequently a glut is on. Corn is not well filled out, but there is lots of it. Carrots, beets, parsnips and onions are still coming in fast and of good quality. Lettuce is in good demand and no supply. Plenty of cabbage, but small, hard and tough. Cauliflower, very scarce. Late cabbage and caul are expected to be a short crop unless it rains soon. Early potatoes are stiffening in price; the late crop is almost a failure, being very small. I have seen or examined quite a number of onion patches, and while they are maturing a little early and small, the crop will be the best that I have seen in years.—T. Mockett.

FRONTENAC COUNTY

Kingston.—Continued dry weather and heat keeps the late varieties of vegetables stationary. No growth is noticeable. Late sown cauliflowers will be a light crop; some show signs of heading, but are of no use. Cabbages will yet head if rain comes soon. Onions are ripe, but are small owing to the check given by blight. The rot in potatoes seems to have been arrested; early maturing kinds may prove a fair crop. Tomatoes are suffering from the extreme heat. One-third of the crop is reported as useless. They are coloring too early, and will not keep long.—Chas. F. Adair, Catarqui.

LENNOX AND ADDINGTON

Napanee.—Tomato crop is not as large as was expected; the fruit is not ripening as it should, but there will be a fair crop. Potatoes are rotting badly. Onions are a poor crop, owing to blight. Cabbage is practically a failure, owing to maggot in early spring. Cauliflower, beets, radish and other garden truck will compare favorably with other years.—E. M. Sherman.

PRINCE EDWARD COUNTY

West Lake.—Tomatoes are short of what was expected. Potatoes are a good crop. Corn not as good as expected.—Stephen Lake.

TORONTO DISTRICT

Humber Bay.—Hot, dry weather has hurt the tomato and cucumber crop, which will be light. These crops are too far gone for rain to do much good. Onions will be of first-class quality, but small in size. Root crops are holding their own. Late cabbage is suffering for want of rain. Early cauliflower are poor. On account of the high breeding of the stock sent out by seedsmen, the foliage is small, scarcely enough to cover the heads. The outlook for late cauliflower is not very bright. Late corn is doing well. Celery is an abundant crop, of good quality, and free from blight. Squash

is a good large crop. Early potatoes are almost all dug. Late potatoes are a light crop, and scarce on the market. Prices have gone up to 80c. a bu., and will reach \$1 by end of the month. Prices for vegetables vary every few days; the following are for Aug. 22: Lettuce, 15c.-20c. a doz.; cucumbers, 25c.-40c. a bu.; tomatoes, 40c.-50c. a bu.; beans, 75c. a bu.; onions, choice white pickling, \$2.25 a bu.; Yellow Danvers, 75c. a bu.; beets, 30c.-40c. a bu.; carrots, 50c. a bu., or 10c. a doz. bnchs.; corn, 5c.-8c. a doz.; celery, 25c.-50c. a doz., cabbage, large size, \$2.00 a hundred.—J. W. Rush.

Doncaster.—Crops promise to be good. Although onions have blighted considerably, they will be a fair crop. Celery is suffering from blight. Cauliflower, cabbage, carrots, beets, parsnips and cucumbers are doing well. Tomatoes are a good crop, but are showing some rot. Late cauliflower promises to be extra good.—C. Gibbard.

Bracondale.—Crops in general are looking exceedingly well. Early tomatoes are about all over owing to the need of rain; late varieties, such as the pinks and larger kinds, are looking and picking much better than at first expected. Seed onions will be an average crop. Prize-takers, badly blighted, with the sample small. Late cabbage and cauliflower are in fine shape, but need rain to mature nicely. Celery is slightly blighted, but probably will pull through. Prices are good for the summer season.—A. W. Shuter.

PEEL COUNTY

Clarkson.—The early potato crop is good, and prices also good; late potatoes not so good. Sweet corn, a big crop with prices low. Onions on light soil have suffered from drought; on heavier land, looking well.—W. G. Horne.

HALTON COUNTY

Burlington.—Late tomatoes have suffered from drought; the rain of August 20 has helped it somewhat. Early tomatoes were not as heavy in yield as last season but prices were good. Onions will not be more than $\frac{3}{4}$ of the crop they were last season, due to hot and dry weather. Transplanted onions are doing better than seed patches. Late potatoes do not promise more than $\frac{1}{2}$ a crop. Celery, about the same as last year—with prices better. Peppers are an average crop, with prices none too good—too large an acreage. Egg plants are a fair crop and paying about the same as last season. Late cauliflower and cabbage promise a good crop, if weather from now on is favorable.—J. A. Lindley.

HAMILTON DISTRICT

Hot and dry weather has threatened the tomato crop, but the heavy rains of Aug. 20 helped it considerably. However, the yield will not be as large as last year. Dry rot is ruining a large part of the crop and, besides, the blossoms and small fruit do not appear to be as prolific as in other years. Potatoes, selling at 90c. per bu., would lead one to believe the crop is a failure; while it may be light in other sections, the yield here appears to be fair. Onions are only a fair crop. Celery is fair. Early cauliflower is a poor crop. Late cauliflower and cabbage will improve after the recent rains.—Jas. A. Stevens.

LINCOLN COUNTY

St. Catharines.—No rain has fallen during the past month, only a few light showers, barely sufficient to lay the dust. Everything is suffering severely. If drought continues the result will be serious in many respects, although, indirectly, good may result. One of the benefits will be in raising the price of tomatoes. Last season tomatoes were a good crop and growers who do not look ahead, or who do not indulge in the pastime of using their brains as much as their hands, were falling over each other in signing contracts for growing tomatoes at 25 cts. a bu. for the season; as a result, all the growers had

to accept 25 cts. The shortage this season will force prices up. The contract price for 1907 should be 30 cts. No grower should sign a contract for less before March 1, 1907.

