

BRITISH COLUMBIA

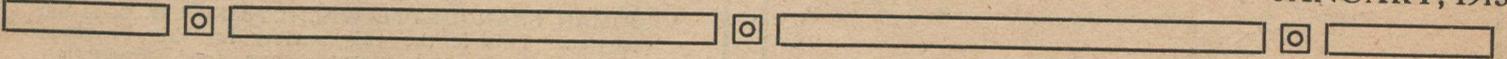
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FRUIT AND FARM MAGAZINE

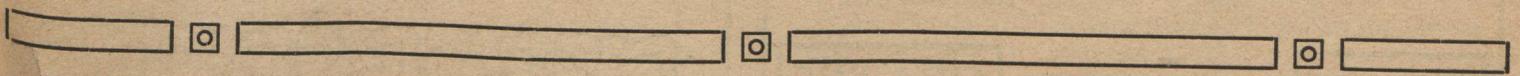
Vol. VI, No. 4

JANUARY, 1915



White Leghorns on a Duncan Poultry Farm

—Courtesy Duncan Board of Trade



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BRITISH COLUMBIA Fruit and Farm Magazine

A Monthly Journal Devoted to the Interests of the Man on the Land.

Vol. VI.—No. 4.

Vancouver, British Columbia

[\$1.50 per year
in Advance]

BRITISH COLUMBIA APPLE WEEKS

By R. M. WINSLOW, Provincial Horticulturalist and Secretary B. C. Fruitgrowers' Association

During the first half of November the Horticultural Branch of the B. C. Department of Agriculture successfully inaugurated special apple-selling campaigns for the purpose of promoting the consumption of British Columbia apples. These special campaigns were advertised as "British Columbia Apple Weeks," and were held in Calgary, Vancouver and Victoria. The British Columbia Fruit Growers' Association assisted by paying part of the cost in each case.

Earlier in the year the above association had distributed 100,000 booklets on British Columbia Fruit, which brought a very considerable response, but were not considered sufficiently specific to meet the particular difficulties of the apple market as it stood in the month of October. Our apple crop was about 20 per cent. greater than that of 1913, which had previously held the record. The Prairie markets were very largely on a consignment basis, with prices ruling low, and American apples being offered at very low prices in the coast cities. The Federal Advertising Campaign had directed public attention to apples with remarkable success, but the advantage of the campaign was largely accruing to barrelled apples from Eastern Canada. It became obvious, too, in late October, that our apples would not keep as well as usual, and must go into immediate consumption.

Under the circumstances it was quite a problem to focus the demand on the apples of British Columbia and to secure the movement of our crop at reasonably firm prices.

As against the imported fruit there was the opportunity to appeal for support for the Canadian product, and in British Columbia support for the product of our own Province. This appeal was widely made and heartily responded to. The B. C. Apple Weeks have left a deep impression on the consuming public and on the trade, even outside the radius of the cities which participated.

The essential feature of the "Apple Week" idea, as we carried it out, is concentrated publicity of such volume

as to greatly stimulate apple sales and consumption, not only for the particular week in question, but for more permanent results as well.

The Okanagan United Growers, through their manager, Mr. R. Robertson, co-operated especially in this work, though all B. C. fruit received a benefit, about 50 per cent. of the apples sold during the Apple Weeks coming from other sources.

In Calgary the Markets Commissioner of the Horticultural Branch, Mr. J. Forsyth Smith, was in charge. The successful organization of the campaign, both in general and in detail, is to be credited to his efforts. The wholesalers and retailers readily co-operated in the plan, and especially contributed to extensive newspaper advertising to which the Association gave 25 per cent. Apple lithographs were used in the street car advertising to excellent effect. The newspapers contributed liberally of their news and editorial space.

Some Calgary wholesalers estimated their sales at double, others treble normal consumption, and sales have been on a high level ever since. Other cities in the Prairies have requested similar campaigns next year.

The Vancouver Apple Week, November 2nd to 7th, had not only the support of the Department, but was largely supported by the Vancouver Industrial Bureau, all of the wholesalers, the great majority of the retailers, and Vancouver City Market. Newspaper advertising, news items and editorials were here a considerable feature, but even more than in Calgary the retailers' Window-dressing Competition put the B. C. apples themselves in all their beauty before the eyes of all consumers. The Apple Show staged in the commodious Exhibition Hall of the Vancouver Industrial Bureau, attracted tens of thousands of visitors. In the Vancouver City Market 4,500 boxes of B. C. apples were staged and sold to customers who came to see them. The retailers, thanks to a special effort on the part of the wholesalers, were more generally interested than at Calgary or Victoria.

Though Vancouver had been using American fruit in the proportion of 2 to 1 of British Columbia apples, the Apple Week campaign very largely reversed this. During Apple Week itself B. C. apples were sold 10 to 1 of American.

In Victoria the campaign was limited to a three-day period, but proved equally successful and permanent in its results. Newspaper advertising was the largest feature, but special features on the programme of a series of patriotic concerts proved most valuable publicity. A retailers' window-dressing competition aroused great interest, and an apple parade was an unusual but striking feature. During the week sales of B. C. apples were as 4 to 1 of American, completely reversing the previous situation.

Apple Week advertising has certainly brought home to the average consumer the genuine superiority of the British Columbia apple, and, quite aside from any question of patriotic motives, there is a much more pronounced desire for B. C. fruit than has ever been previously experienced. The hearty co-operation of wholesalers, retailers and public bodies to stimulate the sale and consumption of B. C. apples has been a surprise and a most gratifying one to the growers. Such Apple Weeks can be carried out in future years with much less effort for organization and at much less expense (though the expense was comparatively light), and certainly with even greater results.

The editor of the Calgary "Herald" voiced the opinion of the general public of all three cities when he wrote the following:—"B. C. Apple Week in Calgary was a wonderful success. Never before in the history of this city have the people bought apples in such generous quantity, and never before have they been given such splendid opportunity to make their purchases. In the results of the exhibition there are at least two lessons not likely soon to be forgotten. So far as the people are concerned, thousands have been converted to the apple-eating habit—a habit they will not willingly abandon.

