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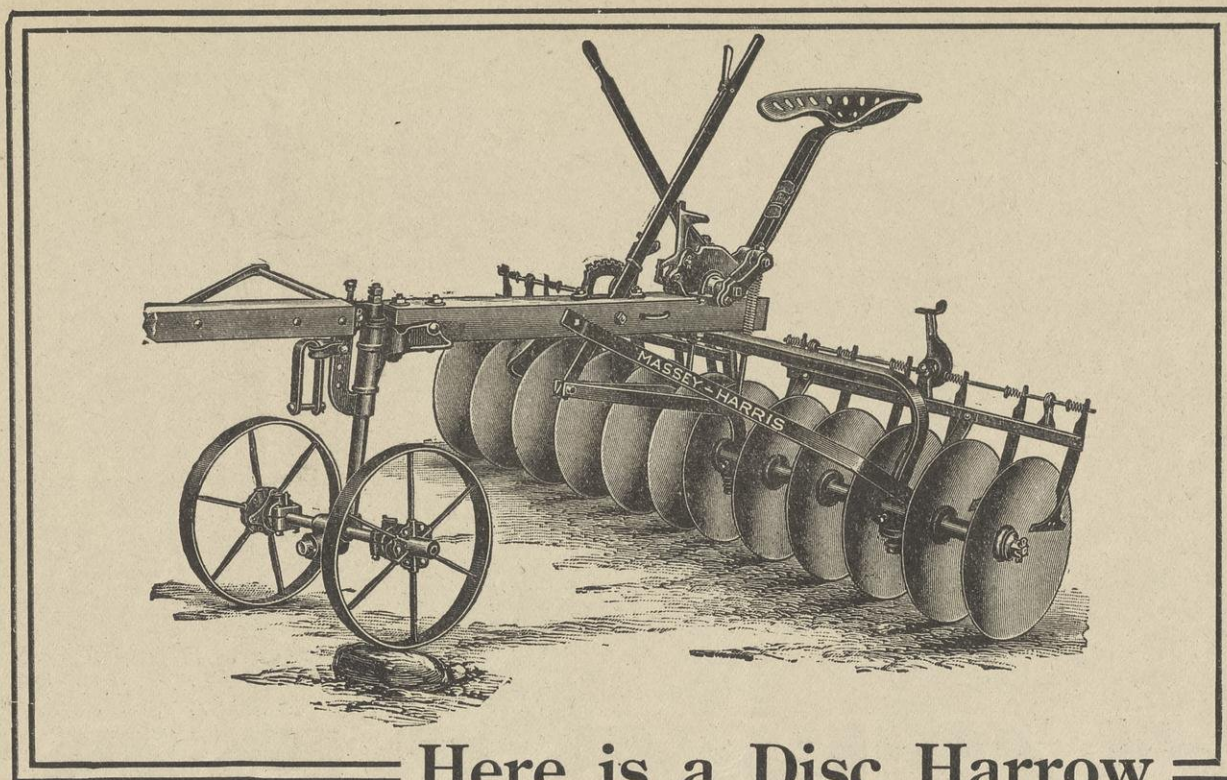
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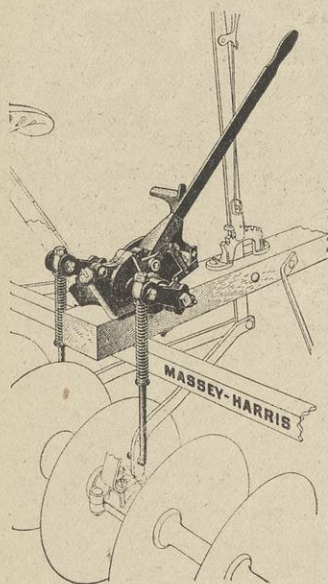
THE CANADIAN HORTICULTURIST & BEEKEEPER

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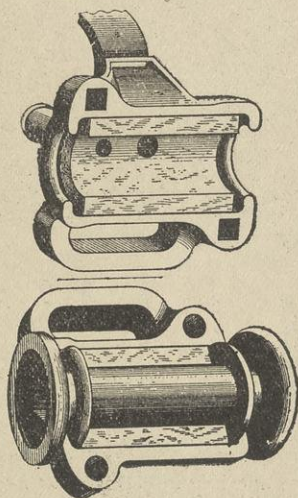


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The Canadian Horticulturist

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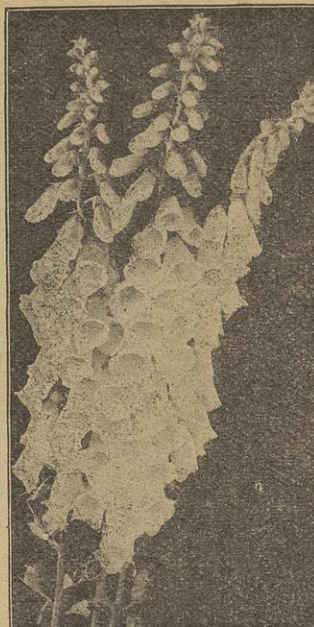
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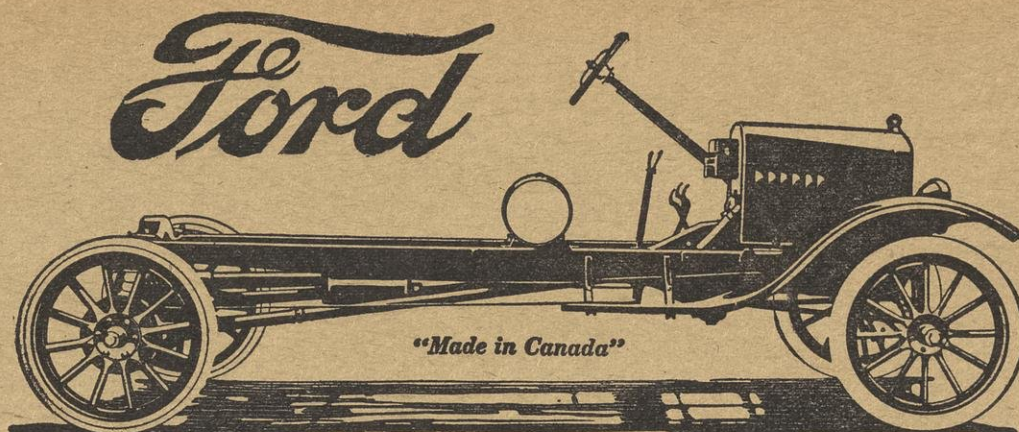
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The Canadian Horticulturist and Beekeeper

(See Pages 219-223)

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Vol. 26.

TORONTO, SEPTEMBER, 1918

No. 9

Taking in the House Plants

By J. McPherson Ross, Toronto

THE chilly nights now will be a reminder that we must look after our house plants before injury by frost and prepare them for indoor cultivation. Their after success entirely depends on the trouble we take in re-potting into good rich soil, clean pots or boxes with plenty of broken crocks or moss for drainage. Most of the trouble with plants that do not thrive indoors may safely be attributed to lack of proper drainage. Nine times out of ten when asked to examine plants not thriving under reasonable conditions we find a lack of efficient drainage is the main cause of the trouble. The surplus moisture not required to keep the soil moist or used by the plant if not drained off at once soon becomes stagnant and kills the roots. Old plants that have done decorative duty all summer on verandahs or other situations, or those that have been standing in shaded places by walls or under trees will require shifting into larger receptacles. Sometimes the same pot or box will answer by taking the plant out, shaking out or washing the old soil from the roots, and re-potting with fresh earth.

New pots should be soaked in water before using and the old pots also soaked to loosen soil and mossy growths on the outside, then with a vigorous scrubbing they will be fresh and as bright as new ones.

Soils for Plants.

The best soil for all plants is well rotted sod made fine. Say three-fifths of sod loam, a fifth of sand, and a fifth of well rotted crumbly manure, all thoroughly mixed together. This will suit the majority of plants as Fuchsias, Geraniums, Rubber Plants, Begonias, Primulas, Callas, etc. The addition of leaf mould and more sand will make a good mixture for ferns, palms, aspidistras, cyperus or the umbrella plant, and all kinds of bulbs.

Potting.

A plant properly potted should have soil well firmed in without hardness. Place over the hole in bottom of pot or box a piece of broken pot with hollow

side down also several smaller pieces over it, then a handful of rubble as pieces of sod or an inch of moss. Fill the pot with sufficient soil to hold the roots of plant the proper depth in pot, then fill in balance of soil to fill pot. Firm the soil in evenly, giving the pot a



Beds of cannas will soon be at their best. When well grown and in bloom they are strikingly attractive.

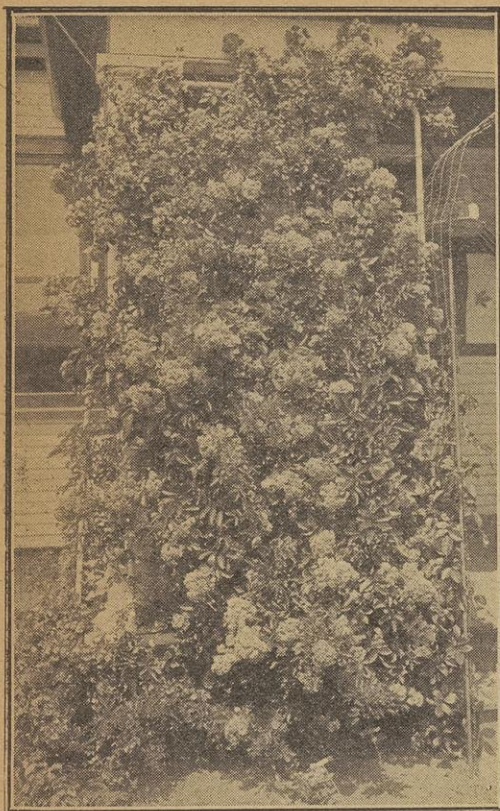
couple of taps on side with hand or on potting bench and finish off by leaving the soil an inch below the rim for watering. When this done as stated the watering is easily done. To find if properly watered tap the pot on outside with knuckles, if too dry the pot will give out a hollow, ringing sound. If thoroughly soaked a dull, dead sound is the answer. Most amateurs fill pots too full with soil leaving no space for water to soak in.

Plants that have grown too tall for convenient handling or to grow in the space allotted, should be cut back. More enquiries are made in this respect about rubber plants than any other.

Many persons who have no qualms about nipping the top of a geranium that is growing too tall stop point blank when it is a rubber plant. Off with its head if it's needed. It will break again and make a much shapelier plant than the slender columned things we see so often.

Not all plants will require shifting. The Amaryllis, for instance, may be left in the same pots for years, and should be kept growing as long as it shows new leaves. When it ceases to do this quit watering it, simply keeping the soil moist till it starts growing again. To properly grow house or any plant it is well for the growers to familiarise themselves with the climate the plant is a native of. For instance, the calla lily or lily of the Nile is a native of Egypt. In the dry season the plant is nothing but dry bulbs, like so many onions. When the rainy season sets in or when the River Nile rises the bulbs start into life and growth. This is mentioned to show it is a natural thing to give a plant a rest and gardeners, after this lily has stopped blooming, put the pots outside of the greenhouse and lay them on their side to dry out. In the fall they separate them into the various size bulbs they want and pot accordingly, bringing them into heat and moisture as they need them. This applies to scores of different plants and bulbs in ordinary cultivation.

Plants that are grown for summer show, as the tender hydrangeas, agapanthus or African lily, fuchsias, etc., are all better for this resting process. Placed in cool dry cellars, free from frost and away from furnace heat, these plants may remain till it is time to start them into growth for summer flowering. Plants of the Cacti family must be kept in a warm, dry place. A sunny shelf is the right spot. Here they may be well dried off, such as you would imagine a dry bank in Mexico would be in the winter season. Then as the days grow longer and hotter they start into growth and flower, the variety called Crab-claw cacti from a resemblance of the shoots to that creature is easily cultivated as a house plant and makes a



Crimson Rambler roses grown by Geo. Eilton, Hamilton, Ont.

great show when in bloom with its silky rose flowers, in winter.

To have roses in the house for winter flowers the soil recommended first in this article will be just the thing. Lift from outdoors, if you have them or procure from some source, the Hybrid Tea variety. They are the best and easiest to grow. Do not have too large pots as they do better if the roots fill the pot well. Place as many as you may want in a shady place outdoors after potting and watering freely. Leave them till the new growth starts before you place them in full light and air and have the soil rather dry before watering again. Too much water at this stage is worse than not enough, and this reminds us to say that in the winter be careful not to overwater plants as dampness is bad and plants do not need it unless they are growing strong and coming into flower. On days that you can open windows to let in fresh air do so, but avoid drafts as that is bad for plants, as well as human beings. Be careful to remove all scale from palms, rubbers, oleander and such like plants. Extra strong soap suds with coal oil is the best thing you can apply to remove these pests. Dead ends on palm leaves should be trimmed as near the shape of the leaf, cutting the withered parts off. This will have to be done from time to time as needed.

Box trees require to be kept in as cool a place as you have without actual freezing, though ten degrees of frost will not injure them. They need several soakings of water as the myriad leaves

on these plants must have moisture. Avoid the furnace and keep out of drafts and away from radiators. By being thoroughly moist all winter they will come out in spring all right. The dry heat of the house is bad for them

as it breeds red spider. Whenever an opportunity of a rainy day occurs put them outside in it, or apply the hose often. This advice applies to the aucuba and to our old friend the Boston fern, to get rid of dust.

September Care of the Rose Garden

Miss Marion E. Armour, Hon. Secretary Ontario Rose Society, Toronto

SEPTEMBER ushers in the second season for the rose garden. The Hybrid Teas very often make a better display this month than in July. The cool nights, and the lack of a wilting sun, are better suited to the slender stems and loose petalled blooms, than are the early summer months. If the bushes have been kept in a healthy condition, and have been well fertilized during the latter part of July, and August, there should be a good crop of autumn bloom. Some of the Hybrid Perpetuals, such as Captain Hayward, Frau Karl Druschki, Hugh Dickson, Mrs. John Laing, Ulrich Brunner, Margaret Dickson, Mrs. Sharman Crawford, Victor Hugo and others, will put in a second appearance. The "Old Reli-ables," Gruss an Teplitz and Caroline Testout, trained over trellis work or on walls, will provide for autumn climbers.

As in July and August, hoeing should not be neglected, and if necessary, watering continued, as during blooming time, the bushes must not be allowed to become dry. Keep a lookout for rose leaf rust, powdery, orange colored spores, succeeded by black specks on the under side of the leaf; rose leaf scorch, brown patches, which falling out, leave holes in the leaf; and black spot, black patches, with fringed border on the leaf. The latter has given a good deal of trouble, and no certain remedy has yet been found for it. Bordeaux mixture is generally considered to be the most effective cure for all three pests. The recipe for this mixture is as follows. Dissolve one ounce of copper sulphate in a bowl of boiling water. Dissolve some lime in a gallon of rain water, to which add another gallon. Then pour the copper sulphate slowly into the lime water, mixing well. This mixture should be used at once. A good article upon black spot, appeared in the 1917 "Annual" of the Rose Society of Ontario, by Mr. H. J. Moore, of Niagara Falls, Ont. If rose rust has persistently attacked certain bushes, they should be transplanted this autumn.