Melons are ripening, but small in size. Onions are drying up and will only be a half crop, but should cure well. Potatoes, early, are a fair crop; medium, will be of good quality, but under average; while late look like a failure. Carrots, fair. Sweet corn will be very small and short in the ear. Tomatoes have been affected more or less with the black rot; blight is now showing; unless rain follows soon, the size of tomatoes will be small and the crop about one-half of average. The exception to this is that all crops on well-cultivated fields show a fairly good yield and impresses the lesson of the necessity for getting the land in good shape early in the season and following it up with thorough cultivation. Fruit looks fairly well, with a tendency to some small specimens; grapes look remarkably well.—Robt. Thompson.

WELLAND COUNTY

Niagara Falls South.—Garden crops need rain; have had only a few light showers since July 3. Beans are entirely dried out. Cabbage and cauliflower are making slow growth. Celery is suffering much from want of rain. Onions, almost matured, undersized, about half a crop. Lettuce and other salads almost ruined by the intense heat. Corn also shows signs of the drought; early corn, good; late, poor to medium. Cucumbers, fair. Melons, peppers, egg plant, squash, extra good. Early tomatoes, big crop, badly sun scalded, but eagerly bought by canners. Late tomatoes, except on moist, low-lying soil, are suffering badly from dry rot; in fact, some patches will be entire failures. The prospects for a good crop of late tomatoes have decreased 50% since last report. Second early potatoes, $\frac{1}{2}$ crop; late, without rain soon, will be no better. Roots are fair.—Thos. Stokes.

BRANT COUNTY

Scotland.—The onion crop is discouraging, owing to continued hot and dry weather; the crop is ripening fast and the onions have not fully developed. The estimated acreage of onions is 130 acres. Due to dry weather, also, the tomato crop is almost a failure. The potato crop is likewise threatened, and there is also danger to fruit. The rain of Aug. 20 may improve matters.—E. G. Malcolm.

KENT COUNTY

Chatham.—All kinds of vegetables are plentiful. June-planted potatoes are suffering from the drought and the yield will be materially lessened; early potatoes have been fairly plentiful and the prospects are for high prices. Onions are a fair crop, but as the acreage is smaller than usual, there will not be many for export. Sweet corn is very abundant. Cucumbers are yielding well on the sandy soils, but on clay they are commencing to dry up. Muskmelons promise to be a large crop, both in numbers and size. In some sections, grasshoppers are damaging the crops, especially tomatoes, which are very plentiful; the later crop may not be so plentiful. Celery crop looks well and of a fair sample; rain is needed for blanching.—Fred Collins.

LAMBTON COUNTY

Sarnia.—Late potatoes not a good crop on account of the blight; second early were a disappointment, small and only half a crop. Late cabbage are doing well, but not as large an acreage as usual. Second early, plentiful and cheap. Onions, that were left by the maggot, have done well; the acreage is under the average. Tomatoes, just beginning to come in freely; about an average crop. Sweet corn, good crop. Turnips, good, but not grown extensively. Other vegetables usual quantity and in fair condition.—W. A. Broughton.

The New Experiment Station

The paramount topic of conversation among fruit growers in the Niagara peninsula, is the new experiment station. I have heard a medley of opinions on the fitness of the location and soil for experimental purposes. Some men heartily approve the choice; others condemn it. A summing up of the general feeling would show that, while the farm is not ideally suited for the purpose, the majority of growers are satisfied with the selection.

"Provided that a railway station be located on the Clinton-Louth township line," said E. D. Smith, M.P., Winona, "I think the provincial government acted wisely in accepting the Rittenhouse offer. I am told that the farm is a good fair average for fruit growing. Both climate and soil are very good, although not ideal. The choicest location, however, is not the best for experimental purposes. I hope that the government will go into the problems of hybridization and the introduction of new varieties in a whole-hearted manner. With this end in view a very high-class man as director should be employed."

Mr. Geo. F. Lewis, Winona, said that Mr. Rittenhouse's offer, being so generous, could not be overlooked since the farm itself is all that could be required. It contains a variety of soils, which is desirable for experimental work in fruit growing.

"The government has made a good selection in accepting the Rittenhouse farm," said Mr. J. W. Smith, Winona. "I consider the section in the vicinity of that farm one of the best in Canada for fruit growing, particularly peaches and strawberries. If the farm consists of a variety of soils, such as it is said to do, then it is about all that could be desired. I doubt if a suitable farm for the purpose could be secured in Grimsby or Winona, because for experimental purposes a farm not planted is required."

"Although rather out of the way, the farm is centralized and should be acceptable to the entire Niagara district," is the opinion of Mr. Geo. Chambers, Winona. "If an electric railway goes through that neighbourhood within the next three or four years, the locality is all right."

Directly opposed to the foregoing interviews are the opinions of Mr. A. B. Foran, Winona, and others here and there throughout the peninsula. Mr. Foran said: "The new experimental farm is very poorly located. It is difficult of access and the soil, as far as I can learn, is decidedly objectionable. If the farm was selected with the idea of forming a compromise between the eastern and western ends of the district, it has failed in its purpose; because neither end is satisfied."

"I think it was a mistake to locate the farm without consulting a representative body of fruit growers," said Mr. W. M. Orr, Fruitland. "The location for such a farm is best selected by men who know the A.B.C. of fruit growing. The cost of the land is a mere bagatelle, and the fact that a farm is offered to the government free of cost, though generous and commendable in itself, should be the last consideration. For experimental purposes, the Rittenhouse farm cannot be compared to others in the same section located directly under the mountain and exempt from frost. Another point that apparently was not taken into consideration when making the selection is the fact that the Rittenhouse farm, located as it is on the lake, is at least a week later than farms located nearer the mountain. This fact alone may mean the shutting out of some valuable fruit."

Two prominent fruit growers from the Winona-Grimsby district personally visited the farm and found to their own satisfaction that there is very little soil there suitable for peach growing,

and that is an important consideration in the selection of a farm for experimental work in this district. Less than 20% of the surface soil is sandy in character and this is resting upon a high, hard pan.—A.B.C.

Subscribe now and get The Horticulturist for almost nothing. See announcement in this issue.



Fifty Thousand Apple, Pear, Plum and Cherry Trees for Fall Planting

best that grows. Our stock is grown You can buy it We will pack it

We ship to planters direct from the Nursery not the most but the See Illustrated Price Catalog Free.