Greenhouse and Garden Insects

By R. C. TREHERNE, Dominion Entomologist

As for the apple growers, they have learned a wonderful lesson in the value of judicious advertising. The Apple Week campaign was wisely planned. Every agency necessary for its success was made use of, and there was no skimping at any point. Calgary today eats B. C. apples, and eats them in immense quantities. So long as the growers continue to ship in the fruit and the price is right, Calgary will be a B. C. apple centre."

The Apple Week idea has come to stay. The plan secures greatly increased consumption of fruit; standard prices; moderate margins for retailer and jobber; every cent for the grower that the market conditions will stand; and, above all, better health to all consumers and the satisfaction that comes from eating British Columbia apples!

THE RENOVATION OF NEGLECTED ORCHARDS.

Bulletin No. 79 of the Experimental Farm is entitled "Renovation of the Neglected Orchard." It has been prepared by M. B. Davis, B. S. A., Assistant to the Dominion Horticulturist. Special attention is given to the following practices: Heading back old trees; thinning, scraping, cleaning and tree surgery; cultivation and cover crops; systems of cultivation; fertilization; spraying and thinning fruit. The bulletin is generously illustrated. It has been prepared with a view of showing how, by a reasonable amount of labor and care, profitless old orchards, which are a menace to the local orchard industry, may be made a remunerative part of the farm and a credit to the neighborhood. Copies of this bulletin are available at the Publications Branch of the Department of Agriculture, Ottawa.

Let the wealthy and great
Seek splendor and state;
I envy them not, I declare it.
I grow my own lamb,
My chickens and ham;
I shear my own wool,
And I wear it.
I have birds, I have bowers,
I have fruits, I have flowers;
The lark is my morning alarmer.
So my jolly boys, now
Sing "God speed the plow";
Long life and success to the farmer!

The annual meeting of the B. C. Entomological Society will be held on January 16th, in the auditorium of the Aberdeen School, Vancouver. A very interesting programme has been arranged.

The Chrysanthemum Leaf-miner.

This insect is very common in and around the city of Vancouver. It is principally destructive as a greenhouse insect, attacking white daisies and chrysanthemums. It is believed also to breed in the leaves of wild plants in the open.

The adult is a very small black fly, somewhat sluggish in its movements. It lays its eggs just beneath the epidermal layer of the leaf and the larvae mine and feed between the two surfaces. Pupae are formed in the leaf and can be observed to have punctured the epidermis of the leaf to render the escape of the fly somewhat easier, and possibly also for breathing purposes. From the pupae the fly eventually emerges, to again begin the cycle of life. The generations appear to be very rapid, especially under the heated conditions of greenhouses; consequently a continuous watch must be kept for the fly and the larvae.

It is believed that the nicotine extracts would prove beneficial as a control for the larvae and pupae within the leaves. Hand-picking of the affected leaves is of value, but is troublesome. Both measures followed closely by sulphur or hydro-cyanic-acid gas fumigation to prevent the flies from depositing eggs would probably reduce the numbers of the insect effectively.

The Tarnished Plant-bug.

This Capsid has been reported and observed destructive to dahlias, carnations, and chrysanthemums in British Columbia greenhouses. From its proven omnivorous habits it probably attacks many more plants than observed. The adult is about $\frac{1}{4}$ inch long, somewhat shield-shaped in outline, brown in color, marked with black, red, and yellow. The displacement of the color and markings is variable.

Unlike the majority of insects mentioned throughout this paper, which pass from an egg to the larva, to the pupa, and thus to the adult, this Capsid passes from the egg to the nymph, which grows and moults several times before attaining the size and appearance of the full-grown adult. Consequently we may find stages of the nymphal period all at work on our plants conjointly with the adults.

Messrs. F. H. Chittenden and H. O. Marsh, in the Journal of Economic Entomology, Vol. 3, 1910, claim that the eggs of this species are laid on a variety of plants, among them being

the kale, turnip, and mullein, on the upper side of leaves, in petioles of leaves and in the stems of plants. From these eggs the nymphs hatch and commence to suck the juices of the host-plants. This insect, while being of economic importance to the farmer, has become a nuisance to the greenhouse gardener. It will attack the young developing buds and flowers of the plant, sucking the juices from one side, so that as the bloom opens up it will be found to have developed on one side only, or malformations in a variety of ways takes place, which hinders the market value of the cut bloom.

As a control in the greenhouse, kerosene emulsion or one of the nicotine extracts sprayed in weak dilution, preferably as early in the morning as possible, owing to the fact that the bugs are less active at this time of day, will retain the insects within reasonable bounds. For further efficiency, spraying had best be carried on more or less once a week.

The Greenhouse Thrip.

It is popularly supposed among florists in Vancouver that this Thrip is a more economic pest than the before-mentioned tarnished plant-bug to bloom in the greenhouse. It is claimed that injury to chrysanthemums is different to the injury caused by the "bug"; that the bud is attacked at an earlier stage by the Thrip, and that the entire bud is destroyed and "thrown blind." We are not in a position to state definitely the actual state of affairs without further study. The main injury by the Thrip is caused to the leaves, which it readily attacks, with attendant loss to the plant. The injury to the bloom is questionable as yet, there being a certain confusion in the respective attacks of the "bug" and the Thrip.

The same control measures as applied for the "bug" will apply to the Thrip.

The Bulb-mite.

This mite is considered from many shades of opinion. Some of the most prominent entomologists of the United States claim great damage due to the mite, and claim no infected bulbs should reach the planter; others acknowledge the undoubted and primary injury to bulbs by the mites, but their universality and habits prohibit satisfactory quarantine measures, inspection, or control; while others, again, consider the mites as secondary in importance and injury. This mite is present in British Columbia today,

but we can offer no data as to the extent of its actual. Specimens of this mite arrive every year from Europe and Japan, and it is doubtful whether any consignment of bulbs can be considered free. The mites so commonly seen in onions and decaying roots, cabbages, or vegetable matter are probably referable to the same species. There is no doubt that these mites are capable of being the primary injury to sound bulbs, but from their usual association with injuries caused by rots and other insects in roots and bulbs, it is probable that more often their presence is secondary.