Plans for the Garden.

Now that autumn planting is becoming so popular, many enthusiasts, who have not heretofore grown roses, will be thinking out plans for a rose garden. These plans should be drawn up on paper, before attempting to make beds,

etc. There are various opinions as to the arrangement of a rose garden. H. H. Thomas says: "However big, or however little a rose garden may be, it should at least be solely and only a garden of roses. It offends against the canons of rose growing, to plant the queen among her subjects." Mr. H. J. Moore, on the contrary says: "The beds containing the weak and less vigorous roses would be carpeted with pansies, violas, lobelias, many kinds of dwarf annuals, and even carpeting perennials," his argument being that the carpeting plants shade the ground, and keep the roots of the roses cool and damp. As regards this point, however, it need not be settled at this season of the year.

As to the form or arrangement of the garden, most authorities agree that simplicity is an essential. Roses seem to show to better advantage in simple round, oblong or square beds, rather than in complicated shapes. If the garden is to take a circular form, a central point should be accentuated, with a sundial, standard rose, or better still, a weeping standard. Archways, covered with ramblers, should mark the entrance to the garden, and if practicable, one should be able to come upon the garden unexpectedly, the "royal presence" being screened off from the rest of the garden. Formal or not, no rose garden can be complete without ramblers and standards to break the lines.

Beds containing one variety, are very successful in obtaining a color scheme, if prolific bloomers are chosen, such as Caroline Testout, Conrad Meyer, Madame Ravary, Madame Abel, Chatenay, Lady Ashtown, La France and La Tosca. If the garden is to be very small, however, beds of different varieties, but of one color may be tried instead. Beginners would do well to stick to a few well tried varieties, and not start off with novelties, or varieties of which they are not certain of their vigor.

Paths may be of grass, brick or gravel, preference being given to grass, unless the garden is quite large. The situation for the rose garden should be half sun and half shade. Full shade is useless, and sun throughout the day, is apt to bleach out the color of the blooms. The soil should be rich and fairly heavy loam, and if good drainage is not to be had, it must be provided.

Paeonies for Next Year's Bloom

W. E. Groves, Hamilton, Ont.

EVEN on well established paeony plants, blooms each year will not be certain unless some care is given the stock. It is all the more necessary to use every care when blooms are expected from plants recently acquired or transplanted. Where propagation of numbers is the object in view, old roots have to be so severely divided that a season is often lost before flowers appear. This largely accounts for the fact that plants sent out by nurserymen often fail to bloom the first year. Good success, however, would more often result if a little sensible care were given at planting time for paeonies multiply so rapidly, and root action is so continuous, that very little check should occur.

Tubers bought from the dealer should be planted immediately on arrival, or if the position is not available, the roots may be kept, for a time, in a cool and not too dry a place. Dividing of stock already on hand should be done in the fall if possible, the ideal time being just before the leaves have quite ceased growing, for then the old roots are at rest whilst the young ones are not started. At this time the roots heal more rapidly, causing new roots to start sooner than at any other season. Where cutting has to be done a sharp knife should be used and clean cuts made, taking great care to avoid drying out before planting is done. Incidentally it may be mentioned that it is wise to reserve any pieces of tuber, however, small, that may be broken off in the dividing process. These may be planted in a shallow trench and many of them will emit roots, being useful for graft-

ing if for no other purpose. If the permanent position is not ready, time may often be gained by starting the roots in a box or pots previous to planting out. This method applies more particularly to spring planting, and if adopted care should be taken to keep the plants cool.

Give Good Cultivation.

To secure blooming crowns quickly, good cultivation is essential, for it is at this point that success or failure is assured. Paeonies are such vigorous subjects, that it is absolutely necessary to dig deep and thoroughly to get luxuriant growth. Added to this, is the importance of suitable food without which all other labor is almost wasted. Positions that are well drained should be chosen, great care being taken to avoid soil that retains stagnant moisture, this being fatal to good growth. Paeonies often root to the depth of three feet, making it quite obvious that the nearer to this depth it is possible to dig, the better for the plants. Some well decayed manure may be well worked in during the process, while for lightening purposes if the soil is heavy, decayed leaves or a little sand may be added.

The actual planting is not difficult. The time selected should either be in early spring, as soon as the frost is out of the ground or from the end of August until the ground freezes, September possibly being theoretically the correct time. The eyes should be from two to three inches below the surface when the plants are in, and care should be taken to plant firmly.

Seasonable attention is of more im-

portance in the care of paeonies than in many other hardy plants, especially where the grower is keen on results. It is wise to give the crowns some protection each winter, certainly the first year or two after planting. The chief reason for this is to save any check to root action. In very few plants is root action so continuous as in paeonies. With barely any rest this goes on even through the winter months, and it is easily apparent that sufficient protection to keep the frost from getting into the ground at too great a depth must be an advantage. This covering must be removed in spring before the shoots commence to appear or weak growths will result.

When plants are well established it is well not to omit a dressing of manure occasionally. This may be lightly forked in around the roots without doing any damage to the crowns, the spring being probably the best time. In dry seasons, or where the soil is well drained, paeonies are greatly benefited by good soakings of water. At blooming time the colors are intensified, and blooms increased in size, if manure water is substituted occasionally, or a cool fertilizer may be given, watering well in at the time. Cultivation and cleanliness are not to be overlooked, care being also taken not to let growths of surrounding plants crowd out the light and air, from the paeony crowns.

These favorite plants are not difficult to grow. If attention is given along the lines indicated there is no reason to look for anything but reasonable success.

Orchard and Garden Notes

Take in your winter-flowering geraniums now. They will do better in the house now than outside and will be free from frost.

Pansies started in August should go to the frames before November 1. Make the soil rich by the addition of plenty of rotten manure.

Celery should be blanched before going into storage. There is yet time to blanch the late celery.

Be sure that the garden gets a liberal coating of manure this fall before it is plowed.

Cauliflower heads will form rapidly this month and the plants should be carefully protected from worms. The leaves may be gathered together and tied when the heads are nicely started.

A well-grown potted plant of cineraria, primrose or a pan of daffodils makes a good table decoration.



These paeony beds were planted in Pinafore Park, St. Thomas, by the St. Thomas Horticultural Society. The park contains some 500 paeonies comprising 150 varieties, in Japanese, double herbaceous and tree paeonies. The bed in the foreground contains 108 varieties, all labeled.

Raising Aster Seeds*

G. H. Ryerson, Brantford, Ont.

IF you are planning to grow asters your success as a grower will materially depend upon the quality of the seed you use. As quality is largely a matter of parentage, it necessarily follows that in order to have good flowers your seed must be produced from flowers as near perfect as possible. Without good seed you cannot hope to produce good flowers. No matter how much care and attention you may lavish upon them, you will at best be able to produce only poor flowers well grown.

It is possible to secure a strain of seed, such as no commercial seed house can furnish. This is because no commercial seed producer can afford to go over his crop and select seed from only the perfect flowers. A private grower may do this to secure seed for his own use, in order to keep his stock up to the standard. The labor involved, the small return in seed, and the comparatively low market price of aster seed when attempted on a large scale, renders this proceeding a very unprofitable one. The result is that the seed which you procure through the regular channels may be good, bad, and indifferent, and the flowers produced from it the same for like produces like.

Secure plants from your local market gardener or florist, or seed from a reliable seed house. From this you will be able to grow seed of your own. To do this, go over your beds carefully, when your flowers are in full bloom. Select several of your very best blooms of each variety. Tie a tag to each bloom, showing the name of the variety and any other information which you may deem necessary. Break off all flowers not tagged on each plant selected. When your flowers begin to wither, pull your selected plants up, root and all, hang them in a cool, dry place, but free from frost, and there the seed will ripen to the best advantage. During the winter, at any odd, leisure hours, you may clean your seed.

Never bring from your storeroom more than one variety at the same time, so as to avoid any possibility of your varieties becoming mixed. Break off a ripened flower head, carefully remove the dried petals, which you will find will come away readily, brush the seed from the peduncle into the palm of the hand, place the hands together and rub vigorously with a circular motion, then open the hand containing the seed and blow gently upon the contents, when you will find that the hair-like appendages which were attached to the seed, as well as the light,

immature seed, will be blown away, and you will have left in the palm of your hand nothing but plump, mature seed. Place these in a small envelope and label with the name of variety. You are now ready to start in the aster raising business in earnest. This method of selecting your seed should always be observed, and the quality of your asters will improve from year to year.

YOUR QUESTIONS ANSWERED

Wm. Hunt, O.A.C., Guelph, Ont.

Tulip Bulbs.

I dug up some clumps of Tulip bulbs early in August that had become crowded and were not flowering well. Should I keep the bulbs out of doors or put them in the cellar until planting time in October?—F. M. G.

It will be best to get the bulbs into a cool cellar or room as soon as possible. Leaving bulbs out of doors exposed to sun and rain after drying them a little when first dug, is injurious to them.

Cutting Gladioli.

When is the best time to cut gladioli spikes for decorating indoors?—A. M. McL.

When about three of the flowers at the base of the flower spike have developed, most of the remaining buds will develop after being cut, whilst those already open will last fresh longer after the spike is cut. Change the water they are in and cut off about half an inch of the base of the stem each day, or at most every second day.

Where to Cut.

Does it weaken the bulb corm of gladioli if the flower stems are cut low down near the ground when cutting spikes in flower?—R. B. J.

Yes! It is a great mistake to cut the stems low down when the plants are in flower, as too much of the foliage is then removed. The corm cannot perfect its growth if all the foliage is removed early in the season. Leave all the foliage possible when cutting the spikes. Low cutting early in the season means a weak immature corm for next season's flowering.

Tuberous-Rooted Begonias.

How should tuberous-rooted begonias be treated when through flowering so as to save the tubers for another year?—J. T. R.

Gradually withhold water from them, giving them water less frequently and in less quantities until the leaves are yellow and the stems drop off. Then stand them away for the winter without removing the tubers from the soil in a cool room or cellar, temperature

about 45 degrees Fahr. They should not require any water during winter if the place they are in is not too hot and dry, a condition to be avoided. In March or early April, before the tubers have started into growth, shake them out of the soil they are in and start the tubers in sand or sandy soil in a warm window, hot bed, or greenhouse in a temperature of 65 to 70 degrees.

Aster Seed.

Can I save my own seed from asters and be sure of getting good flowers from them next year?—T. J. M.

By covering the plants wanted for seed closely in a piece of cheesecloth or muslin as soon as the first flowers have opened so as to exclude insects, etc., and by selecting the best type of plant and flower, you may be reasonably sure of getting good seed. Or if plants, having an inferior type of flower, are pulled out early in the season, and only good types left, you may secure good seed from those left growing.

Bulbs for Indoor Blooming

September is the month to pot bulbs for early indoor blooming. Hyacinths, tulips, narcissus and jonquils are best suited for this purpose. A good soil for potting bulbs is composed of one-half part well decomposed turfy loam, the remainder well rotted stable manure, leaf mold and sand. These should be well mixed together.

The size of the pot depends on the size of the bulbs and upon the effects desired. As a general rule, for a single hyacinth a 5-inch pot should be used. For tulips and narcissus a 4-inch pot is large enough, the size increasing with the number of bulbs. In potting place a piece of broken pot or some coarse ashes over the hole in the bottom to secure drainage. Fill the pots half full of soil, set the bulbs so that the tops are at least one inch below the rim, cover them with soil and press it firmly around the bulbs, leaving at least one-half inch space at the top for water. After all have been potted and labeled they should be well watered and placed out of doors, with the pots close together. Nail a board frame around them and cover with six inches of ashes or sand. Leave them there for about six or eight weeks. Then make an examination to see if roots are well developed. If so, remove the pots to a cold frame, shed, attic, or cool cellar in a temperature from 45 to 50 degrees, and water them well.

One of the best hardy perennials for garden use is the delphinium or hardy larkspur. This comes in six or eight shades and is a splendid plant where a blue flower is desired.

*Extract from an address delivered before the Ontario Horticultural Association.

Bulbs for Winter and Spring Bloom

PLANTING shrubs and sowing flower seeds is always more or less uncertain as so much depends on the season, the soil and knowledge of the work, but with bulbs, nature has encased in each little brown, shining case the embryo flower, the incentive for growth, and to a great extent, the food necessary for its full development, so that it is only necessary to put it in the ground under fairly favorable conditions to reap an abundance of flowers in the early spring. October and November are the best months for planting but this is a good time to plan and prepare for the work.

Hyacinths are especially satisfactory for indoor forcing and require very simple treatment—one bulb in a four-inch pot, or three in a six, or a dozen in a window box, placed in a cool, dark cellar for a couple of months and the heat and light and sunshine produce a wealth of bloom and fragrance which turns the dreary winter days into those of bright spring and summer.

Narcissus.

The narcissus on the other hand forces quickly and easily, and is one of the most satisfactory bulbs grown. For house culture, plant rather close in a window box, or three or four in a six-inch pot, putting the tip of the bulb just below the surface of the soil and place in the cellar until root growth is well established. For outdoors plant in long triple rows, setting the bulbs twelve inches apart so that they will have room for the rapid increase which takes place with these flowers. After planting they should not be disturbed for many years, or until they show decreased blooming. In referring to narcissi, one is understood to refer to all that class included under the head, daf-

fodils and jonquils, the treatment being the same for all, and all equally desirable, though for forcing in the house the big trumpet sorts and the paper white sorts are preferable.

Good friable soil, preferably a fibrous loam and good drainage is essential for outdoor culture for all bulbs. Water settling about the roots is harmful and must be avoided, either by a suitable selection of site or by under-draining, either with porous tile or by digging out the bed a couple of feet and filling in several inches of rubbish. Taking this precaution and a reasonable amount of sunshine very satisfactory results should be secured with the entire bulb family.

Tulips.

Tulips are very beautiful in solid beds or as borders to beds of hardy perennials. Some like the latter way best, planted in double or triple rows. In this way they do not need to be disturbed for several years and give the maximum of pleasure with the least amount of work. When planted in solid beds, care must be taken to select sorts of equal height and the same season of bloom. This information can be obtained from the catalogues, and the colors may be chosen to suit one's own taste. For forcing in the house the selection is somewhat limited, as not all sorts are good forcers, but certain kinds are reliable and make very beautiful window boxes at a small cost.

Crocus.