Right Ornamentals Shrubs, Roses etc. Write us—

A. G. Hull & Son, St. Catharines, Ont. Mention The Canadian Horticulturist when writing

Apples for Export

REPRESENTING

Thomas Russell, Glasgow
J. & H. Goodwin, Manchester
J. C. Houghton & Co., Liverpool and London

Will be pleased to keep you advised regarding the condition of the European Markets. If you have any Apples for export call or write

FRED. BARKER

25 CHURCH ST. TORONTO, CAN. Mention The Canadian Horticulturist when writing

You Can't Count Your Chickens Before They Are Hatched

But you can count on the Nursery Stock we send out, being grown from selected scions and buds, which with reasonable care will produce good fruit in abundance

Fruit Trees or Ornamental Shrubs from our Nurseries of every variety are of the dependable, satisfaction-giving kind

The Helderleigh Nurseries

E. D. SMITH, WINONA, ONT.

Mention The Canadian Horticulturist when writing

APPLES WANTED FOR EXPORT

REPRESENTING

JAMES ADAM, SON & CO., LIVERPOOL
JAMES LINDSAY & SON, LIMITED, GLASGOW
NORTHARD & LOWE, LONDON
MANCHESTER FRUIT BROKERS, LIMITED
MANCHESTER

These are the largest and most reliable fruit merchants in Great Britain. Your interest demands the securing of our prices and terms of sale before selling your crop. . . . Write to-day Market cables received every sale day

Telephone Main 5131

A. E. W. PETERSON

APPLE BROKER

27 CHURCH STREET TORONTO

CANADA

Mention The Canadian Horticulturist when writing

A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.

Items of Interest

At the Winnipeg Indus. Exhbtn., the B.C. fruit exhibit attracted a great deal of attention. It was a credit to the province.

Mr. M. R. Baker, B.S.A., Guelph, has been appointed to a position at Ottawa, as assistant to Mr. Alex. McNeill, Chief, Fruit Division.

Apple packers are warned against misunderstanding the Fruit Marks Act. If you are in doubt, write to the Fruit Division, Ottawa, or to THE HORTICULTURIST for information.

The 10th annual exhibition of the Kincardine Horticultural Society was held on Aug. 30. The display of cut bloom, flowering and foliage plants was up to the average and did credit to the flower lovers of Kincardine.

Four new subscriptions for The Canadian Horticulturist for only \$1.00. Can't you get up a club?

On Aug. 15, the Hamilton branch of the Ont. Veg. Grs. Assn. held its annual picnic at the Hotel Brant, Burlington. Several thousand people attended. Hon. Mr. Monteith, Minister of Agriculture, was present and spoke.

Mr. Bois, the B.C. fruit expert, that gave demonstrations in fruit packing last year for the Dom. Fruit Division, is now engaged to superintend apple packing operations for Mr. R. J. Graham, of Belleville.

The Evaporator Manufacturers' Association of Ontario held a meeting in Toronto recently and elected officers for the ensuing year, as follows: Pres., Geo. Mahler, Bothwell; vice-pres., R. J. Graham, Belleville; sec.-treas., O. E. Robinson, and 6 directors. The inspector is J. R. Finkle, Bowmanville.

Early in Aug. a conference was held in Toronto between a delegation representing the fruit growers and the traffic officials of the C.P. and G.T. Rys. Arrangements were discussed that will lead to a better handling of fruit in shipment to the west and to the seaboard.

At Scotland, Ont., a branch of the Ont. Veg. Grs. Assn. was formed in Aug. The officers are: McKenzie Malcolm, pres.; Fred. Smith, vice-pres.; E. G. Malcolm, sec.; and Samuel Hunter, director. At the initial meeting, 16 growers became members and it is expected that others will join soon.

Mr. J. P. Taylor, of Cape Town, South Africa, is in Canada buying apples for shipment to South Africa. He visited THE HORTICULTURIST and said that he wants good fruit and will pay good prices for it. Only the best stock is admitted to South Africa, as the law requires that all apples affected with disease or worms shall be destroyed at the port of lading, without recompense to the shippers.

In the vicinity of Colborne, Ont., which is one of the leading apple sections of the province, most of the largest orchards have been sold as they stand. The buyers will do the picking and packing, and the growers the hauling. Among the orchards sold are those of Jas. Thomas, for \$1,125; John Coulter's, \$1,000; Wilbert Eddy's, \$1,000; John Usher's, of Wicklow, \$750; Wilber Winter's, of Wicklow, \$850; Chas. Doolittle's, of Wicklow, \$450, and Dr. Robertson's, of Colborne, \$450. All these orchards are within a radius of four miles.

We are offering The Canadian Horticulturist during September for a mere song. A postal note to the tune of \$1.00 will pay for 4 new subscriptions for a year.

A series of demonstrations in box-packing is being given in Ont. by Mr. Stewart, an expert from Oregon, brought by the Fruit Division specially for the purpose. The schedule so far for this month is as follows: Sept. 1, Oakville; 6, Walkerton; 7, Owen Sound; 8, Thornbury; 10, Orillia; 11, Brighton; 12, Newcastle; 13, Oshawa. Demonstrations, also, will be given at the Toronto Exhibition on Sept. 3-4 and at the Niag. Dist. Exhibition in St. Catharines, on Sept. 14-15. The method of packing practised by Mr. Stewart differs from the one in Ont. One side, instead of the top, is removed, so that the contents may be readily seen and inspected. As there is less pressure on the sides than the top, the former may be taken off and replaced with greater ease.

See our special subscription rate for September. Clubs of four new subscriptions for 1 year accepted for \$1.00.

In a letter to THE HORTICULTURIST, Mr. Francis Wayland Glen, of Brooklyn, N.Y., writes: "I have taken THE CANADIAN HORTICULTURIST for 20 years and only once in that time have I failed to receive my number regularly. I did not receive the one for July; kindly send me a copy. Fruits of all kinds are fine this year, and the price remains high for prime quality. The demand for the best is never fully supplied. We should have free trade in fruits between Canada and the United States. It will come soon. We are getting tired of monopoly. We are entering upon a radical revolution. We shall restore to power and influence the Declaration of Independence. I wish THE CANADIAN HORTICULTURIST great prosperity."