The economic status of this animal is only recent in study; consequently no control measure can be considered.

Narcissus-fly.

Mr. Priestly Norman, of Victoria, in the Proceedings of this Society for 1911, has published an extensive paper on the habits and prevalence of this insect in this Province as we have for reference. Dr. C. Gordon Hewitt, Dominion Entomologist, in his Annual Report for 1911, refers to this insect under British Columbia conditions, as follows: "In British Columbia it is now a serious pest of bulbs, and Mr. A. E. Wallace reported it as attacking narcissus and daffodil bulbs near Victoria, B. C., about 50,000 bulbs having been destroyed in the year."

We gather, therefore, that this insect is a most serious one on Vancouver Island. Mr. Norman believes it was imported into British Columbia about 1904 on bulbs and has been allowed to increase. On the Mainland, in and around Vancouver, this insect is most decidedly gaining in importance and prevalence. From reports from owners of gardens in the city of Vancouver and from personal observations, it would appear there has been a decided gain in the numbers and injuriousness of this insect within the city. No special endeavor has been put forward up to the present to instruct people in regard to this insect, and, as mention of it has been spontaneous, we are safe in assuming that the insect is gaining ground and liable to become a serious pest.

Mr. Norman, in referring to this insect, desires it to be known that he has only judged this insect somewhat impersonally, and that the following life-history notes are merely opinions gathered from the practical association with bulb-growing.

The adult is a fly resembling a horse-fly, and may be seen from the end of March till September. It is more commonly observed in May. The point of egg-deposition is in the crown at the surface of the ground. The "grub" or larva then finds its way to the heart

and here feeds, grows, and sets up a rot in the bulb. The larva will then remain in the bulb until the following February, when it vacates the bulb and changes to the pupa state about $\frac{1}{2}$ inch below the surface of the ground, and from there hatches to the fly. "The true narcissus type is most susceptible to attack, then come the intermediate season daffodils. *Recurvus* and *Bari* conspicuus are most subject to attack, while 'Henry Irving,' 'Golden Spur,' and 'Princeps' are almost free as are the late daffodils."

Quoting the report of Dr. C. Gordon Hewitt: "The method of eradication which has been found most simple and efficient in Europe is the annual lifting of the bulbs and the destruction of all those which are found to be attacked by the maggots as can readily be seen."

Consequently, in the spring and fall, when bulbs are planted and dug, care should be taken in selection, and bulbs found infested should be destroyed. The grub can be detected by pressure of the bulb, indicating a softness within, or by an examination of the root-crown, where infested bulbs will show a point of entrance. The grub may vary in length, but it attains a growth of $\frac{3}{4}$ to 1 inch in length and is broad in proportion. Bulbs should not be left in the ground throughout the summer.

Rose-leaf Hopper.

Frequently rose-bushes and other garden plants will exhibit their leaves finely speckled with minute whitish or yellow dots. Later the dots form areas of discoloration which are white or yellow at first, but later may become brown. On the under-surface of the leaf minute yellowish green insects which hop freely when disturbed will be found. They are the cause of the mischief. It is believed that the winter is passed in the egg stage under the bark of the new wood. In the spring these eggs hatch to form small active nymphs which are at first wingless, but gradually grow by successive moults to the fully winged hopping individual. These adults will have developed by June.

The best remedies are the soap emulsions, kerosene emulsion being particularly satisfactory applied in the form of a spray during May. Particular attention should be paid to forcing the spray to the under-sides of the leaves.

The Oblique Banded Leaf-roller.

This insect is common in Vancouver and is the cause of much disappointment to the amateur rose-gardener. The larva is generally light green in color, with a dark-brown or black head, and is found in a curled portion of a leaf. It readily devours the leaf, clustering several leaves together, making

the bush unsightly. When disturbed, the larvae become very active, wriggle away, and drop from their nest by means of a thread.

The most annoying injury caused is to the young blossom-bud in the spring. When the rose finally blooms it will be found to be riddled and perforated by a number of feeding areas, totally spoiling the appearance. Frequently the entire bud will be destroyed. When the larva has become full grown the pupa is formed, being light to dark brown in color and about $\frac{3}{4}$ inch long. Later from these pupae the moths appear. In Vancouver they fly the first days of July, being attracted in great numbers to electric lights. In general color they are brown. It is believed that a second brood of larvae appear in August and September.

As a control, arsenate of lead at the rate of 1 oz. to a gallon of water at once commends itself as an efficient remedy for the larvae, applied in the form of a spray at the early part of the spring. Trap-lights set in pans of water will also catch many moths in July.

MATSQUI AGRICULTURAL ASSOCIATION.

The annual meeting of the Matsqui Agricultural Association was held at Gifford on December 8 with a good attendance. The officers elected for the coming year are:

President, J. T. Aish; vice-president, P. Conroy; 2nd vice-president, W. J. Marsh; 3rd vice-president, A. L. Bates; secretary, Alex. Yuill; treasurer, John Pace; directors, Ernest Phillips, J. Conroy, John Olsen, Alex. Yuill, E. J. Weslin, rank Coghlan. The other directors are same as last year with the exception of Messrs. Martin and Hill-Tout, who were not elected, and are as follows: Richard Owen, Wm. Bates, J. W. Taylor, W. Merryfield, Ed. Croy, John Pace, Wm. Elliott, C. T. Purver, Philip Jackman, T. H. Lehman, Leslie DeLair, W. J. Marsh, Thos. Miller, D. Sjogren, Nels Fore, Ole Sorenson, Chas. Crawford, Walter Towlan, P. Conroy, J. T. Aish, J. B. Miller, R. Beaton, C. L. Clark, H. F. Page.

The annual report showed a balance of \$111.65 to the credit of the association in the bank.