Crocuses—which appear so early that they seem here to greet the spring rather than to have come at her call, should be sown by the hundreds, both because they are one of the things of which one cannot have too many, and

also because they are cheaper, when obtained in large quantities. Where conditions permit, scatter them about in the grass of the lawn, casting them from you in handfuls and burying them where they fall. Just open up a pocket in the soil by lifting the sod with the point of a trowel and inserting the bulb but don't forget to press the sod down tight above it—step on it if necessary. An excellent place to plant them is along the root of a tree running close to the surface of the soil. When an unusually severe winter or hot summer, or other cause plays havoc with the crocus in other parts of the ground, those along the roots are seldom affected and show profuse bloom the following spring. In selecting crocuses always buy the mammoth, many flowered sorts, and remember that white and yellow are the most effective for outdoor planting.

Do not omit to save a few dozen for planting in window boxes for the house. Set them close together and put the box in a cool cellar and keep covered until the shoots are an inch or more high, then place them in a warm, sunny window.

Plant as many bulbs in pots and boxes as you have room for and then commencing all over again, plant many, many more for those who are not situated so they can do these things for themselves. They make the loveliest of all Christmas gifts, and may be put in the common earthen pots or in any of the many attractive pots of majolica, blue and white Canton ware, Mexican pottery and the like which come for the purpose. Plan to have a few early pots for Thanksgiving, and a few late ones for Easter, and see how much pleasure they will give. These are the bulbs which one can plant by the dozen or hundred with entire confidence in the results.



War time vegetable gardens like this one, it is estimated, have produced \$50,000,000 worth of vegetables this year in Canada, or about the value of our export wheat crop. It is estimated there were over 20,000 such gardens in Winnipeg alone.

Plant Paeonies Now

To secure the best plantings, paeonies should be started early in September so that considerable root growth may be obtained before freezing weather. Young plants from nurseries, with only two or three eyes, must be carefully handled to avoid injury in planting. A coarse mulch of manure applied to the surface of the paeony plant will aid the growth of the newly-set varieties and prevent heaving of the plant by freezing.

Best Varieties.

The following varieties have been tested and are recommended by the Central Experimental Farm, Ottawa:

Pure White—Duchesse de Nemours (Calot), Le Cygne, Marie Lemoine.

White, edged or flecked with crimson or carmine; and flesh white—Avalanche or Albatre, Baroness Schroeder, Couronne d'Or, Festiva maxima, Marie Jacquelin, Mons Dupont.

Pale Pink, and pale pink fading to white or edged with white—Asa Gray, Eugene Verdier, Grandiflora (Richardson's), Mademoiselle Leonie Calot, Marguerite Gerard, Triomphe de l'Exposition de Lille.

Pink—Claire Dubois, Livingstone, Madame Auguste Dessert, Madame Geissler, Modeste Guerin, Monsieur Jules Elie, Therese.

Red—Felix Crousse.

Dark Red—Adolphe Rousseau, Monsieur Martin Cahusac.

Improving the Lawn

DID the hot, dry weather hurt your lawn? September is the month for repairing lawns. While lawn repairing often presents many difficulties, most thin sods will be improved by fertilizing and reseeding.

Patches that have died should be scratched and made fine with a steel rake for seeding. Unless the soil is rich it should be made so by the use of manure or commercial fertilizer. The latter is preferable because it is easier to apply and carries no weed seeds. For such purposes we recommend the use of about four pounds of steamed bone-meal to the square rod. An application of ten to 15 pounds of hydrated lime per square rod or of twenty to thirty pounds of finely ground raw limestone is also advised for soils deficient in this constituent. The lime should be worked into the soil before any fertilizer is added.

After this treatment a mixture of equal parts of Kentucky blue grass and redtop, with a little white clover, should be sown broadcast at the rate of one pint to the square rod. The ground should then be raked over to cover the seed and to make a smooth

surface. Lack of moisture will make seedings uncertain. Hence sprinkling of lawns is advisable in dry seasons.

Even those lawns having heavy sods will be improved by occasional dressings of manure or fertilizer. Such treatment will thicken up the grasses without reseeding.

Stable manure applied in the fall or winter will cause the lawn grasses to be thicker and of a darker green color in the spring. Such material should be rotted and fine. Coarse, strawy manure or lumps of such matter will kill out the grass beneath.

Have Chicory Until Spring

H. J. Moore.

THOSE who have chicory in their gardens may enjoy excellent salad all winter until spring is well advanced if they treat the roots properly at this time. Lift a few roots at once, and repeat as occasion demands, using a fork so that they will not be injured in any way. With a knife remove the tops one half inch or so above the crowns. Pack the roots in boxes of light soil, and if this is very dry, water it, and store the boxes in a darkened portion of a cellar, cupboard or disused room. Absolute darkness is essential. In about four weeks heads suitable for use will be produced, when the leaves may be broken (preferably) or cut. The temperature where the roots are stored should not be extremely warm or cold; a fairly uniform one of 55 to 65 degrees Fahrenheit will be proper.

When winter arrives lift the remainder of the roots, store them in boxes of soil and remove to a cold, but frost proof place, where growth will not take place. Later, as necessary, place a box in the dark forcing room and water the soil when dry. By carrying out these instructions a succession of salads is possible from October until May.

Chicory roots, especially the large one, are valued as the source of "Ground Chicory." This you may prepare. Large roots you do not force, dry and grind. Mix the powder with your coffee, save half of your coffee bill. This is war time, save all you can.

THE VEGETABLE GARDEN

Wm. Hunt, O.A.C., Guelph, Ont.

Trimming Tomatoes.

Does it injure tomato plants to cut off a great many leaves to let in light and air?

It does not injure the plants to remove about half of the leaves, or even

some of the lateral side shoots of growth, if the plants have become very dense and crowded. All the foliage should not be removed, especially early in the season. Very late in the summer, when plants have reached their full growth, and the fruit all formed, the plants may almost be denuded of foliage so as to allow all the sun and air possible to the fruit.

Garden Peas.

I was not successful this year with garden peas. Only half the number of seeds germinated. How deep should they be planted? Should they be soaked first? The Dwarf peas turned brown when very young. Should they have been sprayed and what with?—L. B., Nova Scotia.

There were many complaints this season of garden peas not germinating. I am inclined to think the cause was an inferior quality of seed. Seed was very scarce and in many instances very poor, in quality. I do not advise soaking seeds before sowing. It is apt to be overdone. Peas, if sown early in the season, as they should be, should not require soaking as the ground should be moist enough to start germination. I prefer watering the seed after it is sown if the weather is very dry. In the absence of a specimen plant I cannot tell what caused the peas to turn brown. Extremely dry, hot weather will cause trouble in this way.

Few Potatoes.

My potatoes were a splendid crop. I picked off every yellow egg and had to spray only once. The potatoes were large, but only two or three to a hill. The rest too small for anything. Did we use too much manure? Six double loads were used for the one-quarter acre.—H. S., New Brunswick.

If the ground the potatoes were sown in was in good average condition prior to applying the manure, the quantity mentioned would be too much for potatoes. Half the quantity would have been ample. If the vines were very vigorous and strong growing, it would indicate that there was too much fertilizer in the soil. A soil too rich in humus (decayed leaves or vegetable matter) or too rich in fertilizers is not good for potatoes as they run to vine instead of forming tubers.

Asparagus.

Should asparagus plants be allowed to grow up in a big bush after the asparagus is done or should the growth be cut down?—H. B.

After the spring cutting asparagus should be allowed to grow and complete its growth until quite late in the fall, until the foliage turns yellow, in October. It should then be cut down. Asparagus should not be cut for cooking after the first or second week in July at the latest. At that time it may be fertilized heavily with chicken manure, or well-rotted barnyard manure, to assist growth, and allowed to continue its growth until fall.

Wintering Bees in Northern Ontario

By Wm. Agar, Thornlee

WINTERING bees in Northern Ontario where the thermometer goes down to 60 degrees below zero, sometimes; where the snow never forms a crust and where the winter sets in about November 1st, and never lets up much before April 1st, is putting bees and beekeeper under circumstances that are new. Before going into the wintering let me explain a little of our summer season.

We start off in the spring with Pussy willow and dandelion, then comes alsike, raspberry, fire weed, and other honey producers. At the time of writing, Aug. 30th, the bees are still working on the alsike. That may seem a rash statement to some. On Aug. 25th the hive on the scales gained 5 lbs. I saw them thick on the alsike and saw the nectar in the flower. After a heavy frost comes we still have honey producers, the wild asters. To handle the wild aster honey is our problem, or was last fall. The bees do not winter well on the aster honey in our long, severe winters, and are very liable to get dysentery. I have wintered bees here four winters and last fall was the first that they got any quantity of it. I will give a little of last season's experience. All last summer was wet and cold, very unfavorable for bees. In the fall it was better. On Sept. 13th, 14th, 15th and 16th, it came out warm and clear. Before this we had a heavy frost that shut off the alsike, but the aster yield was about 20 lbs. per colony in the four days. Then the weather turned cold, and was not fit to handle the bees in. Most of the nectar from the aster was stored in the brood chamber, but the weather was so bad that the bees could not ripen the nectar nor the beekeeper remove it. We could do nothing but leave it there, unripe, and in the centre of the brood chamber, and winter our bees on it. I saw bees wintering inside and out last winter and they all suffered heavy.

The soil in this country is very moist and cellars dug for wintering need to be carefully planned. The best one I know of is built of cement with two feet of gravel between the cement and the clay, with a drain running around the bottom of the wall. This cuts off all the soakage from the clay. Bees in the cellar referred to wintered well last winter, and this beekeeper never makes a practice of feeding sugar, so it would seem the winter problem can be overcome.

I winter my bees outside in the usual way of two or four in a case and still feel inclined to try it out another win-

ter. Three years ago I wintered without any wind break. I shovelled snow around them in their packing cases. The ones facing north suffered most. Two years ago I had a picket fence around them. The yard drifted full of

them. The snow banked up against the outside of the fence until it was as high as the top rail, then it drifted on the inside of the fence. All winter the centre of the yard was bare and bleak. This fall I intend to knock off every other board and let the yard drift full if it will.

The question in my mind at present is, how to handle the bees in our short fall, for winter. My experience is this, that when the weather is fine they gather honey right up until winter and need some place to store it. There are always honey plants in bloom, and it is a matter of judging whether we get our bees ready for winter by the 1st of September or running chances until the last of October. We may or may not get a good crop of honey during that time. My plan at present is to keep good combs of honey to put in the brood chamber. The question, of course, is when to do it. Our queens are still laying full capacity and will continue to do so as long as the honey comes in. If we put our winter stores in the brood chamber too soon we crowd our queen and cause trouble. If we leave it too long we may get caught with the cold weather. My plan is to put the winter stores in the brood chamber the first fine day after the first frost. After the first frost we get no more alsike honey, nothing but aster. Put on the queen with two frames of brood, put the queen excluder on and put the brood above the excluder, let the brood hatch there and any honey carried in will be stored alone. Later on take the super off and the bees are ready for storing away.

Prepare Bees for Winter Now

Successful wintering depends on:—

(1). Plenty of bees with a large proportion of young bees reared in August and September. Unite weak colonies.

(2). A sufficient quantity—about 30 lbs.—of wholesome stores in the combs for winter.

(3). Good protection: either in a good cellar or outside, with plenty of packing, small outside entrances and the apiary sheltered from wind.

These matters should be attended to in September. For details see Experimental Farms Note in the August Number of this journal.

F. W. L. SLADEN,
Apiarist, Ottawa.

snow until there was about five feet of it around and over them. They wintered good. Last summer I built a solid board fence six feet high around



A packing case used by C. Klabuhn and Sons, Ohio, for wintering. The bees wintered 98% on buckwheat, golden rod and white aster honey, and were in the hives 161 days without a flight.

Sugar for Fall Feeding of Bees

By W. A. Weir, Toronto

THE conservation of sugar is the most urgent and important problem before the Canada Food Board at the present time. The Board is concentrating a great deal of effort on this item of food alone and beekeepers should realize that the situation calls for much patience and co-operation on their part. There is no magic about the problem. It is a clean-cut problem of distribution. The production of raw sugar is confined to a comparatively small area of the world's surface, and the great bulk of sugar must be transported on ships. The demand for sugar for overseas fighters is much greater than would occur from an equal body of men in peace times and it is the high grade, granulated sugar which is required by this demand. Limited production, limited shipping and abnormal demand, as well as loss from submarines, largely account for the present situation.

The work of distribution is carried out in the first place by Commissions formed under the direction of the Allied Governments. Canada is allotted her percentage of the supply and this percentage must meet her needs. It is impossible to distribute what does not exist. The householder, the canner, the beekeeper and other branches of industry have their respective claims upon the limited supply. Consequently, each claimant must receive consideration from the Canadian distributing centre, viz.: the Canada Food Board, and patriotically reduce its demands to the irreducible minimum.

The needs of Ontario Beekeepers have been constantly before the Canada Food Board. Since April of this year close touch has been kept up and the

beekeepers have been warned by circular and correspondence regarding the situation as the season advanced. The inspection work of the Department, the Honey Crop Report of the Association and the General Correspondence of the Apiculture Department have all contributed valuable information enabling the Department to present convincing, definite information from time to time to the Board. Arrangements have now been made to safeguard the interests of beekeepers as far as possible, and it is hoped that beekeepers will show a keen desire to co-operate with the Department and the Board.

The system of licensing practised by the Canada Food Board obligates the wholesale and retail grocers of Ontario to report sales of sugar to the Board. The merchant is only permitted to sell large quantities to a licensed party. Beekeepers can now obtain a permit which will protect both the merchant and the beekeeper, providing he fills out correctly the application form which will be provided him. Correspondence shows that this permit alone, **good until December 1st, 1918 only**, will suffice to secure the bulk of our requirements without further arrangements being made. Beekeepers, however, who find it impossible to secure their supply through the ordinary channels are expected to get in touch with Wm. A. Weir, Assistant Provincial Apiarist, Ontario Agricultural College, Guelph, Ont., and he will endeavor to meet special deserving cases.

The sugar shortage has raised a multitude of suggestions as to possible substitutes. The only substitute for winter stores which has given good results in individual experiment is raw sugar crystals similar to that obtained by the department for feeding of bees in the spring. This sugar is from 97 per cent to 99 per cent pure, and it is desirable to have a more extended experiment with same to prove its general value. In order to do this, it has been arranged with the Canada Food Board to secure about two carloads of this sugar for distribution at cost, viz.: \$7.50 per hundred weight, f.o.b., Toronto, Ont. Applications for raw sugar for an experiment are being sent to all members of the association, and may be had on application to Wm. A. Weir, Assistant Provincial Apiarist, Ontario Agricultural College, Guelph, Ont. Beekeepers desiring to take part in this experiment must agree to winter at least six colonies on syrup, made from these crystals and to report the results the following spring. The sugar will be allotted as application is made until exhausted, and it is to be hoped the



Snow in the bee yard. In the apiary of Mr. Wm. Agar, Thornlee. Note the depth of snow as compared with the man and it had melted some when this photo was taken.

number of applicants will be sufficient to secure a test in all localities of Ontario.

Seasonable Reminders

Give a super as soon as the bees fill the hive if honey is being gathered. A larger amount of honey is obtained as extracted honey than in the comb. Moreover, extracted honey production pays better in the majority of cases and requires less care, swarming being more easily controlled.