At a meeting of the shareholders of the Hamilton, Grimsby and Beamsville Railway, recently, it was definitely decided that the route of the proposed extension of the line to St. Catharines would not be by way of Vineland.



WAGGONER EXTENSION LADDER

enables you to hand-pick all the apples on the tree. Its extension feature permits it to run through the tree—not only to rest on the outside.

Good for every purpose about a farm that a ladder is used for.

Very light and absolutely safe.

**Waggoner
Ladder Co.,
Limited**

London Ont

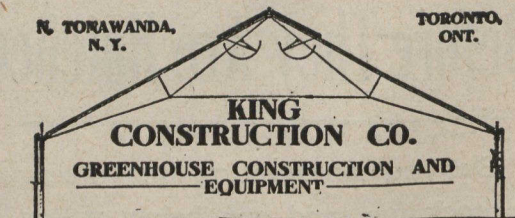
Order at Once

WE ARE BUSY—ORDER AT ONCE—SEND FOR CIRCULARS

Mention The Canadian Horticulturist when writing

N. TORAWANDA,
N. Y.

TORONTO,
ONT.



Permanent structures best and cheapest to build. Ventilating, Heating and all other Accessories for Greenhouse Equipment.

For Catalogues and Particulars apply to

The King Construction Co.

32 CHURCH ST., TORONTO

Mention The Canadian Horticulturist when writing

A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.

British Columbia Growers

The members of the B.C. Fruit Growers' Association work along lines differing from those of the members of any of the other fruit growers' associations. The membership of this association in 1905 was 100; the fee is \$1 a member, the same as in other similar associations. The work of the association was explained to THE HORTICULTURIST by the secretary, Mr. W. J. Brandrith, while at Ottawa attending the fruit conference.

"We have branch associations of nine or more members each," said Mr. Brandrith. "Each member pays the main association 50 cts. The members of these branch associations enjoy all the benefits of membership, except that they are not allowed to vote at the association meetings, nor to hold office. We endeavor to make the association of as great value as possible to each member. One feature of our work which has been appreciated is the furnishing to the growers, the ratings of the commission dealers in the cities of B.C., Alta., Sask., Man. and the Yukon. We subscribe for Bradstreet's and get all its reports. These reports and our subscription costs us \$75 per year. The members who are planning to make consignments of fruit to any dealers, and desire to know their financial standing, write me for the same, and I will get the reports and furnish them to the growers. This is a very popular part of our work.

"We also purchase supplies at wholesale prices and furnish them to our members at reduced rates. Early in the season, a price list of spraying materials, etc., is furnished to each member. They are offered the opportunity to purchase sulphate of copper, sulphur, Paris green, Gillett's lye, powdered hellebore, tissue paper for wrapping apples, peaches, pears, and tomatoes, plum paper, lining paper

and cardboard. Goods are sold at 30 dys. net. Last year we sold pure Paris green in 10 lb. lots at 28 cts. per pound. We sold last year about 1½ tons pure Paris green, and 2½ tons sulphate copper and whale oil soap. We believe we have saved our members 15 to 20 per cent. on prices. Last year our Government grant was \$1,250; this year we have asked for it to be increased by \$750."

Subscribe now and get The Horticulturist for almost nothing. See announcement in this issue.

Sour Cherries—A Good Investment

Charles H. K. Baillie, F.R.H.S., Winona, Ont.

When one figures out the gross returns of a sour cherry orchard, planted on the right kind of soil, there is an inclination to go over one's calculations again, under the suspicion that there has been some error. A gross return of \$2,520.00 from an orchard of 200 Montmorency cheery trees is an astounding estimate, but such is the case with a small orchard on Mr. E. D. Smith's fruit farm at Winona. The trees were planted about 14 years ago, from stock propagated on Mr. Smith's nurseries, and they received such treatment as any other orchard of sour cherries should receive.

From the time of first fruiting they have increased in yield every year, and this season the orchard averaged 14 baskets to a tree. They have received but one application of spray mixture this year, and that was Bordeaux, but, in spite of this scant spraying, there is scarcely a trace of rot. There is a pronounced difference in the size of the fruit of those trees which were pruned and those that were not, the former being the larger. Taking into consideration the superiority in size of fruit, it will be interesting to know how the yield of the pruned trees will compare with that of the unpruned ones. At a later date, further details will be furnished.

How to Pack Apples for Export

The following directions for packing apples for export have been issued by Mr. Eben James, Toronto. Particular attention is directed to the practice of racking the barrels after they are filled, not before:

The rule most observed by the largest export packers in Canada is to discard the old system of leaving apples to sweat in the orchard, believing that generally detrimental to keeping qualities, but pack as picked off the trees. As the apples are picked they are placed on a canvas table resembling a camp-bed, the firsts and seconds sorted out and culls discarded. The barrel should be placed on a plank, and the quarter hoops properly tightened and nailed. Apples of a good average size, not the largest nor smallest, but uniform, should be selected for the face, and placed stem-end down at the bottom of the barrel (after stems have been removed from face apples only), which should be covered as far as possible without leaving unnecessary holes; follow with a basket selected same as face, then fill in with standard fruit (per requirements) till half full; the barrel should then be jarred, but not shaken enough to displace the face and as each additional basket is filled in it should be jarred. WHEN FILLED IT SHOULD BE WELL RACKED WITH A CIRCULAR BOARD HAVING A PAD ON ONE SIDE. See that apples when well racked will be hardly an inch above barrel, carefully turn stem-ends up, with the exception of outer row, which are better blossom up; arrange proper sized apples so that any holes are filled, making barrel present an even surface slightly rising to centre, thereby insuring even pressure. Press in head, line and

nail carefully, cut nails preferred. Brand neatly faced end.

Packer must be governed by variety of apples in height in barrel when pressing. Examine occasionally when packing, and if you find (providing you have racked well) that skin is severely dinged or broken, press lighter. Storage apples need very little pressing.