Mr. A. L. Bates, the retiring secretary, was voted the sum of \$75 for his services during the past year.

Circular letters from Mr. Scott, Deputy Minister of Agriculture, have been sent to all secretaries of Farmers' Institutes in British Columbia, calling attention to Circular Bulletin No. 10, "The Care of Milk and Cream," which has been prepared by the Live Stock Branch of the Department.

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of the Man on the Land

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CO-OPERATION IN THE OKANAGAN.

We make no apology for drawing frequent attention to the work of the Okanagan United Growers, Limited, because it represents the most serious attempt yet made in this province to co-ordinate the marketing efforts of the farming class. Reference to the meeting of the Association held at Vernon will, we think, be a revelation to most people, because it indicates that, in spite of somewhat disheartening conditions, the Association is each year expanding at a remarkable rate. In all nearly 1,100 car loads of fruit and produce were shipped out of the valley this year by the agency, while organizations which have not yet associated themselves with the Okanagan Fruit Growers were also responsible for heavy shipments. Nor does this represent the total activities of the Society. The purchase of supplies of different kinds for its members in car loads has resulted in a great saving, the extent of which can scarcely be estimated.

This year the Agency has been handicapped by price-cutting competition on the Prairies, which was the outgrowth of the abundant crop and a shrinking market. The result was that a large amount of shipments had to go forward on commission, and this feature of the committee's work came in for some criticism at the annual meeting. It was, however, pointed out by the manager that they had no other alternative with which to meet an extraordinary situation, and he urged upon the members the desirability of eliminating price-cutting by local competition.

We congratulate the farmers of the Okanagan Valley, and Mr. Robertson, on the season's work, which, in spite

of abnormal conditions, shows their industry to be one of the largest in the whole province.

POULTRY IN 1915.

All authorities seem agreed that the year 1915 will probably be one of the best years that the poultry men and poultry supply manufacturers have ever enjoyed. We have taken occasion again and again to urge on our readers the advisability of enlarging their flocks, and we again suggest that the poultry breeder who does not allow himself to be turned in any way from his purpose of keeping up his stock of birds for next year is pursuing the path of wisdom. The progress of the war from month to month serves to emphasize the foresight of those who urge the growing of foodstuffs, produce, and all staple articles. The prices of all these are bound to increase under present conditions, and the same is true of poultry and other livestock. We hope that this year will see the hatching of an enormous number of birds in British Columbia.

AGRICULTURE IN THE SCHOOLS.

In our last issue we gave a short sketch of Prof. L. S. Klinck, the Dean of the College of Agriculture, which is to be constructed in association with the British Columbia University. This provision for advanced work in agriculture has been supplemented by the selection of Mr. J. W. Gibson, M.A., to superintend the work of agricultural education in the public schools of the Province.

Important as are the functions of the head of the agricultural section of the university, the task before Mr. Gibson possesses even greater potentiality in influencing the thoughts and taste of the younger generation throughout the country. It falls at a time when by stress of circumstances, and for other causes, the thoughts and ambitions of many are turned countryward. The new Superintendent will therefore find a much more receptive constituency with which to deal than if he had come to this Province two or three years ago, when the aspirations of the men on the land were toward quick fortunes by the real estate route.

The crocus had slept in his little round house,
So soundly the whole winter through;
There came a tap-tapping—"Twas spring at the
door;
"Up, up! we are waiting for you."

The crocus peeped out from his little brown
house,
And nodded his gay little head;
"Good morning, Miss Snowdrop! And how do
you do
This fine chilly morning?" he said.

THE FAVORITE APPLE IN BRITISH COLUMBIA.

According to some interesting data given in Bulletin No. 59 of the Provincial Department of Agriculture, the Jonathan apple is now the favorite with the growers of this Province, in whose favor the Wagener, Wealthy and McIntosh Red also stand high. The bulletin gives by district the total number of apple trees of each of the leading varieties, and also the number of each under five years old. For the whole Province, this is the showing in 1913:

	Total Five years Number. & under.	
Gravenstein	22,958	14,258
King	41,740	16,506
Jonathan	391,541	314,795
Wagener	262,785	217,002
Grimes' Golden	41,768	39,377
Northern Spy	85,325	57,027
Spitzenburg	64,762	49,785
Newton Pippin	71,339	57,999
Delicious	38,832	34,951
Winesap	47,992	45,034
Ontario	10,396	6,767
Cox's Orange	34,937	15,997
Wealthy	170,122	99,722
McIntosh Red	191,291	148,618
Rome Beauty	32,545	27,158
Winter Banana	10,784	9,181
Ben Davis	12,215	4,154
Baldwin	10,416	3,226

REPORT OF ROYAL COMMISSION ON AGRICULTURE.

The full report of the Royal Commission on Agriculture, a volume of 398 pages, has just been issued by the Department of Agriculture, Victoria.

Many matters of great interest to agriculturists are dealt with in this report, such as Land Improvement, Farming in British Columbia, Public Roads, Rural Telephones, Marketing, Co-operation in Agriculture, Agricultural Credit, Agricultural Education, and Statistics as to Climatic Conditions, Land Settlement and Irrigation.

The Layritz Nurseries, Victoria, have just issued their new catalogue for 1915, which is a most comprehensive and attractive list. They call particular attention to the number of new and rare roses of recent introduction which are stocked. Freight will be paid on all orders above \$10.00 when cash is remitted prior to shipment. Write for list.

What is an Internal Bath?

By R. W. BEAL

Much has been said and volumes have been written describing at length the many kinds of baths civilized man has indulged in from time to time. Every possible resource of the human mind has been brought into play to fashion new methods of bathing, but, strange as it may seem, the most important, as well as the most beneficial of all baths, the "Internal Bath," has been given little thought. The reason for this is probably due to the fact that few people seem to realize the tremendous part that internal bathing plays in the acquiring and maintaining of health.