In the frame hives, whenever the beekeeper finds a worm—indicated by the silken galleries through the combs—he can cut it out with a knife and destroy it. It is of prime importance to maintain the greatest degree of cleanliness about the apiary, in order to leave no breeding places for the multiplication of the wax worms. Stored combs when infested may be treated by fumigation with carbon bisulfid; this will not impair the flavor of the honey. It is also recommended to treat combs found infested during the summer time by placing them under a strong colony of Italian bees, which will quickly make away with the moth larvae.

The apiary should be on dry ground, well sheltered from cold winds. If there is no good natural windbreak, an eight foot board fence should be erected all around, or at least on the coldest sides.

We have certainly made remarkable strides in beekeeping methods since I was a boy. Compare our smokers with the old punk wood. Our hives, yards, and extractors are away in advance. We have organized beekeepers' associations. We have splendid marketing systems and methods of preparing honey for the market. We have created a demand for honey. We have not had to ship our honey abroad. Canadians are a honey consuming people.—Wm. Couse, Streetsville, Ont.



Three indispensable articles to the beekeeper, Bee veil, smoker, and hive tool.

My System of Rendering Wax

By W. H. Kirby, Oshawa, Ont.

THIS is a job that every beekeeper who wants to make the most of beekeeping will need to do, sooner or later. There are several makes of wax presses on the market at the present time. Some of these presses are expensive to the ordinary apiarist who has one hundred colonies, more or less. The process of rendering required by some is a dirty, sticky job, in order to produce the nice bright, clean wax. My first wax extracting was done in the oven of the cook stove, by placing the scraps of comb and bits of wax into an old metal sieve and setting the sieve in the top of a galvanized pail, with a few inches of water in the bottom. This answered my purpose for a few years until I had some old combs to melt up, then I got a local tinsmith to make a Jones steam extractor, at a cost of \$2.50. This was about 25 or more years ago. To get the same made to-day would cost about three times as much. The Jones extractor was a very plain affair, after the principle of the Swiss extractor as seen in the catalogues of to-day. The Jones was about the first steam extractor offered to the beekeeper. The cover did not fit very tight and allowed much of the steam to escape from the top, which made it rather slow working. In order to overcome this loss I made an improvement, in the shape of a water seal top, by having the tinsmith solder around near the top of the can a little flaring upright flange about one and a half inches wide, to be filled with boiling hot water, when starting to operate on the stove. Then a deep band was put on the cover, to extend down into the water. This increased the speed of the rendering fully one-third. What steam then escaped all came out of the

wax tube, this keeping the tube hot, so that the wax flowed from it freely. The tube being below the comb basket, the wax flowed into a pan on the stove, with some hot water in it.

Another improvement I made was a flange around the can similar to that at the top, only much larger. This I use to hold a supply of water, which run in the feed hole, as fast as it was boiled away. By melting down and filling up with old comb, I found about sixteen or eighteen old Langstroth combs, enough for one batch, and by frequent stirring I would get about all the wax out in three hours, and often the slum gum would go all to a powder when dry.

Some years ago I got a steam press from the Goold, Shapley and Muir Company, of Brantford. This was on the same lines as the German wax press, made by the Roots of Medina. I find this a very handy press for pressing out cappings. I have also improved this press by making a combined steam or hot water press. I had a water tube, of about an inch in diameter connected from near the bottom, on the outside, to the top, and an outlet wax tube inserted near the top, a la Hersher. To use this wax press set it on the stove and fill two galvanized water pails with broken comb. When thoroughly boiled soft, place a stout burlap sack, a little deeper in length than the comb basket, into it and dip the boiling hot, old combs into the sack. When full fold in the sack and screw on the pressure, slacking a few times on the cheese then turn down, and pour in hot water through a funnel into the water tube, which will raise the melted wax up to the outflow wax tube and out



The apiary of a successful Quebec beekeeper. Mr. Edouard Benoit, of Ste. Scholastique, Que., took 6,000 lbs. from 24 hives. He has also been a successful exhibitor at the Central Canada Exhibition, Ottawa.

into a receptacle. I never go to the bother of soaking old combs in water, as there is nothing to be gained by it. Put them right into the pails on the stove. With two or three sacks expeditious work can be done, and the sacks can be used over and over again until they burst. Above all else keep a hurry up fire on the stove. This steam or hot water wax press is an innovation of my own that will do the job quickly and cleanly.

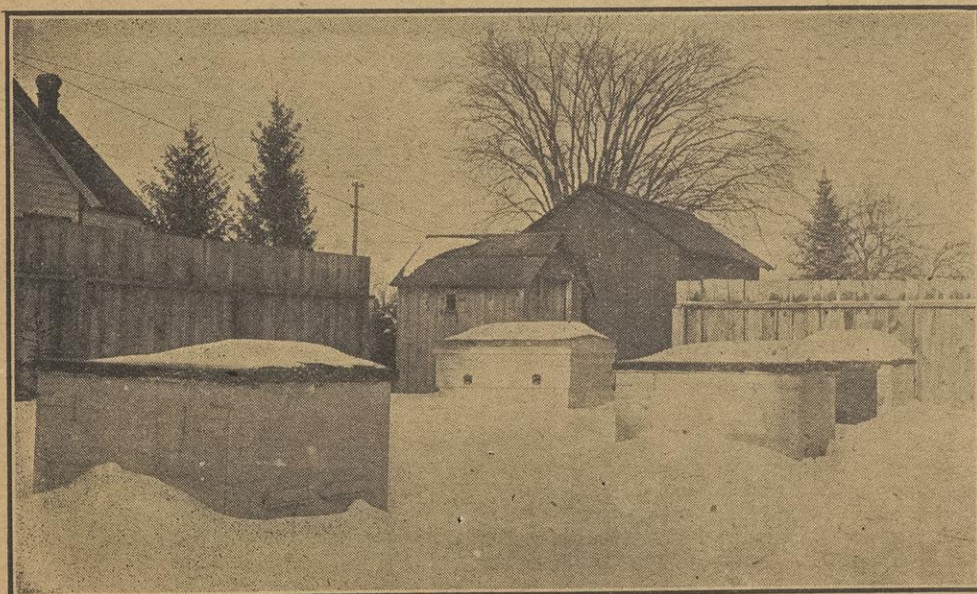
Outdoor or Indoor Wintering

THAT question is being asked hundreds of times. If one lives in a locality subject to continuous zero weather for weeks at a time, and especially if he lives in a hilly country where he can have side-hill repositories, we would advise the indoor plan. The past winter showed that those who wintered in cellar, especially with side-hill cellars, had stronger and better colonies than those who wintered outdoors. This is not saying that bees can not be wintered outdoors in the colder climates. Some of our best beekeepers did it last winter and had rousing colonies in the spring.

In localities where the winters are more open, and the bees have an opportunity for a flight four or five times during the midwinter, we would advise the outdoor method.

What shall the small beekeeper do who has only a few colonies? If he lives in a cold climate, he can winter in a cellar where there is a furnace. The bees should be in a room separate from the furnace room. Twenty-five or thirty colonies will winter in such a place very nicely, even in warm climates, if sufficient ventilation is provided; and this can be done very well by leaving the door ajar from the beehive room into the furnace room.

If one will properly pack in a milder climate, the chances of success are better outdoors than indoors. Control of temperature and ventilation in a cellar is a nice art, and beginners may not be able to master it.—Gleanings in Bee Culture.



Wintering Bees on the Central Experimental Farm, Ottawa,

The Ontario Provincial Apiarist

Morley Pettit

It is with considerable satisfaction that the former provincial apiarist announces the appointment of a most worthy successor in the person of Dr. B. N. Gates, A.B., M.A., Ph.D., late of the State College of Agriculture, Amherst, Mass.

Born on Dec. 19th, 1881, in Worcester, Mass, Burton Noble Gates graduated in



Dr. Gates, Ontario's New Provincial Apiarist.

Arts from Clark College in his home city in 1905. He took his Master's degree from Clark University the following year and at once began lecturing on beekeeping at the State Agricultural College. In 1907 he became Apicultural Assistant in the Bureau of Entomology at Washington, D.C., where he remained, doing excellent work under Dr. Phillips, until 1910. In 1909 he prepared a thesis on cluster conditions in winter, for which he was granted the degree of Doctor of Philosophy by Clark University. During this time Dr. Gates' annual course of lectures at Amherst was not interrupted and in 1910 he resigned his position at Washington to become Assistant and Associate Professor of Beekeeping, Apiarist of the Experiment Station, and Inspector of Apiaries for the State of Massachusetts.

The beekeeping work of the Massachusetts Agricultural College was started with Dr. Gates coming to Amherst from Washington. At the same time the inspection of Apiaries under the State Board of Agriculture was started, the legislative act having been passed during the session of 1910. He has been very successful in developing all phases of his work about the limit to which it can be developed in a state which does not contain very much more beekeeping territory than one of the larger counties of Ontario. He is an active and tireless worker and to use his own phrase, he "knows every gate-post in the state."

Dr. Gates is a prominent figure in United States beekeeping, being a past president of the National Beekeepers' Association. Nor is he unknown to Ontario beekeepers as he has assisted the writer in Short

Courses at the Ontario Agricultural College on different occasions.

When the development of the Pettit Apiaries reached the stage that it seemed advisable for me to resign from the provincial work he came first to mind as a desirable successor; but he was not available at that time and arrangements were made with a recent graduate of the O.A.C., who is doing excellent work in another of the United States colleges, to come on at once and avoid any break in the continuity of the work. The delays of red tape lost us the opportunity, however, and Dr. Gates was approached.

It is understood that he is to be Professor of Apiculture and Provincial Apiarist, and that on Option in Beekeeping is to be established in the fourth year of the course at the O.A.C. This will enable young men who are beekeepers or who become interested in beekeeping during the first year lectures in this subject to continue the subject during the second and third years and specialize in it for graduation. If this plan is carried out it will put beekeeping on a more equal footing with other branches of agriculture at the college. This is what the writer strove for with but scant recognition during his term of office. Many reforms only come by revolution.

Opportunities for beekeeping specialists were never better anywhere than in Ontario at present. While there is much yet to learn, the knowledge necessary to overcome the three greatest handicaps, swarming, wintering and disease, is available. Henry Ford and good roads have made the management of chains of apiaries under one expert profitable. The success of men who have become experts through arduous years of self-training is so manifest as to abolish the close corporation which some have tried to maintain. People are going to try to keep bees. As a war measure, at least, they should keep them.

The new provincial apiarist is to commence his duties September first, and we bespeak for him the hearty co-operation of all with whom he will have to do.

My Experience in Wintering

C. D. Chittenden.

THE past winter has been one of unusual severity on the bees, a great many colonies all over the country having succumbed to the intense weather and to conditions which properly are classed as not normal.

Having wintered four hives in a wintering box made according to plans contained in the O.A.C. Bulletin, "Wintering Bees in Four Hive Boxes, Experiment No. 10," successfully, despite the fact that the mercury hovered from 10 degrees below zero to 36 degrees below for weeks, the bees when examined early in April were found to be in a flourishing condition, brood, pollen and stores being found in abundance.

Last fall 35 lbs. sugar syrup was fed to three colonies and 25 lbs. syrup to the fourth colony, it being somewhat weak. When preparing for packing, the covers were removed and boards tacked on with a wire screening 8 in. long and ¾ in. wide running down the centre. Then placed in the wintering box, a square of burlap placed over the screening and cut straw packed to

a depth of about 8 inches over the boards. Lastly, the hive covers were placed upside down on top of the straw to give compression, the covers being placed upside down to give the moisture as it rises through the screening into the straw a ready and practically unobstructed escape.

During a warm day in the latter part of February the writer dug down through the straw to the screening and was surprised to find the straw warm for a depth of six inches after that icy straw frozen to the galvanized iron covers. Below the screening the bees were lively and very much alive. Since making a thorough examination a few days ago I am well satisfied that it is to the best interest of the bees and beekeepers to pack the hives such that the moisture has a ready exit. To my mind, this winter's experience firmly and conclusively demonstrates that bees need upward ventilation.

I will not be surprised if this is not acceptable and is attacked by the exponents of hives with sealed covers for wintering.

An Unusual Record

An editor of The Beekeeper, who met Mr. J. L. Byers, of Markham, at the Canadian National Exhibition, learned from him that he had had unusual success this year with one of his out-apiaries. At the beginning of the season this apiary comprised 59 weak colonies. He was able to visit it only five times during the season until he went out to extract.

In the middle of May only 24 of the colonies had over three combs of brood. The season, however, was very late. From these 59 colonies Mr. Byers obtained an average of 100 lbs. of clover honey each and the colonies increased to eighty-six colonies. Mr. Byers expressed the opinion that had he taken these colonies to Markham at the beginning of the season they probably would not have averaged over 25 lbs. to a colony as the season there was much earlier. A beekeeper of many years experience told Mr. Byers that he had never known any colonies that were so weak at the beginning of the season to do so well under similar conditions. Mr. Byers frankly states that not all his apiaries this year were as successful as the one in question.

Price of Honey

The demand for honey this fall is so strong, beekeepers who have the courage to ask for the price set by the Honey Committee of the O.B.K.A. do not seem to be having much trouble in securing it.

Mr. J. L. Byers, of Markham, told The Beekeeper recently that he was oversold. One dealer accustomed to buying from Mr. Byers was so anxious for honey that he persuaded Mr. Byers to accept his order for 40 sixty-pound tins of clover honey not to be delivered for some weeks yet, at 24¼c per lb. F.O.B. shipping point. This dealer would have been glad to have taken more at the same price if Mr. Byers could have furnished it. Mr. Byers has been offered 18c for buckwheat honey, but expects the price will be 20c before long, F.O.B. shipping point.

Mr. Geo. Lang, whose exhibit of honey at the Canadian National Exhibition attracted wide attention, met with a strong demand for honey, which he supplied at the rate of 50c for the best sections and 40c for No. 2. While some people thought this price high and did not buy it, others paid it quite willingly.

Don'ts for Apiculturists

By D. M. Macdonald

DON'T tinker with Inferior Bees. Most cheap articles are dear in the end. Poor, mongrel bees cost as much to house as those which may be called first class. They are as costly to start when furnishing the new home. Frames, brood foundation, the wire, the process of inserting, fixing and wiring, cost the same. The result of the first season's work in the one case is generally all that could be desired, in the other, comb construction is poor in quality and frequently proves defective, then and for all time. Poor bees often propolize over much, thus causing the workers needless labor and imposing on their keeper worry which proves a heavy tax on his temper when manipulating, and not conducive to good temper in the bees. Mongrels are almost invariably cross-tempered. At the end of the season with the good bees, bumper crops of well-finished, shallow frames or sections are all but a certainty. The poor bees, in nine cases out of ten, at least, give poor returns, and that of poor quality and defective finish. The first will give several crates, the others will lag far behind. Packing for winter is a pleasure with the best bees. Every colony has strong forces, ample stores, and many newly-hatched bees. In the other case few bees, a poor cupboard, and too many aged workers make wintering a doubtful asset. Keep the best bees, in the best way, packed with the best winter packing—bees.