At the convention of the International Apple Shippers' Association, held early in Aug. at Niagara Falls, N.Y., many important topics of interest to Canadian apple men were discussed. The crops of Canada and the U.S. combined was estimated at 60,000,000 bbls. of good quality.

R. & W. Davidson

GLASGOW, SCOTLAND

Fruit and Produce Exporters

Invite correspondence regarding Canadian Apples in boxes for shipment during the coming season. Sales made direct by private bargain. No sales made by auction. Satisfactory references to Ontario shippers.

H. Beckett & Sons, Hamilton, Ont.
W. F. W. Fisher, Burlington, Ont.
Geo. E. Fisher, Burlington, Ont.
R. C. Fowler, Burlington, Ont.
Albert Pain, Hamilton, Ont.
A. Pettit & son, Grimsby, Ont.

Mention The Canadian Horticulturist when writing

— TO —
Apple Shippers

BUDGETT, JAMES & CO.
LIMITED

Fruit Brokers and Importers

BRISTOL, ENGLAND

Charges Moderate. Correspondence Solicited.

Cable Address—"Landscape," Bristol

Mention The Canadian Horticulturist when writing

CABLES: "PANKHURST, LONDON"
A.B.C. CODE 4TH EDITION

D. D. PANKHURST

FRUIT BROKER AND AUCTIONEER

Covent Garden Market, London

Consignments Solicited Apples a Specialty
Top Market Prices

BANKERS: LONDON & COUNTY LTD., COVENT GARDEN
Mention Canadian Horticulturist when writing

Furness, Withy & Co.

LIMITED
Steamship Agents and Brokers
MONTREAL

MANCHESTER LINERS, LTD.

Fortnightly Service From Montreal to Manchester

Canada—South Africa, Joint Service

Monthly Sailings
Montreal to South African Ports

Mention Canadian Horticulturist when writing

H. H. & S. Budgett & Co., Ltd.

BRISTOL, ENGLAND

Importers of Canadian Apples, liberal allowances made to reputable shippers, on bills of lading at Montreal. Write at once for further particulars regarding our method of disposing, and payment for first-class Canadian Fruit.

Mention The Canadian Horticulturist when writing

WE CAN HANDLE YOUR CONSIGNMENTS

whether large or small, to the best advantage on Toronto Market. Stamps and pad furnished. We will gladly answer any correspondence.

THE DAWSON COMMISSION CO.
TORONTO LIMITED

Mention the Canadian Horticulturist when writing.

CREIGHTON POULTRY YARDS

Barred Plymouth Rocks and White Wyandottes

Three pens of laying stock for sale, \$15.00, each consisting of eight females and one male; two pens barred Rocks and one pen of white Wyandottes. A good opportunity to acquire a handsome pen for a summer home. High-class young stock for sale. Write for description and prices.

S. SHORT, Proprietor - OTTAWA, ONT.

Mention the Canadian Horticulturist when writing

Parliament and the Fruit Industry

In the House of Commons, during the debate of the estimates of \$150,000 for "the development of the live stock, dairying and fruit industries, the improvement of seeds and the promotion of the sale of food and other agricultural products," many subjects of interest to fruit growers were mentioned. Mr. J. E. Armstrong, M.P. for Lambton, said:

"We have been urging the minister to establish experimental fruit farms in the Niagara peninsula; many of his supporters from that district have been urging on him the importance of establishing such farms, but the minister has paid no attention to their appeals. In that part of the country another thing that we need is a separation of the departments of fruit and dairying. Again and again the minister has been urged to separate the dairy and fruit departments, but he continues to keep them under one head. Urgent requests have been submitted to the minister to effect the separation. How can he expect that Mr. Ruddick, Dairy Commissioner, can give proper attention to the fruit industry while, at the same time, he is expected to give full attention to the dairy industry?"

On another phase of the question, not directly referring to the administration of the fruit division, though concerning the industry, Mr. Armstrong said some interesting things. Speaking of the fruit industry he said: "This industry should be developed by 50%. Apples are the easiest products to be shipped, and our country is well adapted to the growth of this fruit. Yet the minister remains with folded arms, though opportunities present themselves for an extension of our market to Germany, which took \$400,000 worth of our apples last year, and will, probably, be ready to increase that amount. The hon. gentleman says that if Emperor William will send his representative, he, the hon. minister, will communicate with that representative, but he is not going to open negotiations with a view to extending this market for our fruit growers. Let him look to the U.S. and see what they have accomplished. They were in the same position, with reference to the German tariff, as Canada is. But, a few months ago, they made arrangements with Germany whereby their apples go into that country at a great advantage over ours. The outcome of the minister's policy will be that we shall have only one market to which to ship our product. The German market is closed against us; practically, our only market is the market of Gt. Britain, which is open to the whole world as freely as it is to us. I feel confident that the time is coming when the Min. of Agric. and his government will have to take more definite action, to open the markets of the world to the products of the Canadian farm."

Keeping Quality of Plums

That some plums are much superior to others in keeping quality has been proved by Mr. Auguste Dupuis, director of the fruit experiment station, Village des Aulnaies, P.Q. Several varieties were set in a shed when picked, and some were found to be much more valuable as long keepers than others. Without cold storage certain varieties can be kept for some time and sold at a high price.

Over 50 varieties of European and American seedlings fruited last summer and fall. The Mirabelles, Bradshaw or Niagara, Grand Duke, Washington Lombard, Quackenboss, Hudson River, Dawson and Reine Claude de Montmorency bore a very large crop.

"As soon as they ripened," Mr. Dupuis writes THE HORTICULTURIST, "I kept plates of each variety on shelves in a cool outhouse, to find out how long they would remain in good condition. The first to mature were the Jaune

hative, the Jaune très hative and Favorite hative, August 10 to 12, about three weeks before Green Gage and Washington. The last we picked were the Grand Duke, Coe's Golden Drop, R. Claude de Bavay and de Norbert, dark blue and round. This was on October 10 and 12. A big frost on October 11 damaged the Pond Seedlings, but did not injure the de Norbert, a valuable variety."

See our special subscription rate for September. Clubs of four new subscriptions for 1 year accepted for \$1.00.