If you were to ask a dozen people to define an internal bath, you would have as many different definitions, and the probability is that not one of them would be correct. To avoid any misconception as to what constitutes an internal bath, let it be said that a hot water enema is no more an internal bath than a bill of fare is a dinner.

If it were possible and agreeable to take the great mass of thinking people to witness an average post-mortem, the sights they would see and the things they would learn would prove of such lasting benefit and impress them so profoundly that further argument in favor of internal bathing would be unnecessary to convince them. Unfortunately, however, it is not possible to do this, profitable as such an experience would doubtless prove to be. There is, then, only one other way to get this information into their hands, and that is by acquainting them with such knowledge as will enable them to appreciate the value of this long-sought-for health-producing necessity.

Few people realize what a very little thing is necessary sometimes to improve their physical condition. Also, they have almost no conception of how a little carelessness, indifference or neglect can be the fundamental cause of the most virulent disease. For instance, that universal disorder from which almost all humanity is suffering, known as "constipation," "auto-intoxication," "auto-infection," and a multi-

tude of other terms, is not only curable, but preventable, through the consistent practice of internal bathing.

How many people realize that normal functioning of the bowels and a clean intestinal tract make it impossible to become sick? "Man of today is only fifty per cent. efficient." Reduced to simple English, this means that most men are trying to do a man's portion of work on half a man's power. This applies equally to women.

That it is impossible to continue to do this indefinitely must be apparent to all. Nature never intended the delicate human organism to be operated on a hundred per cent. overload. A machine could not stand this and not break down, and the body certainly cannot do more than a machine. There is certainly too much unnecessary and avoidable sickness in the world.

How many people can you name, including yourself, who are physically vigorous, healthy and strong. The number is appallingly small.

It is not a complex matter to keep in condition, but it takes a little time, and in these strenuous days people have time to do everything else necessary for the attainment of happiness but the most essential thing of all, that of giving their bodies their proper care.

Would you believe that five to ten minutes of time devoted to systematic internal bathing can make you healthy and maintain your physical efficiency indefinitely? Granting that such a simple procedure as this will do what is claimed for it, is it not worth while to learn more about that which will accomplish this end? Internal Bathing will do this, and it will do it for people of all ages and in all conditions of health and disease.

People don't seem to realize, strange to say, how important it is to keep the body free from accumulated body-waste (poisons). Their doing so would prevent the absorption into the blood of the poisonous excretions of the body, and health would be the inevitable result.

If you would keep your blood pure, your heart normal, your eyes clear, your complexion clean, your mind keen, your blood pressure normal, your nerves relaxed, and be able to enjoy the vigor of youth in your declining years, practise internal bathing, and begin today.

Now that your attention has been called to the importance of internal bathing, it may be that a number of questions will suggest themselves to your mind. You will probably want to know WHAT an Internal Bath is, WHY people should take them, and the WAY to take them. These and countless other questions are all answered in a booklet entitled "THE WHAT, THE WHY and THE WAY OF INTERNAL BATHING," written by Doctor Chas. A. Tyrrell, the inventor of the "J. B. L. Cascade," whose lifelong study and research along this line make him the pre-eminent authority on this subject. Not only has internal bathing saved and prolonged Dr. Tyrrell's own life, but the lives of multitudes of individuals have been equally spared and prolonged. No other book has ever been written containing such a vast amount of practical information to the business man, the worker and the housewife. All that is necessary to secure this book is to write to Dr. Tyrrell at Room 895, 280 College Street, Toronto, and mention having read this article in the **Vancouver Fruit and Farm Magazine**, and same will be immediately mailed to you free of all cost or obligation.

Perhaps you realize now, more than ever, the truth of these statements, and if the reading of this article will result in a proper appreciation on your part of the value of internal bathing, it will have served its purpose. What you will want to do now is to avail yourself of the opportunity of learning more about the subject, and your writing for this book will give you that information. Do not put off doing this, but **send for the book now**, while the matter is fresh in your mind.

"Procrastination is the thief of time." A thief is one who steals something. Don't allow procrastination to cheat you out of your opportunity to get this valuable information, which is free for the asking. If you would be natural, be healthy. It is unnatural to be sick. Why be unnatural when it is such a simple thing to be well?

Gardening for the Home

By H. M. EDDIE, F.R.H.S.

By the time this appears before my readers the old year will have fled and a new one been entered upon, and under circumstances which make the usual greeting of "A Happy New Year" convey a deeper meaning than usual. Our prosperity and happiness is so intimately bound up with the welfare of our Empire that they may well be said to be synonymous. May the momentous undertaking which had its origin in the old year have an early consummation in the new, and in the fullest sense of the phrase I wish my readers all a very happy and prosperous new year.

The month of January is usually a quiet one in the garden, and the work to be done will depend largely upon the state of the weather.

In frosty weather, when the ground is too hard for working, and so long as the frost is not too severe, it is a good time to perform what pruning there is to be done.

Boulevard and shade trees, especially the native maple, occasionally outgrow their situations, and pruning has to be resorted to to keep them within bounds. Sometimes it may be necessary to pollard them completely, but the heads of most trees can be reduced considerably and their natural contour preserved without resorting to drastic measures.

Before going further I had better say that not every tree will bear pollarding. There are, in fact, only two kinds of trees which it is safe to practice this form of pruning on, and those are the native maple and the poplars; it would be ruinous to the grace of the birch, probably fatal to the mountain ash, and a locust treated thus would show its displeasure by sending up crowds of suckers in unexpected and inconvenient places.

To reduce the head of a large tree and still retain its natural contour, commence on one of its large limbs and cut it back to a point where a smaller branch springs from, one that is the most favorably placed for your purpose; go over the whole tree first in this way, being very careful not to cut too hard back in places, thus making the tree lop-sided; when finished with this preliminary, and if the head is still too large, go over the leaders which

you retained a second time, and again cut them back to another convenient branchlet, and so on round and round the tree until it has been reduced to the desired size. It is well to step back from the tree a little distance occasionally when the work is going on and view it critically from every side to see that a proper balance is kept. Surplus, crossing and otherwise misplaced branches may be entirely removed so long as they do not seriously spoil the tree if removed. A misplaced branch can often be corrected by cutting back to one of its laterals pointing in the right direction.