Don't Keep Low Grade Queens.—This point is not quite on all fours with the previous don'ts. The same, or somewhat similar results, may occur here again, but there are added drawbacks. A queen guaranteed to lay 50,000 eggs in the time a weakling takes to lay less than half that number gives the population an enormous pull over the inferior one. The results are not in proportion to mere numbers alone. The strong one will not only have double the population, but will present its owner with at least four times the surplus, a point well worth considering. Its work, too, will be more highly finished, be completed in far less time, and approach nearer to perfection. On account of the larger numbers the strong colony will forage earlier in the forenoon than the laggard. They will go farther afield, thus frequently obtaining richer for-

age grounds, and they will make flights to the bee pastures on days when the other remains indoors. They will manufacture wax quicker, build comb more expeditiously, and seal stores with less trouble and greater speed. The weakling will worry carrying propolis to glue up every corner in case of draught, the powerful can sustain internal heat without any trouble. Then, as a matter of fact, the strong actually consumes less stores relatively, or at times actually, than the small number. The cause is patent.

Don't Manipulate Out of Season.—Bees are best left alone for about half the months in each year. Winter is a season of repose in the hive interior. Bees exist then in a state of semi-hibernation. Every ounce of calorie-generating food consumed as a result of disturbance is not only needlessly wasted but it acts injuriously, for the agitation begot in the cluster tends to weaken and prejudicially affect the digestive system. To restore the temperature of the disrupted cluster, food must be consumed, and the bees may be forced to take untimely flights to void their feces. In general, the caution applies to too late examinations in autumn and too early inspections in spring. Any attempt at late feeding to remedy defective stores or early stimulation to start untimely breeding, works evil and not good. "Jumping" the frames, your equivalent of our phrase "spreading the brood," in early spring, causes mischief. Opening hives when weather is cold or when a chill wind is blowing, is a blunder which may destroy brood and drive workers from the supers.

Don't Buy Cheap Articles.—Cheap and nasty are often synonymous terms. A cheap second-hand hive may ultimately turn out a dear one. A novice should never be beguiled into investing in colonies offered "at an old song," because an odd sized hive may be dear at any price, as none of its parts are interchangeable with other hives in your apiary. No worse investment can be made by the beginner in apiculture. Even a parson may be guilty of thus beguiling the unwary. Purchase your bees, if possible, from a near neighbor, a man of probity, on whom you can rely, or treat with an appliance dealer of repute. Such men have to obtain and sustain a good name. Be prepared to give a good price for a good article,

the regular market price being a safe guide.

Don't Forget the Profits.—The laborer is worthy of his hire. Some of my hives gave me profits of from \$20 to \$25 last season, and certainly the pleasures and joys of beekeeping were not lessened by the total drawings being relatively high. Honey has been in abnormal demand. Profits are considerably enhanced when careful saving is practiced. Purchase only what appliances are actually necessary to run your apiary. Be economical without being parsimonious. Encourage no waste. Collect and preserve every particle of wax, and at a convenient season melt it into cakes. Discard no frame that is not really defective, and don't throw away pieces of comb, especially if they are constructed of worker cells. Special care should be taken of all shallow surplus combs from year to year, and of all brood frames not covered by the bees during the winter. In countless ways similar care may be given to tools and appliances, thus doubling, it may be their total existence, thereby raising the balance on the credit side at the conclusion of each honey season.

Don't Value Apiculture for Profits Alone.—M. Maeterlinck practically but graphically strikes the right key-note in regard to the pleasures of beekeeping: "For one who has known, studied and loved bees, a summer without them would be like one without birds and flowers." The writer felt the force of this the season when disease wiped out his apiary. At last a happy thought dawned on him, that if the mountain could not come to Mahomet, he could go to it. Perforce, as if drawn by a lodestone, he was drawn to the bees, and in no other season were so many outside apiaries visited.

Honey Crop Report

The Crop Report Committee of the Ontario Beekeepers' Association met in Toronto on Thursday, August 8th, 1918. Owing to the serious situation in regard to sugar for fall feeding, the Executive Committee of the Association was also called together for consultation. Reports were received from over five hundred of the members in Ontario and from correspondents in Quebec and the United States. The Ontario average per colony reported was 62.4 lbs.

The losses in bees last winter were much heavier than normal owing to the unusual severity of the winter and lack of stores, and the committee urges all beekeepers to protect themselves against further loss by ample feeding this fall.

In view of these conditions, the committee recommends the following prices:—

Best quality light extracted, wholesale, 24c to 27c per lb.

Best quality light extracted, retail, 5c to 8c higher.

No. 1 comb, wholesale, \$3.00 to \$3.75 per dozen.

No. 2 comb, wholesale, \$2.00 to \$3.00 per dozen.

At the present time the market is very strong both here and in the United States. All last year's crop is out of the retailers' hands.

Beekeepers are cautioned not to sell second grade honey for table use, but to sell it to biscuit manufacturers. The prices recommended are f. o. b. in 60 lbs., 10 lb. and 5 lb. tins, the former being net weight, the latter being gross weight. The lower prices should be quoted to wholesale and commission men and the higher wholesale price to retailers. The size of the order and style of package should be taken into account in determining the retail price.



An out apiary in Manitoba.

A Fine Fruit Exhibit at the Canadian National Exhibition

THE display in the Horticultural Building at the Canadian National Exhibition was unusually attractive and well arranged. It filled the building nicely, thus being an improvement on some years recently when bare tables were in evidence. The displays by professional florists were large and attractive and made a most pleasing appearance in the main building. The exhibits of cut flowers by amateurs were also good, while the seed and nursery firms had well staged exhibits.

The Fruit Exhibit.

While the number of exhibitors in the fruit section was not as large as was the case a few years ago, the total exhibit was, if anything, larger than last year, while the quality of exhibits on the whole left little to be desired. At one time there used to be a number of amateur exhibitors in the fruit classes. Year by year their number has been decreasing while the larger exhibitors have been, if anything, extending their exhibits. This year the number of exhibitors was less than a dozen. The quality of exhibits on the whole was fully better than that of last year, although there were some exhibits that were below par. The chief defects this year were a lack of size and color in apples. This was due to lack of moisture in the soil and to the season in some districts being somewhat late. The chief exhibitors, however, had as good fruit as in a normal year. They know the character of fruit required to win and do not exhibit unless they can obtain it.

The commercial packages were judged by Mr. P. J. Carey, of the Dominion Fruit Division, who has acted in this capacity for some 14 years, with one exception. Associated with Mr. Carey was Mr. W. G. Smith, a wholesale dealer of Toronto. After completing their work, the judges recommended that in future classes should be provided for wrapped and unwrapped fruit and that a class should be created for McIntosh Reds. At present many good varieties of apples are not specified in the prize list and are shown in the class for any other variety. This year the McIntosh Red had to be shown in this class.

Improved Packing.

Mr. Carey reported that he found the packing better than ever before, especially in regard to the proper placing of the fruit in the boxes. There were excellent exhibits of King, Spy, Baldwin, Golden Russet and Rhode Island Greenings. McIntosh apples were scarcely up to the mark as they seemed to be a little misshapen and not sufficiently colored. The principal exhibitors were Roderick Cameron and Furminger Bros., of St. Catharines, and J. B. Fairbairn, of Beamsville, who had excellent exhibits of both apples and of tender fruits. These men furnished the bulk of the exhibits. Gordon Brecken, of Bronte, showed some excellent Rhode Island Greenings and other varieties.

The awards for the most attractive displays of fruit went first to Roderick Cameron, second to Frank Furminger and third to W. J. Furminger. Mr. Cameron's exhibit was well displayed and contained much the most fruit of any of the exhibits. It comprised apples, pears, peaches, plums, grapes, quinces, gooseberries, cherries and currants. Mr. Frank Furminger's exhibit did not contain the quantity of fruit nor the variety of

Mr. Cameron's exhibit, but in some respects was even more tastefully arranged. Mr. W. J. Furminger showed nothing but plate fruits.

The commercial exhibit of plums and pears was exceptionally fine. Peaches were riper this year than last and of better color. Grapes also were an improvement over last year's exhibit. Mr. F. J. A. Shepard, of St. Catharines, who judged the grape exhibit, found it larger and better than a year ago, the entries in grapes probably being double those of 1917. Leading varieties such as Moore's Early, Moore's Diamond, Concord, Campbell's Early, Niagara, Warden, Delaware and Lindley, were all good. The exhibit of Yellow St. John peaches was particularly fine. Roderick Cameron's collec-

A Word From the Acting Editor

During the past year and a half The Canadian Horticulturist has had two editors, both of whom are now in his Majesty's service. One is serving with his battery overseas and the other is undergoing training in the Royal Air Service. These enlistments have somewhat disorganized our editorial work and has necessitated the work being done temporarily at least by other members of the staff. It is responsible, also, for the fact that during the past few months The Canadian Horticulturist has been a little later than usual in reaching its readers. We hope ere long that the magazine will once more be issued regularly the first of each month.

For some time our supply of photographs of fruit, flower and vegetable subjects has been becoming depleted. Whether or not war conditions have led our readers to pay less attention to the taking of photographs we cannot say. Readers who have good photographs of a horticultural nature are invited to send them to us for publication. Many of our readers who have achieved success with war gardens this year have surely something to show illustrating the results of their work. If so let us have them in order that others who are interested in the same subjects may profit by your example.

tion of 10 varieties deserves special mention. It included the St. John, Foster, Early Crawford, Fitzgerald, Champion, Elberta, Triumph, Jacques Rare Ripe, Engles and Mammoth varieties.

Pears and Plums.

Entries of pears and plums were judged by Messrs. E. G. Palmer, of the Horticultural Experiment Station, Vineland, and Leslie Smith, of the Department of Agriculture, Toronto. The number of entries was fewer than in past years, but the fruit was of high quality and very clean. In pears all varieties shown were good, particularly Clapps Favorite, Bartlett, Anjou and Duchess. In plums what was lacking in quantity was

made up in quality. As a whole this exhibit surpassed the exhibit of pears in general excellence, all varieties being very fine. In crab apples, some particularly fine plates of Whitney were shown.

"Generally," said Mr. Palmer, "the number of entries of inferior fruit was less than in former years, showing that exhibitors are improving in their selection of specimens as a result of experience gained at previous exhibitions. The fruit shown was remarkably clean. Very few specimens of apples and pears showed scab, while codling moth was conspicuous by its absence. Last year several entries of plums showed the San Jose Scale. This year no evidence of this disease was found."

Changes suggested in the Inspection and Sales Act

IN reply to a request from The Canadian Horticulturist for his views in reference to the recent amendments, made in the Inspection and Sale Act, Mr. W. F. W. Fisher, of Burlington, Ont., who was one of the delegates who attended the conference held in Ottawa to discuss the proposed amendments before they were made, has advised us that he considers them in the aggregate to be an improvement on the former act as they have removed some anomalies and made clear certain portions of the act which before were open to doubt.

Clause D., of section 319, describing immature fruit, states that it means "fruit not ripe enough for dessert purposes and which will not attain such condition after being picked from the tree, bush, plant or vine." Mr. Fisher believes that this description does not meet the need as it does not cover the demand for certain varieties of fruit which are never picked in condition suitable for dessert purposes, such as gooseberries and many varieties of plums, which canners require to be picked before they lose their acidity.

Mr. Fisher also believes that fruit from foreign countries which demand that Canadian fruit entering their borders shall be packed in packages of certain capacity, should be met with a compulsory clause demanding that they comply absolutely with the capacity of packages enforced on our own producers. Anything short of this he feels is manifestly unfair to Canadian growers.

Clause 329, section 9, provides that "no person shall sell, offer, expose or have in his possession for sale, any fruit in any packages that has been repacked, unless such packages are well and properly filled." Mr. Fisher states that in the judgment of many people this clause cannot be enforced and would not stand under review by a higher court.

One of the best amendments in the act in Mr. Fisher's opinion is found in section 331, which provides that "every person who carelessly handles, wilfully destroys, or pilfers any fruit, packed in any of the packages prescribed in the act, shall be guilty of an offense and liable to a penalty not exceeding \$25." After a few prosecutions have been successfully concluded Mr. Fisher believes this section should afford considerable protection to many long suffering fruit growers. It should provide also for more speedy redress than formerly from the express companies, whose employees had become notorious for shortages in the delivery of shipments.

The Inspection and Sales Act

P. J. Carey, Chief Fruit Inspector, Toronto, Ont.

ALL the amendments to the Inspection and Sales Act enacted at the last session of Parliament came into force at once, with the exception of those relating to the sizes of fruit packages. In the case of these regulations the time for their enforcement has been extended until 1919, in order that the manufacturers of packages and growers may have an opportunity to dispose of their old stock.

The two amendments having the most noticeable effect on the marketing of fruit are those relating to the placing of the growers' names on all packages of fruit, and the requirement that "all packages shall be well and properly filled."

It has long been argued, and I think successfully, that if the growers would place their name in full on every package of fruit offered by them for sale, it would be evidence that they were ready to stand behind their pack. This would give evidence on their part of a desire to build up a reputation for growing good fruit.

It is not my intention to criticize present marketing methods, although some are admittedly faulty, but too many of our growers have been losing their identity when it came to the matter of marketing their fruit, and under the old conditions it was hard to trace the faulty pack.

The enforcement of this amendment is already producing good results, as there has been a marked improvement in the packing of fruit this season. This applies also to

the proper filling of packages, as there has been a great improvement shown also in this particular. Individuals may differ in their conclusions on almost all matters, but there is one thing upon which all are agreed—namely, that every purchaser likes to receive a full package. This is true even of the fellow who does not fill his own baskets when he offers them for sale. In a word, proper care and honesty practised by the original packer will count 90 per cent in successful fruit marketing.

Faulty Packing.

In dealing with faulty packing, it should in fairness to our thousands of good growers be shown that the great bulk are making an honest effort to meet the requirements of the Act, and many are aiming at even higher ideals than the law calls for.

The percentage of faulty packers can now be called small, and it is gradually growing less.

Another amendment that meets a condition that in previous years has caused an almost endless number of complaints is that relating to the careful handling of fruit in packages. It is now a punishable offence to handle packages roughly while in transit, and pilfering is also made an offence by law.

The new amendments governing fruit packages, when they come into force, will have the effect of giving us a uniform apple box, a uniform apple barrel for the continent, as well as uniform fruit baskets, the

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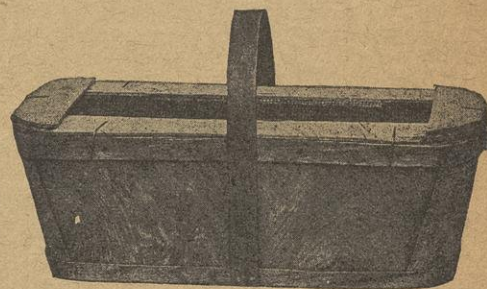
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number of which will be reduced to a minimum. As it was expected that they would be when they were endorsed by the fruit growers and adopted by the Government, it is evident that the changes in the Inspection and Sales Act are going to prove far-reaching and beneficial in their effects.