Items of Interest

The Toronto branch of the Ont. Veg. Grs. Assn. held its 8th annual excursion on Aug. 1, to St. Catharines. Over 600 persons availed themselves of the opportunity for a trip across the lake and an enjoyable outing. An excellent orchestra was in attendance and the day was spent in playing games, running races and doing many things that people are wont to do when taking a holiday. So large was the crowd that an extra boat had to be run to carry the people home. Before boarding the first boat, some unpleasant things occurred that resulted in a brief fight, reports of which, in the daily press, were greatly exaggerated. It is to be feared, however, that such reports may have been founded in part on the fact that the association permitted whiskey and wine to be offered as prizes in a few events, and THE HORTICULTURIST would suggest that such opportunity for criticism be not permitted at future gatherings.

Recently a committee appointed by the Ont. Veg. Grs. Assn. visited the O.A.C., Guelph, to gather information on what is being done at that institution for market gardeners. Another committee has been commissioned to visit the C.E.F., Ottawa, for the same purpose. This committee is comprised of three growers, Messrs. S. Baker and D. Smith, of Ottawa; and Mr. R. J. Bushell, the president of the Kingston branch.

An expert from the dept. of agric. at Washington, recently visited the trial grounds of Mr.

H. H. Groff, at Simcoe, Ont., for the purpose of microscopic study of the methods of reproduction of the original wild species that enter into the composition of Mr. Groff's improved gladioli. The selection of Mr. Groff's production by the U.S. Dept. of agri., is a marked compliment both to Mr. Groff and to Canada.

It is reported that a large apple orchard, about 600 acres, will be operated a short distance from Montreal. The company is capitalized at \$300,000. A Dominion charter has been secured under the name of the Dominion Orchard Co., Ltd. Arrangements have been made with several large European importers to take over the entire output of the orchard for several years.

On Aug. 14, the new experimental farm in the Niagara district was officially opened. Many prominent persons were present, including Hon. Nelson Monteith, Min. of Agric., Toronto; Pres. Creelman, O. A. C., Guelph; G. A. Putnam, Supt. Farmers' Institutes, Toronto; E. D. Smith, M.P.; E. A. Lancaster, M.P.; Dr. Jessop, M.L.A.; Mr. M. F. Rittenhouse, the donor, and others. An all-day picnic and an afternoon of speeches in Victoria Hall, made the occasion a pleasant and an important one.

Notwithstanding the failure of some of the shipments to Australasia last year, reports J. S. Larke, Canadian Commercial Agent, Sydney, N.S.W., there is likely to be inquiries for good Canadian apples in October. The prosperous condition of Australia has increased the number of purchasers of high-class fruit, hence there will be a demand for an increased quantity, for which good prices will be paid. Mr. Larke writes also that the crop of potatoes in New Zealand is much below what was expected. As a consequence, prices have gone up. In October and later, there will be a demand for any surplus Canada can supply, at good rates.

The Canadian Horticulturist, the national fruit, vegetable and flower journal of Canada: 50 cts. a year, or 3 years for \$1.20.

Baskets

We are Headquarters for all kinds of Splint Baskets

VENEER

supplied for the protection of trees from mice during winter

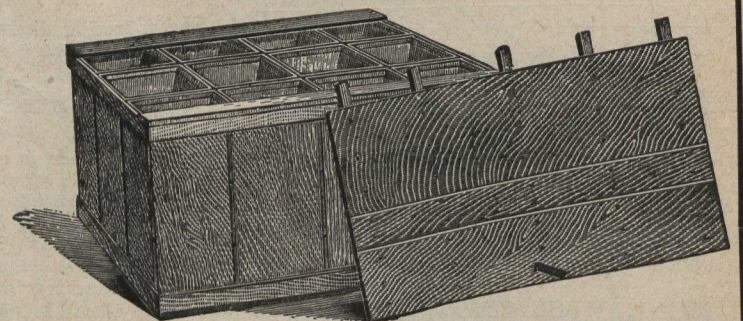
FRUIT PACKAGES

A Specialty

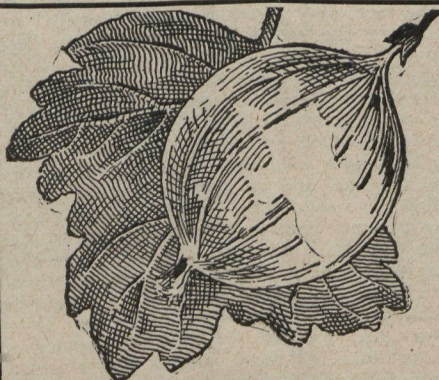
SEND FOR OUR PRICES

THE OAKVILLE BASKET CO.

OAKVILLE, ONTARIO



Mention The Canadian Horticulturist when writing.



Small Fruit Plants

Gooseberry, Red, White—Currants, Red, White, Black—Raspberry, Red, Yellow—Blackberries—Strawberry-Raspberry—Grapevines, Campbell's Early, Eaton, Worden, Moore's Early, Salem, etc., all hardy sorts—Strawberry Plants—House Plants—Roses—Rhubarb and Asparagus Roots—Order early.

WM. FLEMING
NURSERYMAN

P.O. Box 54 OWEN SOUND, ONT.

Notes

The "Youthful Poppy Fancier," illustrated in this issue, is the bright little son of Mr. W. C. McCalla, of St. Catharines.

The illustration on the front cover of this issue of THE HORTICULTURIST, was kindly furnished by Mr. Maxwell Smith, D.F.I., Vancouver.

At a recent meeting of the Ottawa branch of the Ont. Veg. Grs. Assn., the aspects of the civic market by-law prohibiting the purchase or forestalling of market produce before the hour of 8 a.m. in the summer and 9 a.m. in winter were considered. It was the feeling of those present that the by-law should be done away with.

"Target Brand."—The results of different tests of this Scale Destroyer by some of the largest orchard companies in the United States very conclusively demonstrate the facts as we advertise them. It has been tried alongside the home-made and proprietary remedies of the best class and, in every instance has outdone the whole of them. It seems to be the most deadly of all oil preparations yet produced and yet does not penetrate the bark nor do the least damage to either trees or buds. I have personally seen trees where it was applied when the buds had swollen considerable and not the least damage resulted. Its action on scale pests is slightly by penetration through their breathing pores, but mainly by the formation of a film which, though positively fatal to them, does not in the least interfere with the functions of the barks of the trees on which it may be applied.—W. H. Brand, Jordan Station.