Try to avoid cutting back to a snag. Snags look bad, and on some kinds of trees they will die back to the next branch anyway, and on others adventitious buds will form behind the cut, which will produce a mass of young shoots like bristles on a broom, and give the tree a most unsightly appearance; besides, the wound will heal much quicker if made close to a growing branch. Where large wounds are made by removing large branches the surfaces had better be given a coat of paint, green or black for preference, to prevent decay until healed over. This is a good time to prune the various fruit trees. Cut back one year apple trees to the height it is desired to head them; two-year-olds which usually make from three to five branches may, if strong and well placed, have them all retained and shortened back to about two-thirds, being careful to cut to buds pointing in the direction the future branches are desired to take—i.e., away from the centre of the tree. If it is found that a two-year tree has only made two branches, it is best to remove one of them entirely and give it a chance to form a better head next year, as crotched trees are bad. Three-year trees and older must have the crowding and crossing branches removed, the small growths on the main branches, commonly called "breastwood," cut back to two or three buds, and the leaders of the main branches cut back to from two-thirds to three-quarters their length, bearing in mind which buds to cut out. The proper pruning of apple, and, in fact, all fruit trees is determined by the tree itself, and can only

be learned by experience; trees making little wood require harder pruning than those making much growth, the ideal being to shape the tree properly and produce the maximum of fruit buds with sufficient growth of wood to carry on the extension of the tree.

Pear trees require much the same treatment as the apple, and as most varieties are inclined to a pyramidal habit of growth, everything ought to be done to keep the centres open and to encourage a lateral growth.

Cherries require the same treatment as apples up to three or four years, after which time very little pruning will be required, merely removing crossing and crowding branches. The early treatment of the plum is the same as for the apple, but after that it is more like the cherry; but as it is liable to make more wood than the cherry, a little more pruning is required, and when thinning out the branches they ought to be cut back to the old wood, otherwise more wood than ever will be produced.

The peach requires similar treatment to the above in its early youth, but differs considerably afterwards, as the fruit is borne almost entirely on the young wood; this, therefore, has to be encouraged, but not to the extent of overcrowding; old branches must be removed when worn out and young ones taken to fill their place, the idea being to keep the tree well provided with young wood from top to bottom.

Currants and gooseberries may well be pruned now, the treatment of the black being very similar to that of the peach. The fruit is all borne on the young wood, therefore as much of it as possible ought to be retained consistent with the free admission of light and air to the bush; the old wood of black currant freely produces young wood, so that there is usually no difficulty in keeping up the supply.

Red and white currants fruit on spurs so that in this case the young wood is cut hard back to two or three buds to encourage the formation of spurs, with just enough left at the ends of the branches to carry on extension.

Gooseberries require much the same treatment as the last mentioned, and in no other fruit is the fact of overcrowding more forcibly demonstrated; unless the branches are wide enough apart to allow the hands to gather the fruit without scratching, they are not

(Concluded on Page 501)

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FILBERTS IN BRITISH COLUMBIA.

By Professor H. E. Van Deman.

There is one profitable crop that may be grown very successfully in British Columbia and other north-western sections, which is being almost entirely neglected, and that is the European hazel, or filbert. There are several species of hazels native to North America, and two of them are very common in the Central and Eastern United States, but their nuts are usually very small. There is one species that grows abundantly in the extreme north-west, and although the bushes are large and very healthy the nuts are few and of inferior quality.

The filberts that are grown with success in England, and also on the Continent of Europe, are affected with a fungous disease of the bark in America, east of the Rocky Mountains, but so far there is no such trouble to the westward. The soil and climate in the West are well suited to the filbert, and already there are some very flourishing plantings in Oregon and Washington.

The soil that suits the filbert best is one that is rich and well drained, and not too stiff. The plants should be set about eight feet apart each way, and

kept well cultivated. They will naturally grow into clusters of stems, and some growers allow them to do so, while others train them to single stems, or with low trunks.

There are several good varieties, of which the Lambert, Casford and Du Chilly are considered the best. Plants can be obtained from some of the nurseries in this province, which of course would be safer and cheaper than importing from England. Those who have good locations for filbert growing in British Columbia should try at least a few bushes.

APPLES BY PARCEL POST.

At the December meeting of the Vernon Board of Trade a resolution was submitted for approval by the Penticton Farmers' Institute asking that, in order to facilitate the cheap transportation of fruit between the producer and the consumer, the parcels post regulations be amended so as to allow the shipping by mail of packages of 25 lbs. weight at a cost not to exceed 1 cent per pound. This resolution was endorsed by the Board.

The Provincial Poultry Show for 1915 will be held in Chilliwack.

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is in full swing, which means **TEMPTING VALUES** in all lines of Men's Furnishings and Hats, etc.

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POULTRY SECTION

Fourth International Egg-Laying Contest

The results in the fourth international egg-laying contest, held under the supervision of the Provincial Department of Agriculture, at the Exhibition Grounds, Victoria, B. C., from October 10, 1914, to October 9, 1915, 12 months, are as follows:

Total eggs laid from October 10, 1914, to December 9, 1914:

Class I.—Non-Weight Varieties.

Six Birds to a Pen.