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British Columbia

Chas. L. Shaw, Victoria, B.C.

THE 1918 apple crop will be below the average, although prices will probably be somewhat advanced. Jobbers believe that the crop shortage, the high price of boxes, freight and labor will force quotations away up, but advance sales hardly justify this opinion, and it is pointed out that jobbers are too much inclined to make their calculations on the figures of two or three years ago, when the apple market was so unprofitable to the farmers that many grew discouraged and abandoned their orchards. In the northwestern states the crop will not exceed 75% of last year's. The apple situation will benefit by the improved transportation facilities this year.

The brine tank car is obviously unsuitable for fruit storage. Vancouver Island strawberry men tried it out this summer, as told in last month's Horticulturist, and declared it to be a failure. Now some Washington apricot growers have met with the same result. Apparently the system of cooling has too much moisture present for berry and soft fruit carrying.

B. C. fruit growers commend the attitude taken by H. B. Thomson, Chairman of the Canada Food Board. Mr. Thomson recently stated that because fruit is not a necessity of life and because it would be unfair to the grower to take such action, fruit prices are not to be fixed.

R. C. Treherne, Dominion Entomologist Field Officer, has issued a warning to prepare resistance to an expected invasion of British Columbia by the lesser migratory locust. The pest has already visited Wenatchee, Washington, and is headed north.

Australia, which in past years has provided a profitable market for British Columbia's orchard produce, will be closed this year, according to a cable received from D. H. Ross, Canadian Trade Commissioner at Melbourne.

As indicated in The Canadian Horticulturist last month, the apricot crop of B. C. this year, particularly in the Summerland district, will be far and away ahead of any previous one. Last year the union sent away six carloads. To date, this season, it has shipped thirteen cars, including the output of the Naramata house, and three carloads remain yet to be dispatched. The Stewart Fruit Company is also making heavy shipments and is looking forward to production equal to last year's.

Just on what grounds they base their calculations is uncertain, but farmers out here are expecting high prices for potatoes this fall and winter, many of them having visions of \$60 and \$65 a ton. The same opinion was held earlier in the year in the Pacific Coast states, but the rainfall which has followed since then tended to change the situation. It is now anticipated that the evaporating plant of the Dominion Products Company at New Westminster will soon be re-opened after several weeks' suspension of operations.

The first full car of Okanagan fruit reached the Pacific Coast cities during the second week in August. It contained plums, peaches, pears, apricots and tomatoes. Everything was reported to be in excellent condition.

The Okanagan Valley has sent the last of its record cherry crop rolling away towards prairie and coast. The figures obtainable show that the total cherry shipments from Summerland alone are fully

double those of last year. Both the Stewart Fruit Company and the Fruit Union report their 1918 output as twice as heavy as last year's. A notable feature of the cherry business this year was the volume of fruit put through the pre-cooling plant operated by the Summerland Fruit Union and shipped in car-lots. Eleven cars, some of them heavily loaded, started from the pre-cooler for points as far east as Toronto. The equivalent of five carloads of these were shipped direct from the union, the several locals affiliated with the Okanagan United Growers being responsible for a portion of the car-lot shipments.

All along the banks of the North Arm of the Fraser River in South Vancouver, the sidehill and bottom land gardens are yielding big root and fruit crops this year. The

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Minister of Lands, Forests and Mines.

Oriental vegetable gardens that have been supplying the city of Vancouver for years, and which have been highly cultivated this year, have responded to the care given them, with the result that, despite a month of drought, the potatoes and other crops are running at a high average per acre. Carrots were given special irrigation during the dry spell and are now in prime condition.

G. E. McIntosh, in charge of fruit transportation for the Fruit Branch at Ottawa, has been a recent visitor to Victoria and

Vancouver. He proceeded into the up-country sections to consult with the growers on various questions concerning them and his department. He stated that the government will exercise every effort to give British Columbia fruit growers good service in the way of transportation, and the reduced wheat crop and consequent lighter demand for cars should make this object easier of attainment than during the past two years.

"B. C. growers would be well advised to grow late stuff rather than early for the prairie market, in many cases, and never early varieties of inferior size and appearance," wrote J. A. Grant, British Columbia Prairie Markets Commissioner, in a recent bulletin. "B. C. shippers who receive a big price for their first early fruit on coast markets," he goes on, "are often disappointed in their returns for the same goods sold on the prairies. The conditions are altogether different in the two points. The prairie draws its supplies from many early points in the United States and early varieties are generally small and poor in quality by comparison with later sorts. Our early varieties come into competition with later and better varieties from places where the seasons are earlier. Some parts of Oregon and Washington will have reached the peak of the season when ours is just beginning. They ship largely to Calgary, and our supply of early inferior varieties is entirely discounted by them. Late stuff always finds a good market, at a good price, when all competitive stuff is off the market, and B. C. has the field to herself with the best quality of goods."

The Summerland Review is just now engaged in an editorial campaign for the es-

(Continued on page 229.)

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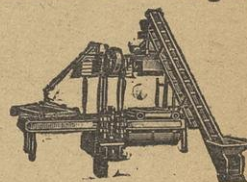
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We are in the market to buy your Honey in large or small lots. Any quantity handled. Excellent prices offered. We provide 60 lb. tins and pay carriage both ways.

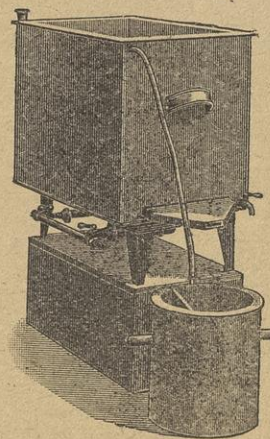
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PURE FRUIT PRESERVERS

Hamilton - Ontario

Canada Food Board License No. 14-262.

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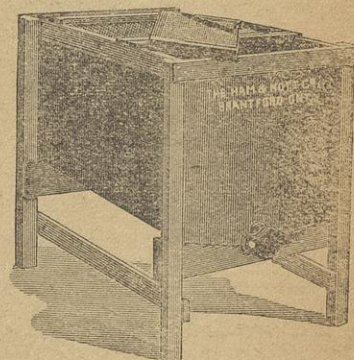


CAPPINGS MELTER
and SEPARATING CAN

Water jacketed, invaluable for melting cappings and saving the honey. Price with separating can, \$17.00.

UNCAPPING BOX

Something new and better than ordinary. This is a commodious galvanized iron box 36 x 19 x 18 inches, enclosed in a stand as illustrated. Top space for two persons uncapping, lots of room for cappings, with wire cloth strainer at bottom. Price, \$12.00.



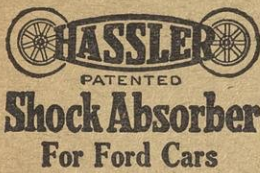
Uncapping Box

The Ham & Nott Company, Limited
Brantford, Ontario



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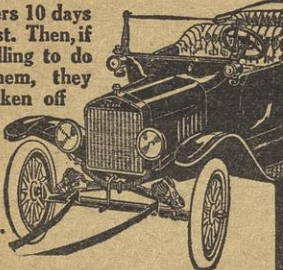
NO ONE knows how long a Ford can last. It is admittedly the car that delivers good service under abuse and outrageous care longer than any other machine. But no Ford can outlast the



Hassler Shock Absorbers are made of chrome vanadium steel. They cushion the car by *compression*—the spring is compressed to give flexibility and *not stretched*. The combination—Ford Car and Hassler Shock Absorbers—is irresistible. The Ford is transformed—it rides as easily as a \$2,000 car; sidesway is prevented and up-throw eliminated; tires last longer and repair bills are cut one-third. 300,000 Ford Owners recognize their economic necessity.

10-day Free Trial Offer

Try Hasslers 10 days without cost. Then, if you are willing to do without them, they will be taken off without charge. Write to-day, Now, for Free Trial Blank.



Don't ride without Hasslers simply because someone discourages you from trying them. Accept this offer and see for yourself.

ROBERT H. HASSLER, Limited
Lock Drawer H.C. 25 HAMILTON, ONT., CAN.

SKINNER SYSTEM OF IRRIGATION
Control complete. Prevents drought losses. Reduces labor bills. Increases profit. Special Portable Line for \$15.75. Send for new Bulletin.
The Skinner Irrigation Co.
217 Water Street Troy, Ohio.

When Writing Advertisers, Mention
The Canadian Horticulturist



September Reminders

The nights are becoming cooler and the days shorter, all of which means that winter is coming.

Now is a good time to buy new blood. By placing an order at this time a better selection can be had.

Get rid of all the surplus old hens. This will be a saving in both feed and house room. The growing stock need that.

Now that the molting season is on, it is advisable to add a little sulphate of iron to the drinking water. This will act as a tonic and strengthener.

Young turkeys that have reached the first of this month in good health are practically safe. They make rapid growth and development in September.

The March-hatched pullets are beginning to show indications of winter work. Some are laying, while others are reddening up and learning to sing.

Plow up the empty duck runs and sow rye in them. This will disinfect them and also grow valuable green stuff.

Remove all the male birds from the flocks, keeping them separate until about the first of the year.

Make sure that you provide a proper variety of rations for the poultry this winter.

Save every head of late cabbage for green feed. They are excellent for the layers in winter.

Clip every sunflower head off and save it for the poultry. The seeds make a fine feed for the fowl, being laxative in their effect.

All surplus carrots, turnips, and similar vegetables should be carefully stored and used as the vegetable part of the rations for the poultry this winter.

Clean the poultry buildings early—and keep them clean.

Lice should be dealt one last fatal blow as they stick closer and are even more determined in winter than in summer.

Building paper on the inside of the open poultry house, and cheap roofing on the outside will promote egg production next winter.

Clean up all rubbish piles about the house. Such places become the headquarters for rats and other enemies of poultry.

During molt give the same feeds as for egg-production, but richer in nitrogen, which can be obtained in meat scraps, oil meal, green cut bone, sunflower seeds, etc.

Small potatoes wasted by most people at digging time can be boiled and made to serve the flock well during the winter months, working them into the mash of bran and corn chop.

A shed open to the south for sunlight is indispensable to winter egg production, as it affords a place where the layers can secure the essential exercise on stormy days by scratching around in the litter for their grain.

Molting is not a disease, but a condition that proves fatal to weak fowls. The great drain upon the system while casting off the old and growing the new coat of feathers, calls for strong vitality.

Feather pulling is apt to be acquired during the molting season, especially when the pens are crowded. The young stubs of feathers are plucked, mischievously at first, and finally intentionally. After the salty substance in the quill of the feather appeals to the culprit, it is a hard matter to check the vice, and the rest of the flock is readily taught the same thing.

The dusting bath being a very important item for the layers during the winter months, one should store a barrel or two of thoroughly dry field or road dust and ashes, having a large box in one corner of the scratching-shed for the fowls to dust themselves in and get rid of the lice. A handful of sulphur in each boxful will prove an additional help in their fight against these pests.

Charcoal is essential for poultry in winter, but if secured commercially it is very high in price. The poultry man may as well make his own charcoal. Besides the pit method, a much simpler method is to pile old scraps of boards, posts, chunks of wood, etc., into a heap and set them on fire. When they become a mass of live glowing coals, check the burning by sprinkling water over the fire, or better still, smother it out with damp straw or hay or wet cobs. This will furnish an abundance of charcoal of superior quality and the cost is practically nothing.

SEEDS

Wholesale

IMPROVED FARM ROOT SEEDS

IMPROVED VEGETABLE SEEDS

IMPROVED FLOWER SEEDS

Seedsmen please enquire for our SPECIAL PRICES

KELWAY & SON, Wholesale Seed Growers
LANGPORT, England

Cable Address: KELWAY, LANGPORT

DOUGLAS GARDENS

Catalogue for 1918

Contains a complete list of a number of new plants that will interest customers this season.

A fine assortment of Paconies. Perennial plants of all kinds. Shrubs and roses.

BEDDING PLANTS

Standard Fuchsias from 2 to 3 feet. Carnations of the finest varieties. Heliotrope, Cowslips, Salvia, Salpiglossis, Snapdragons, Pentstemon, Lobelias, Pansies, Ageratum, Verbenas, Asters and Stocks.

ERICK ERICKSON
OAKVILLE - ONTARIO

British Columbia

(Concluded from page 227.)

establishment of a fruit cannery in Summerland next year. The paper points to the fact that four canneries are being put in readiness at Kelowna to take care of that district, that a smaller plant is being installed at Benvoulin, and that there is a good prospect of Okanagan Centre getting a cannery too. The cannery and jam plant that formerly operated in Summerland is now idle. "It is admitted that nowhere are

there grown better tomatoes than are produced here, and nowhere else in this country beyond a limited area right around can apricots be obtained for jam making. With the greatly increased production of the last few years we now have these things in sufficient bulk to keep cannery and jam plant busy. Now, Summerland is losing out while other towns are taking our raw products and converting them into commodities of trade with greatly increased values."

An 80 per cent apple crop is reported in the Gordon Head and Saanich districts. Be-

tween 5,000 and 6,000 boxes constituted the pick and three-quarters of this amount was sent east of the Rockies. Dry weather has been the big set-back to the apple crop this year. The skins hardened and the fruit reached, in many cases, only premature growth.

The Oregon Agricultural College, of Corvallis, Oregon, has a bulletin of special interest to pear growers, entitled, "Pear Harvesting and Storage Investigations in Rogue River Valley." The results of Seed Potato Certification in Oregon are given in Bulletin 295.



IMPERIAL SERVICE

If you are in doubt about the proper lubricant, *ask the Imperial Oil man*. He will give you courteous attention and sound advice on your lubrication problems. That is part of Imperial Service.

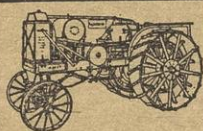
NOT ONLY GOOD OILS — CORRECT LUBRICATION

YOUR automobile, tractor or stationary engine can do its best work only when it is correctly lubricated. Your horses can do their work more easily when your wagons and farm machinery are correctly lubricated. All your machinery will wear longer, give you more satisfactory service and less repair expense if you use the correct lubricant in each case.

There is a just-right oil for every mechanical purpose—an oil manufactured by Imperial Oil Limited for each lubricating requirement. You can get it in any part of Canada—at any Imperial Oil station. There is one near you.

Imperial oils are supplied in steel barrels and half-barrels—convenient, economical. No waste. You use every drop you pay for and know that every drop is uniform and clean.

A Correct Lubricant for every Farm Machine



For Gasoline Engines,
Tractor, Auto or
Stationary
POLARINE OIL
STANDARD GAS
ENGINE OIL

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POLARINE OIL
HEAVY

IMPERIAL KERO-
SENE TRACTOR
OIL
(Recommended by Inter-
national Harvester Co.)