THE HORTICULTURIST would direct attention to the Syringa purpurea maculata which is now offered for sale, and for the first time in Canada, by Stone & Wellington, Toronto. It is a variation of the popular "mock orange," but, instead of being a common white, it has a beautiful purple centre, the base of each petal being a blotch of purple, forming a ring of purple around the centre of the flower, making it an exceedingly distinct variety. This new spring-flowering shrub with a touch of color, comes very acceptable, as white flowering shrubs in spring are becoming tiresome

**SPRAMOTOR
NONE BETTER**

NO MORE BLIND HORSES For Specific Ophthalmia, Moon Blindness and other Sore Eyes, BARRY CO., Iowa City, Iowa, have a cure.

Windsor Cheese Salt

- will salt more curd at less cost
- will salt the curd thoroughly and evenly
- will insure the cheese being firm and smooth

Windsor SALT

- will "keep" the cheese better, and preserve its rich flavor.

It pays to use WINDSOR SALT for cheese making, as you will find out after your first trial. Your dealer has it, or will get it for you.

FOR SALE AND WANT ADVERTISEMENTS

Advertisements under this heading inserted at rate of one cent per word for each insertion, each figure, sign or single letter to count as one word, minimum cost, 25 cents, strictly cash in advance.

EIGHT BEAUTIFUL IRISES for Fall Planting. Send \$1.00 for following choice collection free by mail, this month, Augustina, Celeste, Eugene Sue, Hector, L'Avenir, Liband, Sampson, Silver King. Address C. ERNEST WOOLVERTON, Hardy Perennial Gardens, Grimsby, Ont.

TENDERS will be received by the undersigned up to the 30th September, 1906, for the sale of the Greenhouse or Conservatory, including the furnace and piping appurtenant thereto. They may be inspected by any interested party at Number 374 Victoria Street. A. R. DENISON, Architect, 18 and 20 King St. West, Toronto.

LANDSCAPE GARDENING, PLANS FOR PARKS, cemeteries, public or private grounds. Drawings made to scale. Any gardener may carry them out. Correspondence solicited. CHAS. E. WOOLVERTON, Landscape Designer, GRIMSBY.

WANTED—Persons to grow Mushrooms for us in waste spaces or barns, in gardens, orchards or small farms. \$15 to \$25 per week. Send stamp for sixteen-page illustrated booklet on Mushroom Culture and full particulars. MONTREAL SUPPLY CO., MONTREAL.

PROPERTY FOR SALE—Situated in Lundy's Lane, Township of Stamford, about one mile from city of Niagara Falls. It contains twenty acres, garden and fruit in bearing, in good cultivation. Possession in December. Apply for any information to MRS. E. J. LAW, Niagara Falls South.

MEXICAN PLANTS

Orchids and Cacti, Bulbs and Seeds Etc.

Well illustrated and descriptive Culture Catalog sent on receipt of 10 cents in postage stamps

J. BALME & CO.

Mexico City (Mexico)

Mention The Canadian Horticulturist when writing

NOTICE TO APPLE AND FRUIT GROWERS

Why have all your goods sold by auction? Send direct to the people inland.

WM. PALEY & SON, LEEDS

Established Over 55 Years

Best goods only required. Highest price obtained. Correspondence desired with growers.

Mention Canadian Horticulturist when writing.

USE FOSTER'S POTS

STRONG
DURABLE
LIGHT



POROUS
AND
SMOOTH

Drop us a post card for Catalogue and Price List.

The Foster Pottery Co., Limited
HAMILTON - ONTARIO

**MARCHMENT'S
Sure Growth
COMPOST**

Supplied to the largest nurserymen and fruit growers in Ontario. Shipments by car at reasonable prices.

S. W. MARCHMENT
19 QUEEN ST. EAST, TORONTO
Telephone Main 2841 Residence Park 951

John B. Smith & Sons

Limited

Cor. Strachan and Wellington Aves.
TORONTO



Manufacturers
... of ...
LUMBER
LATH
SHINGLES
DOORS
SASH
BLINDS
SILOS, ETC.

Clear Cypress for Greenhouse Work
Mention The Canadian Horticulturist when writing

SUCCESS ASSURED

THE NIAGARA DISTRICT HORTICULTURAL EXHIBITION

TO BE HELD AT

St. Catharines, Sept. 14-15, '06

SPECIAL RATES ON RAILWAYS

UNDER THE AUSPICES OF

☐ The Niagara Peninsula Fruit Growers' Association, The Southern Ontario Fruit Growers' Association, St. Catharines Horticultural Society, Niagara Falls Horticultural Society, Grimsby Horticultural Society, Hamilton Horticultural Society, Burlington Horticultural Association, Jordan Station Fruit and Vegetable Growers' Association, Township of Grantham Vegetable Growers' Association, Hamilton Vegetable Growers' Association, Ontario Fruit Growers' Association, and the Ontario Vegetable Growers' Association

UNDER THE DIRECTION OF

The Ontario Department of Agriculture

The Band of the XIX Regiment will furnish music each day.

Hon. Nelson Monteith, Minister of Agriculture, and the Deputy Minister of Agriculture for Ontario, have been invited to attend.

The largest display of Fruit, Flowers and Vegetables ever held in the Niagara District.

OVER \$1,000 IN PRIZES

\$580 ^{in Prizes} _{for} Fruit — \$300 ^{in Prizes} _{for} Flowers — \$160 ^{in Prizes} _{for} Vegetables

NUMEROUS SPECIAL PRIZES

FOR PRIZE LISTS AND OTHER INFORMATION WRITE TO

E. T. REID (Secretary)
ST. CATHARINES, ONT.

W. B. BURGOYNE (President)
ST. CATHARINES, ONT.

Mention The Canadian Horticulturist when writing.