18. L. M. Ross, Cowichan, B. C., White Leghorns, 200.
5. E. W. Estridge, Duncan, B. C., White Leghorns, 188.
10. G. O. Pooley, R.M.D. No. 1, Duncan, B. C., White Leghorns, 178.
13. H. A. Hincks, Langford Station, B. C., White Leghorns, 150.
9. R. W. Chalmers, Thrums, B. C., White Leghorns, 142.
3. Koksilah Poultry Ranch, Cowichan, B. C., White Leghorns, 132.
6. W. J. Miller, Lazo P. O., Comox, B. C., White Leghorns, 131.
16. A. Unsworth, Sardis, B. C., White Leghorns, 117.
4. Norie Bros., Cowichan, B. C., White Leghorns, 104.
19. Mrs. A. Brooke, North Arm P. O., South Vancouver, B. C., White Leghorns, 98.
8. T. H. Lambert, Cortez Island, B. C., White Leghorns, 88.
2. J. C. Butterfield, Saanichton, B. C., White Leghorns, 77.
15. L. F. Solly, Westholme, V. I., B. C., White Leghorns, 57.
1. W. Senior, 517 Langford St., Victoria, B. C., White Leghorns, 49.
17. L. H. Ashby, Cowichan, B. C., White Leghorns, 49.
12. O. P. Stamer, Cowichan, B. C., Anconas, 32.
7. Seymour Greene, Duncan, B. C., White Leghorns, 29.
11. J. A. Thurston, Central Park, B. C., Silver Campines, 14.
14. P. B. Darnell, Royal Oak, V. I., B. C., White Leghorns, 1.

Class II.—Weight Varieties.

Six Birds to a Pen.

23. Dean Bros., Keating's P. O., V. I., B. C., White Wyandottes, 194.

27. G. D. Adams, Box 840, Victoria, B. C., White Wyandottes, 188.
40. D. Gibbard, Mission City, B. C., Barred Rocks, 188.
33. P. S. Lampman, Law Courts, Victoria, B. C., S. C. Reds, 122.
35. S. Percival, Port Washington, B. C., White Wyandottes, 110.
34. E. D. Read, Duncan, B. C., White Wyandottes, 107.
29. M. H. Rutledge, Sardis, B. C., S. C. Reds, 100.
22. Jones & Rant, R.R. 1, Sidney, B. C., White Wyandottes, 99.
38. J. H. Cruttenden, 237 Princess St., New Westminster, B. C., Buff Wyandottes, 98.
37. A. W. Cooke, Box 663, Kelowna, B. C., Buff Orpingtons, 94.
31. R. N. Clerke, Vernon, B. C., R. C. Reds, 74.
30. W. S. Stewart, 1473 Fort St., Victoria, B. C., White Wyandottes, 63.
24. V. T. Price, Cowichan, B. C., S. C. Reds, 54.
21. F. W. Frederick, Phoenix, B. C., R. I. Whites, 53.
25. Reid & Greenwood, Box 928, Victoria, B. C., S. C. Reds, 40.
20. G. T. Corfield, Corfield P. O., B. C., S. C. Reds, 24.
28. W. H. Van Arum, 2434 Cadboro Bay Road, Victoria, B. C., S. C. Reds, 21.
32. W. R. Moore, Okanagan Landing, B. C., White Wyandottes, 17.
36. C. W. Robbins, Chilliwack, B. C., Buff Orpingtons, 17.
39. Mrs. J. H. Gillespie, Fairfield Road, Victoria, B. C., White Orpingtons, 10.
26. A. E. Smith, Luxton P. O., V. I., B. C., S. C. Reds, 4.

Owing to the B. C. Horse coming into camp next to pens, Class I. laid 5 dozen less eggs during week than week before; also a few in molt.

Summary of Results.

Summary of results of third international egg-laying contest, October 28, 1913, to September 27, 1914:

Duration of contest, 11 months.

Number of pens, 40.

Number of birds, 240.

Total number of eggs laid, 39,412.

Total value of eggs laid, \$1,149.51.6.

Total cost of feeding, \$443.59.

Profit over cost of feeding, \$705.92.6.
Average market price of eggs per dozen, 35 cents.

Average cost to produce dozen eggs, 13.5 cents.

Average number of eggs laid per pen, 985.3.

Average number of eggs laid per bird, 164.2.

Average cost of food per pen (six birds), \$11.08.9.

Average cost of food per bird, \$1.84.82.

Profit over cost of food per pen, \$17.64.8.

Profit over cost of food per bird, \$2.94.1.

Eggs laid by winning pen, Class I., 1,330.

Average per bird, winning pen, 221.6.

Eggs laid by winning pen, Class II., 1,258.

Average per bird, winning pen, 209.6.

J. R. TERRY, Director.
W. H. STROYAN, Poultryman.

CARE OF WINTER LAYERS.

Laying hens, like the milch cow, demand proper food. A mixed ration comprising green feed, meat scrap and grain, will, with the addition of lime in some form, supply all that is required. Fresh water is also a necessity. Chaff from alfalfa or clover affords green food. The former, ground ready for use, may now be bought by the pound. Hens eat it readily. Being rich in protein it is better for laying fowls than most forms of green food, and makes necessary less meat in the ration.

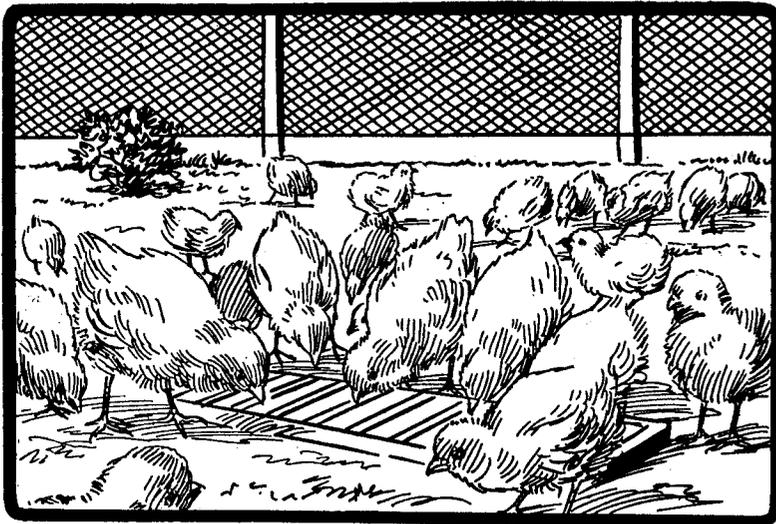
Much is being said these days about the open front houses for fowls in winter. Common sense would indicate that extreme cold should be avoided. Exercise is essential, whether by one means or another secured. Probably there is no more practical method than that of throwing whole grain in litter and compelling the hens to scratch for it. It is the active fowl that lays the egg, summer or winter.—Ella E. Rockwood.