For Open Bearings of
Farm Machinery

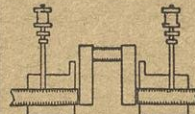
PRAIRIE
HARVESTER OIL
—very heavy body,
resists cold, won't
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ELDORADO
CASTOR OIL
—a thick oil for worn
and loose bearings



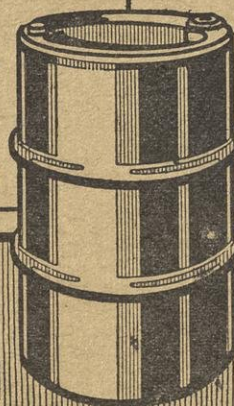
For Steam Cylinder
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CAPITOL
CYLINDER OIL
—the standard pro-
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IMPERIAL OIL
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BRANCHES THROUGHOUT CANADA



We Build
GREENHOUSES
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a Century
It Has Been
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Niagara District Notes

F. G. H. Pattison, Winona, Ont.

DURING August and part of July we had some very warm and dry weather in the fruit belt. Four times at Winona the thermometer soared to 100 degrees in the shade and over. In consequence the raspberry crop was considerably shortened and blackberry crop, already much affected by the winter, was prematurely dried up. Early tomatoes were much injured and dry rot has been more prevalent than for years past. It has seriously affected the early crop and, unless we get rain soon, will shorten the canning crop materially as well. Early potatoes promised well and were just starting to mature when the hot spell struck them. This had the effect of preventing them from obtaining their proper size, and the tubers are unusually small. In addition the excessive heat and drought caused the leaves to curl and wilt, and, in some cases, to prematurely die. This had the appearance of ordinary blight, but was quite distinct from it in many respects, and attacked plants which had been well sprayed with Bordeaux.

Early peaches are in full swing now. They are only a moderate crop, but are bringing good prices from 75c per 6-quart basket to \$1.25 to \$1.50 per 11-quart. Sour cherries

turned out a pretty fair crop, particularly the Montmorencies. Towards the close of the cherry crop prices rose, and as high as \$2.00 to \$2.50 per 11-quart basket was paid.

Black currants were not much more than half a crop. Prices ran from \$3.00 to \$3.50 per 11-quart basket. Pickers were paid 40c to 75c per basket, the general price being 50c and over. Early plums are a short crop, except Burbanks, which are pretty good. Early pears are also scarce, but Bartletts are a good half crop, and Keiffers are about two-thirds of a crop. Other varieties are quite light. Outside of this district both plums and pears are very scarce, so it is likely that prices will be well maintained. At present (August 19th) 75c for 6 quarts and \$1.25 to \$1.50 for 11 quarts, are the ruling prices.

A good deal of activity exists in the canned fruit market. New jams, fruits, and canned vegetables are beginning to come on the market and prices are high. The prices for canned fruits are expected to be high on all lines. Opening prices on new crop jams as a whole have been withdrawn and new quotations available in some quarters point to further sharp advances in both strawberry and raspberry jams. Government requirements are quite likely to absorb a large percentage of the season's pack. High prices have been paid by the jam factories for fresh fruits. As for example, \$6 to \$6.25 per crate for raspberries, \$2.50 to \$3.25 for black currants, \$4.80 to \$5.25 for strawberries, and with the high price of labor and other materials added, it is impossible for canned fruit to be anything else than dear. Strawberries have proved a poor pack owing to shortage of stocks. The pea pack is good and will probably reach 100 per cent. Tomatoes should reach an average pack, but will hardly do so if the hot, dry weather keeps on. Raspberries are only fair. The corn pack will be quite light.

During the first week of August a deputation of grape growers from the Niagara District, waited upon the Provincial Prime Minister. The deputation was headed by Dr. Musgrove, M.P.P. for Niagara Falls, Dr. Jessop, M.P.P. for St. Catharines, and J. T. H. Regan, M.P.P. for South Wentworth. The object of the deputation was to obtain a clear understanding of the Provincial Government's attitude as to the sale of native wines manufactured before December 31st. After that date under Dominion regulation the manufacture of native wines will be illegal, yet no restriction is placed upon selling, that being left to the Provincial Government. The deputation asked for assurance from the Government that nothing would be done to prevent the sale of wines manufactured before December 31st. Sir William Hearst said that this was the first time the matter had been brought to his attention. He promised to consider it fully and give his decision at a later date.

It is generally considered that grapes are not likely to be more than 50 per cent of an average crop in the Niagara fruit belt. Red grapes are less than that. Prices are expected to be well maintained as there is going to be a large demand for grape jam for overseas, as well as for home use.

Early apples, chiefly Astrachans and Duchess, are coming pretty freely on the market now. Prices run from 50c to 75c per 11-quart basket. Early and fall apples

Apple and Other Fruit Packers' Attention

We are manufacturers of first class Slack Barrel Hoops and Staves and would be pleased to have your inquiries for such, for delivery in small or large quantities. This stock would be shipped from Stratford, Ont. Direct all correspondence to

MERRITT & CO.

CHATHAM

ONTARIO

Schools and Colleges

ONTARIO LADIES' COLLEGE

WHITEBY - ONTARIO

Public School to Second
Year University,
Household Science,
Music: Instrumental,
Vocal,
Commercial,
Elocution, Art.

School Re-opens Sept 11, 1918

Civic and Parliamentary
Studies, Gymnasium
Work and Swimming.

For Calendar apply to

Rev. F. L. Farewell, B. A.
Principal.

BISHOP BETHUNE COLLEGE

OSHAWA

ONTARIO

Visitor: The Lord Bishop of Toronto.

A Residential School for Girls

Young Children also received.
Preparation for the University. Art Department, including drawing, painting, wood carving and art needlework. Toronto Conservatory Degree of A.T.C.M. may be taken at the School. Fine, healthful situation. Tennis, basketball, skating, snowshoeing, and other outdoor games.

For terms and particulars apply to the Sister-in-Charge, or to the Sisters, of St. John the Divine, Major Street, Toronto. College reopens September 12.

Geo. Carl Mares, of London, England, in his elaborate book, "History of the Typewriter" says in the preface: "Since this work was undertaken the structure of the typewriter has undergone a complete revolution. Probably nothing in any mechanical art has been more marked than the progress of the front stroke visible writing machine. In this respect the Underwood Typewriter deserves all the honors which naturally fall to the successful leader of a revolution." United Typewriter Co., Limited, 135 Victoria St., Toronto.

(Advertisement)

are a fair crop in this district, but winter apples are quite light, not more than 30 to 40 per cent of an average. Greenings appear to be the best. Around Winona and Grimsby a large proportion of the growers are sending their fruit to Hamilton market this season. There is a keen demand there for both fruit and vegetables, and the cash prices are well maintained.

Fruit Inspector Biggar, of Hamilton, was in the district recently. The Inspector stated that the Niagara District is the only one in the Province having a plum crop. He thinks the tomato crop will give a good yield owing to the recent showers, and hopes that the dry rot may be checked, the prevalence of which was fast ruining tomato prospects.

The Ontario Highways Department have at last taken over the Queenston and Grimsby road as a Government highway.

General regret is expressed by the fruit growers of this district at the death of Dominion Fruit Commissioner Johnson. He was greatly respected and admired by them, and was a tower of strength to the fruit industry. He always found time to attend every year the chief fruit meetings in this district, and his presence and the information dispensed by him on these occasions was greatly appreciated by the growers. He filled the office of Commissioner exceedingly well, and the fruit growers feel that they have lost a warm and powerful friend at court, and one whose place it will be difficult to fill.

The tussock moth has been very troublesome in the cities and towns in and adjacent to the Niagara District this year. Some have adopted adequate measures for treatment, but others, alas! have let it go by default to the great injury of fruit and shade trees.

The Red Cross fruit kitchen at Hamilton, which was burned down last fall, has again started up in full operation, and has already received 500 gallons and 100 baskets of blueberries. During the past season they handled all the Red Cross fruit between St. Catharines and Hamilton. That the fruit put up at this kitchen has been greatly appreciated at the front there is abundant evidence to show. The latest is from Dr. Robert J. Renkison, Army Chaplain, as follows: "I want to let you know that in several hospitals in England and France as soon as the nurses heard that I came from Hamilton, the first thing they said was that the fruit which was sent from the Red Cross fruit kitchen there was one of the inspirations of the war. It has been of incalculable cheer to the men during their convalescence when the regular food of the best hospital does not always appeal." Mr. Machett, head of this department, stated that jam is a thing practically unknown at the present time in England, as all the Canadian product is sent to the hospitals.

Thursday, Aug. 15th marked the commencement of the summer "every day market" at Hamilton, an institution the fruit growers have been advocating for some time past. Selling continues each day till 9 p.m. and on Saturday till 10 p.m. This will be a great help to both fruit growers and market gardeners.

I consider The Canadian Horticulturist is amongst the leading journals of its kind on the continent, and a paper that has done estimable service for Canadian horticulturists. —F. Abraham, Hon. Chairman, Vacant Lot and Home Garden Section, Canada Food Board, Ottawa.

Do Your Banking by R. F. D.



14

Make the mail your messenger ; and save yourself the long rides to town.

Deposits may be made—butter and cheese cheques cashed—money withdrawn—just as easily and safely by mail as in person.

Write the manager to tell you all about this convenient plan of *Banking By Mail* —or call in and have it explained, the next time you are town.

THE MERCHANTS BANK

Head Office: Montreal. OF CANADA Established 1864.

with its 102 Branches in Ontario, 32 Branches in Quebec, 19 Branches in Manitoba, 21 Branches in Saskatchewan, 53 Branches in Alberta, and 8 Branches in British Columbia serves Rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.



For Fall Planting.

Write for our 28 page illustrated catalogue.

- Bulbs
- Seeds
- Plants
- Poultry
- Supplies

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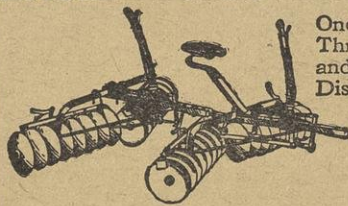
Bruce's Regal Flowering Bulbs

For Winter Flowering indoors and Spring Flowering outdoors. A House without flowers is not a Home.

	Each	Dozen	100
Crocus in four colors.....	.03	.25	\$1.65
Freezias04	.30	2.15
Lillies, Calla White.....	.25	2.50
Lillies, Chinese Sacred.....	.30	3.00
Hyacinths, Dutch, four colors.....	.10	1.10	8.50
Hyacinths, Dutch, four colors.....	.10	.95	6.50
Narcissus, Single, six varieties.....	.05	.50	3.50
Narcissus, Double, four varieties.....	.05	.50	3.50
Narcissus, Paper White.....	.07	.65	4.25
Scilla Siberica04	.35	2.65
Snowdrops, Single.....	.04	.30	2.10
Tulips, Single, Mixed.....	.05	.40	2.50
Tulips, Double, Mixed.....	.05	.45	3.00
Tulips, Parrot, mixed.....	.05	.45	3.00
Tulips, Darwin, mixed.....	.05	.45	3.00

JOHN A. BRUCE & CO., Limited, HAMILTON, ONT. ESTABLISHED 1850

BISSELL Double Action Harrows will thoroughly cultivate and pulverize any soil.



One Harrow is Out Throw; the other is In Throw. They are simply constructed, rigid and durable. The Gangs are flexible and the Disk Plates are so designed that they "hang" right into the soil. Bissell Harrows are built in sizes and weights suitable for horse or tractor use. Write Dept. N for free catalogue. 98

T. E. BISSELL CO., LTD., Elora, Ont.

These harrows will be on Exhibition at Toronto, London and Ottawa Fairs, and will also be demonstrated at the Fourth Tractor Farming Demonstration, Cobourg, September 17th-20th. See advertisement on page 232.

APPLE BARRELS

We ship them all over Ontario. Machine-made, Standard size. Get our prices.

Contracts made with Fruit Associations.

SARNIA BARREL WORKS, Sarnia, Ontario.

TREES & SHRUBS
BROWN BROTHERS Co
NURSERYMEN LIMITED
BROWNS NURSERIES. ONT.

The Fruit & Produce Market

The Commission firms undernoted wish consignments of fruit and general produce. They will be pleased to have you write them for information, shipping stamps, etc., if you have fruit or vegetables for sale.

H. J. ASH

44-46 Church St. - Toronto, Ont.

CONSIGNMENTS OF FRUIT & VEGETABLES SOLICITED

Shipping stamps furnished on request.
Canada Food Board License Nos. 3-043,
3-044 and 3-517.

DAWSON - ELLIOTT CO.

32 West Market St., Toronto, Ont.
Wholesale Fruit and Produce. Consignments Solicited.

Canada Food Board License No. 3-045,
Class II., Div. B., and 3-046, Class II.,
Div. C.

HERBERT PETERS

88 Front St. E., Toronto, Ont.

See advertisement on page vi.

Canada Food Board License Nos. 3-007,
3-008 and 3-009.

Protecting Dried Fruits

Dried fruits will escape insect pests while in storage if the fruits are heated in an oven and then stored in tightly-tied paper bags according to entomologists at the Ohio Experiment Station. A temperature of 130 degrees maintained for 30 minutes will kill all insect life present in the fruits after drying and the paper bags will keep other insects out of the fruit when stored away.

Dried fruits keep best in a cool, dry place, an attic being more adaptable than a living room where the heat varies or a cellar where dampness is present.

Beans being kept for seed may be freed from the attacks of the bean "weevil" by adding two tablespoons of hydrated or air-slaked lime to each quart of beans when stored away. The weevils enter the beans while in the pod, emerge after hulling and continue to multiply, feeding on the stored beans until their germs are destroyed.

Annapolis Valley Notes

Eunice Buchanan.

THE apple season opened with Crimson Beauties which were gathered on August 10th, and marketed at five dollars a barrel for ones and twos. A few Duchess have also been shipped, principally

thinnings. Black spot is plentiful in unsprayed orchards.

Wild raspberries have yielded a good crop. Cultivated ones retailed from 15c to 18c per box. Owing to rust in plantations the acreage has been reduced. Growers paid not less than 1½c a box for picking strawberries. Blueberries have been light and sold for 10c to 12c or more a quart. In August Greystone turnips made \$1.50 a 100, but the price dropped lately. An additional market is opened for green produce at Aldershot Camp.

The first N.S. tomatoes on the Halifax market sold for 75c a basket of six quarts. Ontario tomatoes sold for \$1.25 for a 15-lb. basket. Green beans in baskets of 5 or 6 lbs. sold for 50c. Green beans in bulk sold for 7c a pound. Cabbages retailed at 6c to 10c lb. The grower gets about 5c lb.

Grain and potatoes look good. Corn has missed in many places owing to poor seed. The hay season has been prolonged and tedious owing to the weather.

The fall web worm has been a bigger plague than usual, thousands of nests occurring in individual orchards. They are being hand picked. The birches, alders, elms and raspberries are also attacked, and some weeds.