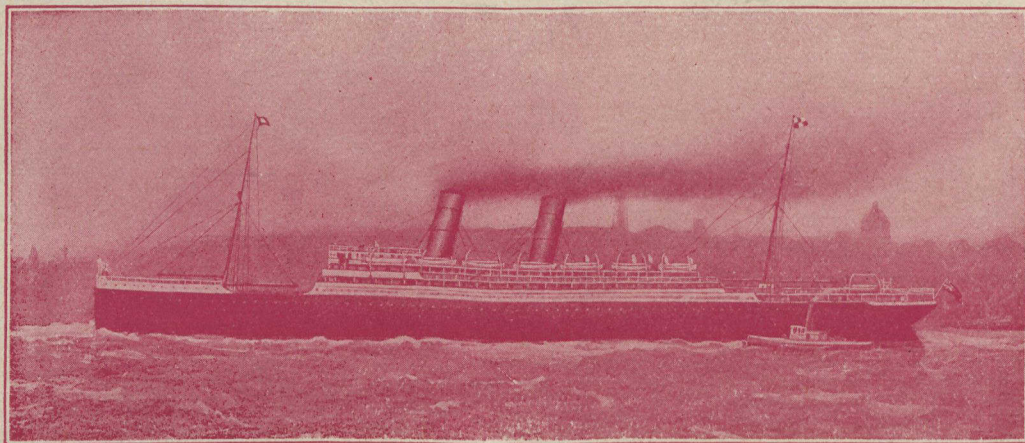
A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.

Canadian Pacific Railway Co.

ROYAL MAIL STEAMSHIP LINES

Weekly Sailings—Fast Line of Passenger Steamers From Montreal and Quebec to Liverpool

FROM MONTREAL AND QUEBEC	STEAMER	FROM LIVERPOOL	FROM MONTREAL AND QUEBEC	STEAMER	FROM LIVERPOOL
Fri. Sept. 7	Empress of Ireland	Fri. Aug. 24	Fri. Oct. 19	Empress of Britain	Fri. Oct. 5
Sat. " 15	Lake Champlain	Wed. " 29	Sat. " 27	Lake Champlain	Wed. " 10
Fri. " 21	Empress of Britain	Fri. Sept. 7	Fri. Nov. 2	Empress of Ireland	Fri. " 19
Sat. " 29	Lake Erie	Wed. .. 12	Sat. " 10	Lake Erie	Wed. " 24
Fri. Oct. 5	Empress of Ireland	Fri. " 21	Fri. " 16	Empress of Britain	Fri. Nov. 2
Sat. " 13	Lake Manitoba	Wed. " 26			



SS. "EMPRESS OF BRITAIN."

FROM MONTREAL TO LONDON DIRECT AND THENCE TO ANTWERP

SPECIAL ATTENTION GIVEN TO FRUIT AND PERISHABLE CARGO
COLD STORAGE AND FAN VENTILATION

Apply to this office for one of our illustrated pamphlets descriptive of our superior Third Class accommodation, showing large closed Cabins, spacious Dining Saloon, Social Hall, Smoke Room, and Promenade Decks.

For further Particulars and Freight Rates apply

S. J. SHARP, Western Passenger Agent

TELEPHONE MAIN 2930

80 YONGE STREET, TORONTO, ONTARIO

Mention The Canadian Horticulturist when writing.

A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.

DONALDSON LINE

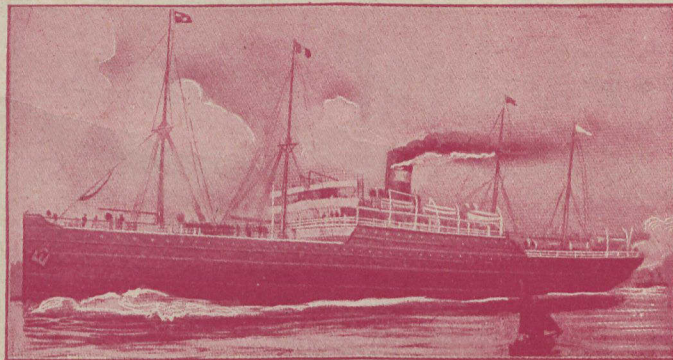
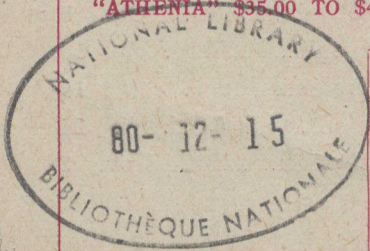
WEEKLY SAILINGS

TO GLASGOW

From Montreal in Summer and St. John, New Brunswick, in Winter

THE FAVORITE LINE FOR FRUIT AND PERISHABLES—MODERN STEAMERS, PERFECT VENTILATION—USING SIROCCO FANS, COLD STORAGE REFRIGERATORS

GOOD ACCOMMODATION FOR A LIMITED NUMBER OF CABIN PASSENGERS—RATES BY THE TWIN-SCREW SS. "ATHENIA" \$35.00 TO \$42.50; STEERAGE TO OR FROM GLASGOW \$25.00. OTHER STEAMERS, CABIN ONLY, \$35.00



SS. "ATHENIA," 10,500 Tons, Twin Screw

THOMSON LINE

ATLANTIC REFRIGERATOR SERVICE

WEEKLY SAILINGS

TO LONDON

ALSO SAILINGS TO NEWCASTLE, LEITH AND ABERDEEN

From Montreal in Summer and Portland, Maine, in Winter

COOL AIR, COLD STORAGE, SIROCCO FANS—FOR BUTTER, CHEESE, BACON, APPLES AND ALL PERISHABLES, USE ONLY THIS LINE

FULLEST INFORMATION GIVEN ON APPLICATION. ASK YOUR RAILWAY AGENT, OR

The Robert Reford Company, Limited

110 UNION STATION, TORONTO, ONTARIO

HEAD OFFICE—MONTREAL, QUE.

BRANCHES—ST. JOHN, N.B., and PORTLAND, MAINE

Mention The Canadian Horticulturist when writing.

A Nice Premium will be given Free to all Readers who Buy Goods from Advertisers.