Marketing the Peach Crop

J. E. Annis, Medina, N.Y.

I find that there is only one way to market a large peach crop; I have the best success selling to the local cold storage men. We have in Medina four large cold storages, the capacity of the four combined being 140,000 to 150,000 bushels of peaches or 140,000 barrels of apples. These are located within two miles of my packing house.

In the peach season of 1917 I sold my entire crop of peaches to three of these storage houses, selling different blocks of orchards to the different houses. They were all packed for the different dealers in bushel baskets.

We graded our peaches with a Gifford grader, making two grades, the grader being run by a gasoline engine. Its capacity is 60 bushels of peaches an hour. It was located in my packing house. The season of 1918, if the Lord gives me a peach crop, my plans are to place this grader and engine on a toad smash, the outfit to be drawn by a tractor or horses through my peach orchard, taking six or eight rows of peaches at a time, having the peaches graded; having room enough on the platform picked and delivered to the said outfit and to put on the covers after they are graded.

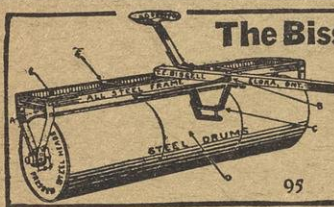
The peach wagon will deliver packages to this outfit and draw peaches to the truck after they are packed.

Books and Bulletins

The University of Illinois Agricultural Experimental Station, at Urbana, Ill., has published Bulletin 206, entitled, Field Experiments in Spraying Apple Orchards in 1913 and 1914. These tests include further tests of the effectiveness and relative value of the standard sprays on the control of fungi and insects affecting the apple crop, of several makes and brands of arsenate of lead, and certain new and proprietary fungicides, the effects of varying quantities, pressures, and nozzle openings and other similar experiments. The same station is distributing Circular No. 226, entitled, Control of Cabbage Worm.

From the New York Agricultural Experimental Station, Geneva, N.Y., may be obtained Bulletin 442, entitled, Controlling a Radish Pest; and Bulletin 447, dealing with Newer Varieties of Strawberries.

The New Jersey Agricultural Experimental Station of New Brunswick, N.J., has ready



The Bissell Steel Roller

has a rigid steel frame—no wood whatever. Large roller bearings and strong 2" axles insure durability and great strength. The Bissell is a 3-drum Roller of good weight, built to stand hard usage and give great service. Write Dept. N for free catalogue.

T. E. BISSELL CO., LTD., Elora, Ont.

These rollers will be on exhibition at Toronto, London and Ottawa Fairs.

See advertisement on page 231.

HORSE RADISH ROOTS WANTED

Must be clear of small Roots and green tops and in sound condition. Price six cents per pound, Toronto.

THE WM. DAVIES CO., Limited

521 Front Street East - Toronto, Ontario

Canada Food Board Packer's License No. 13-50

Peerless Poultry Fencing

A real fence, not netting. Strongly made and closely spaced, a complete barrier against animals of any kind. Keeps the small chicks confined. They can't get through. Does all and more than is required of a poultry fence.

The heavy, hard steel top and bottom wires with intermediate laterals will hold a carelessly backed wagon or unruly animal and immediately spring back into shape.

The wires are held together at each intersection by the Peerless Lock.

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THE BANWELL-HOXIE WIRE FENCE CO., Ltd.,
WINNIPEG, MAN.
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for distribution several helpful circulars and bulletins. Circular 88 is entitled, Common Diseases of Berries; Circular 89, Common Diseases of Garden Vegetables and Truck Crops; Circular 95, Seed and Soil Treatment for the Control of Potato Scab, and Bulletin 324, the Strawberry Weevil.

Considerable valuable experimental work has been conducted by the Horticultural Section of the Michigan Agricultural College Experimental Station, at East Lansing, Michigan. Much of this is recorded in a series of special bulletins now being distributed. Bulletin 84 deals with Strawberry Culture, 85 with Potato Diseases, 86 contains A Spray and Practice Outline for Fruit Growers, Bulletin 87 gives the results of Dusting and Spraying Experiments with Apples, while Bulletin 89 touches on Tomato Growing in Michigan.

Box Packing

WHEN packing fruit in boxes care is required to see that the boxes are well made. They should be constructed of good, clear spruce lumber, the ends $\frac{3}{8}$ inch thick, sides $\frac{3}{8}$, top $\frac{1}{4}$ inch, cleats $\frac{3}{8}$ inch thick, and $\frac{7}{8}$ inch wide. Good cleats will be a saving of both time and patience. Pine should never be used, as the wood taints the fruit.

In most cases the boxes are bought set up. Where they are to be shipped a long distance it will be a great saving in freight to buy them in the flat. It is not an expensive operation to nail them together, and they occupy much less space in the fruit house. Too many nails should not be used, and only as many as are absolutely necessary to put the box strongly together. If the sides, top and bottom are in two pieces, four nails in each end will be enough. If they are in one piece, three is all that is necessary. The tops and bottoms should be nailed with the cleats. Inch and three-quarter gummed box nails for the sides and two-inch nails for the tops and bottoms, will hold much better than ordinary nails. Before using, the cleats should be soaked for a couple of hours in water to avoid splitting.

There are several of these devices, the object of which is to press the ends of the lids down firmly in order that the nailing may be done easily and neatly.

A great many make-shifts can be used for tables. Good ones are advertised in The Canadian Horticulturist. They must be so arranged that the stand for the box is close to the fruit, so as to facilitate speed for the packing. The small portable tables made on the principle of the folding cot, with a position on each side for a box, are useful for the individual grower. In large packing houses long stationary tables built of heavier material are best. The surface of a table for two should be about three feet wide and not more than five feet long, as anything larger would not allow two packers to reach all points of it without unnecessary stretching. The table should be high enough to allow a packer to work with comfort, avoiding back bending in all cases. Three feet is about right. The covering should be of strong canvas, allowed to hang rather loosely. The edges of the table should be padded to prevent bruising of the fruit. Care should be taken to have the table cleared of fruit six or eight times a day, otherwise the fruit will be considerably bruised by continual handling.

Reports reaching us from the Ontario Department of Agriculture include the report for 1916 and 1917 of the Horticultural Experiment Station at Vineland, and of the Ontario Vegetable Growers' Association for 1917.

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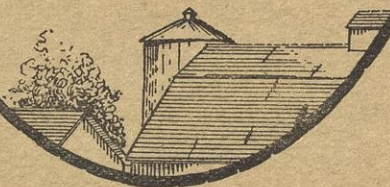
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CLASSIFIED ADVERTISEMENTS

Advertisements in this department inserted at the rate of 15 cents a line, each line averaging seven words. Part lines count as whole lines, minimum of two lines accepted. Strictly cash in advance.

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SWARTS' GOLDEN QUEENS produce golden bees of the highest qualities. Satisfaction guaranteed. Mated, \$1.00; 6 for \$5.00; Tested, \$2.00. D. L. Swarts, Rte. 2, Lancaster, Ohio.

WANTED TO BUY.—A yard of bees. Write giving particulars to Box 25, The Canadian Beekeeper, Peterboro, Ont.

ITALIAN QUEENS—Northern-bred, three-banded, highest grade, select untested, guaranteed. Queen and drone mothers are chosen from colonies noted for honey production, hardiness, prolificness, gentleness and perfect markings. Price, one, \$1; twelve, \$10; fifty, \$35. Send for circular. J. H. Haughey, Berrien Springs, Mich.

FOR SALE.—Italian Queens and Bees. Queens, \$1.00 and \$1.50 each. Pound packages, Nuclei and colonies. H. A. McCauley, Mathis, Texas, U.S.A.

WANTED.—From 50 to 100 colonies of bees. If you know of any, write, and you will be well paid. L. A. Wigle, 368 Highland Ave., Windsor, Ont.

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WANTED.—Choice white extracted honey. State quality, quantity, size package. Spot cash price F.O.B. your R.R. Station. E. J. Berry, Calgary, Alta.

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ALL KINDS OF FARMS—Fruit farms a specialty. Write, stating requirements. W. B. Calder, Grimsby.

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FOR SALE—12 or more new Langstroth hives, 8 frames, 40 new supers for section 4¼ x 4¼ x 1½ comb honey with new slats and end blocks new, all nailed and painted; 6 slightly used hives, 24 used hives but in good shape, 3 or 4 dozen used supers, 500 new basswood No. 1 sections, of above size and several pounds of foundation comb for sections. What offer? F.o.b., Cobourg. Please quote price for each piece and number desired. A. J. Lacey, Cambridge P. O., Ont.

FOR SALE

Burley Tobacco Stems

PRICES ON APPLICATION

The McAlpin Tobacco Co., Limited
TORONTO, ONT.

Effect of High Prices for Early Fruit

B. C. Abbot, B.C., Coast Markets Commissioner, Vancouver, B.C.

A CLOSE observation of the demand for farm products, more especially fruits for canning, brings home to one the great possibility there is for these fruits to be held too high in price at the beginning of the car-load movements. No doubt the conditions of the salaried man have a great deal to do with the demand for canning fruits in the city. From investigations made we find that it is possible for us to divide our city consumers into three classes, viz.: the wealthy, the day-wage worker, and the salaried worker. The first class will buy fruit for canning purposes every year, no matter at what price. His trade is, however, small when considered in bulk, and makes little difference on our total supply. The second class is drawing big pay, and, in general, is either a single man or one who, although married with a family, does not do much canning of fruit owing to the fact that he lives in an apartment house, or is likely to be on the move on a moment's notice. Consequently we have to leave the greater part of his consumption to the table use of fresh fruits. The third, or more or less stationary class, who work on a monthly or yearly salary, formerly put up enough fruit for their season's requirements. This demand to a very great extent has been eliminated, due to the fact that this class is on the whole suffering undue agony from financial embarrassment. Foodstuffs and all kinds of household essentials have continued to soar in price to such an extent that the purchasing power of an ordinary man's salary has been reduced that he can now support only a family of three on the same amount he used to support a family of seven.

Many producers have spoken to the writer about the high wages paid in the cities, and stating that they should receive double for their produce. We wish to point out that the high wages are paid to the day laborer, and not to the men and women who are working as clerks and accountants, or, in other words, the salaried class. As to the double price for his produce, we believe the producer is entitled to all of that, as his farm essentials have gone up in price from 35 to 250 per cent.

I have mentioned the foregoing in order to point out to the producer that, while he is justly entitled to a profitable price, the class of consumers who buy the bulk stuff are cut off from him through actual shortage of salary. How, then, is the producer going to save himself on perishables? The

solution is, place your perishables on the market at a reasonable profit to yourself and move your entire crop without waste. This will put more net returns in your pocket than holding your first cars so high that no ordinary consumer can buy it, thus creating a heavy loss in waste, and finally selling the balance of your crop at "any old price." Fair profits and no waste is what these times demand, so do your bit by pushing along the good work of rural organization, so we may get proper distribution of our foodstuffs on the markets, and thus benefit the producer, tradesman and consumer.

PERRY'S SEEDS

Alpine and perennials, unique collection; many new varieties unobtainable from any other source.

Hardy and adapted for Canadian climate.

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We make the "Standard" Pot, the best Pot in the world—uniform, best of clay, well burned, in every respect superior to all others.

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OUR facilities enable us to realize top prices at all times for your fruit, vegetables or general produce. Aside from our large connection on the Toronto Market, we have established branch warehouses with competent men in charge at Sudbury, North Bay, Cobalt, Cochrane and Porcupine. In time of congestion on the Toronto market we have a ready outlet through these branches. We never have to sacrifice your interests.

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References: The Canadian Bank of Commerce (Market Branch) and Commercial Agencies.

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Table**

The "Daisy" Apple Sorting Table is one of the most useful articles in our outfits for fruit growers. It folds into small compass and can be placed anywhere in the orchard. It is light, but is strongly built to withstand rough usage. The table frame is of oak and all metal parts are of first class malleable. The cover is of No. 10 canvas.

"Daisy" Apple Press

The "Daisy" Apple Press is one of the best-known articles of this line, and is indispensable to every packer. In fact, it is used by the leading apple packers in Canada, United States and England.

Fruit growers' supplies carried—Ladders, Baskets, Felt Pads, Racks, etc. Write for Prices. Special Quotations to Associations.



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Makes poor land fertile and keeps fertile land most productive.

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Say you saw this ad. In The Canadian Horticulturist.

It is desirable that Fruit and Vegetable Growers should note several important amendments in the Inspection and Sale Act.

With a view to being of service to the Growers of Ontario, the Ontario Department of Agriculture wishes, in particular, to point out the following changes in the Act :

POTATOES—Now for the first time must be graded before sale. This is now the law.

The said Inspection and Sale Act is amended by inserting the following section immediately after section three hundred and thirty-seven:

337A. (1) No person shall sell or offer for sale any potatoes represented to be of,—

- (a) Number 1 quality unless such potatoes consist of specimens which are sound, of similar varietal characteristics, which are practically free from dirt, or other foreign matter, frost injury, sunburn, second growth, cuts, scab, blight, dry rot and damage caused by disease, insects or mechanical means. The minimum diameter of potatoes of the round varieties shall be one and seven-eighths inches, and of potatoes of the long varieties one and three-fourths inches. In order to allow for variations incident to commercial grading and handling, five per centum by weight of any lot may be under the prescribed size and, in addition, three per centum by weight of any such lot may be below the remaining requirements of this grade.
- (b) Number 2 quality unless such potatoes consist of specimens which are sound and practically free from dirt or other foreign matter, frost injury, sunburn, second growth, cuts, scabs, blight, dry rot and damage caused by disease, insects, or mechanical means. The minimum diameter of potatoes of the round varieties shall be one and seven-eighths inches, and of potatoes of the long varieties one and three-fourths inches. In order to allow for variations incident to commercial grading and handling, five

per centum by weight of any lot may be under the prescribed size and, in addition three per centum by weight of any such lot may be below remaining requirements of this grade.

(2) This section shall not apply to seed potatoes.

An amendment in regard to the mark "domestic"

No person shall sell, or offer, expose or have in his possession for sale, any fruit packed in a closed package, upon which package is marked "Domestic" unless such fruit includes no culls and consists of fruit of not less than medium size for the variety, sound, and not less than eighty per cent free from wormholes (but may be slightly affected with scab and other minor defects), and properly packed.

An amendment in regard to "immature fruit"

Every person who, by himself or through the agency of another person, packs immature peaches, plums, pears, prunes or grapes, intended for sale, shall cause such package to be marked, in a plain and indelible manner, in letters not less than three-quarters of an inch in length, with the words "Immature Fruit," before it is taken from the premises where it is packed.

It is expected that the Federal Government will have these and the various amendments and alterations published in pamphlet form, but in the meanwhile full information will be gladly sent on any point in connection with the packing, grading and marketing of fruits and vegetables.

ONTARIO DEPARTMENT OF AGRICULTURE

Parliament Buildings, Toronto



HON. GEO. S. HENRY,
Minister of Agriculture.

DR. GEO. C. CREELMAN,
Commissioner of Agriculture.