For those who have never run an incubator before, it is well to run it two days before putting in the eggs. Read the directions that come with the machine and understand them.

STICK TO THE POULTRY INDUSTRY.

I am still in the poultry business (writes A. W. Gingery in "Western Farm Life"). Why? Because the high-feed scare has caused many to go out of the business, and some have sacrificed whole flocks of good birds that have taken them years of hard labor to build up. Did you ever know of feed being high that what it produced was not equally as high? Whether it be beef, pork, chickens or eggs.

There is no reason for good poultry men being alarmed because of the present situation we are facing on account of the European war, raising price on feed. The man with a good laying strain, properly cared for, fed and housed, will get enough eggs to pay for feed and labor and yet net him a little surplus; then next season he is ready to meet the demand. You doubtless have often heard that the poultry business is not a "get rich quick scheme," but simply growing into it and staying with it. Not only the layers, but exhibition stock will not go begging; next season they are going to be scarce and high. The only poultryman who will suffer is the fellow who has neither bred-to-lay nor exhibition stock (mon-grels). Judging from past history, the upheaving of other nations has raised the price of all food stuffs, and it will be the same on this occasion; then the consumer must produce his own meat as well as garden stuff, and city lots, back yards, etc., will be either poultry yards or garden tracts, and if poultry they must get a start from someone; there is where the "Standpatters" will reap their harvest, as price will not cut as much figure as "Can I get them?" We should not let the advance of feed frighten us to such an extent that we sell our flock and cripple our business for one or more years. I admit that the last two years have been a little dull, but we that stayed in the business will be winners and make up what we have lost. Again too often we are apt through necessity to sell too close at this season of the year, and especially when feed is high and winter staring us in the face, then regret it in the spring. Almost invariably the purchaser is posted and often picks the birds and sets the price, what I call having both ends of the string and leaving us with culls after years of hard labor in building up a flock of credit to grace our yards. I therefore insist on amateurs staying in the business (veterans will). I note already that clerks, shopmen, mechanics of every description as well as day laborers are turning to the poultry business either as a side line or engaging in it quite extensively for the reason "If we eat meat we must raise it."



Feed Your Chicks Properly Balanced Rations and the Other Problems of their Raising will be Easy

But don't complain of the cost of raising them if the ration you buy contains a number of ingredients absolutely useless, and, as is often the case, decidedly detrimental to their growth and well being.

Some chick foods are put up to sell from their showy appearance; but however much the package or its contents may please your eye, the little chick has an entirely different viewpoint. Dust, waste and useless seeds have no place in its choice of food.

Royal Standard Mills Chick Food AND Royal Standard Mills Growing Food

Have stood every test with hundreds of successful poultry raisers in this and other countries. It contains only the choicest of useful cracked grains, with just the proper proportion of Beef Scraps. It is absolutely free from dust and screenings, which condition is obtained only by the special modern machinery which we maintain for its manufacture. It is mixed in the proportion to afford the little chick and the growing chick the proper balance of Carbohydrates which supply the heat and energy; proteins to build up the tissues, and fats which act as fuel to keep up the temperature of their small but active bodies.

The Beef Scraps in our Chick Food and Growing Food is the famous "Darling Beef Scraps," universally recognized as the best and most economical.

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Royal Standard Mills Chick Food, sacks, 100 lbs., 50 lbs., 25 lbs. & 10 lbs.

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Mail the attached coupon and we will send you, without cost, a generous sample of these famous foods.

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Please send me free sample of Royal Standard Mills Chick and Growing Foods, as advertised in the January issue of The Fruit & Farm Magazine.

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Address (Post Office).....

Methods and Feeds.

I will give the methods and feeds I use, and the results are satisfactory:

My hens and pullets are running at will, have stack of fine green alfalfa, and it is surprising how much they eat of it, scarcely a leaf goes to waste. I also have some ear corn in troughs, sunflower heads in different places, from which they eat at will and get needed exercise, but as I must buy my wheat I deal it out in rations. I also have feed hoppers in different apartments containing dry mash, composed of wheat bran five parts, corn meal two parts, ground oil cake or cottonseed meal two parts, and meat or blood meal one part, with a good handful of salt to every ten quarts of the mixture. They also have carrots, turnips, squash and pumpkins; for a change occasionally, a very few onions as an appetizer and conditioner.

As the alfalfa fields are still green and quite near, I have not sprouted any oats as yet, but every other morning I take a good feed of oats, pour boiling water over them, cover up, and let stand until cool, then feed in troughs. They have plenty of sand and oyster shell at all times before them. I get the eggs and receive a good price for them, and have not yet felt like crying "hard times."

POULTRY BY-PRODUCTS.

Many poultry raisers are throwing away an opportunity to save a dollar by neglecting to utilize their hen manure. The best way to save it is the question that confronts many, so I will tell how I do it. My henhouses are all equipped with dropping boards under the roosts, from which the manure is shoveled every few days and placed in a large dry room. Here it is shoveled over occasionally and land plaster mixed with it. This process is

continued until the manure is well dried, when it is placed in barrels and boxes and left until wanted. Plaster is applied to the dropping boards. Besides drying out the manure it makes a good fertilizer in itself. I use the manure for many purposes. I put it in the grain drill and apply it to oats, buckwheat, etc., use it in the garden, or spread it on the meadows, and as a potato fertilizer I find it the best I can use.

A. E. Vandervort.

In charging an incubator with eggs they should be all of uniform size and color. The brown shells are thicker than the white shells and therefore demand different treatment. Moisture or ventilation sufficient for the one class would not do for the other. This is the cause of many failures.

Farmers in Southern Alberta have circulated a petition to the Dominion Government asking that irrigation, which was such a success as carried out by the Canadian Pacific, be extended to their lands. The present season has demonstrated the advantages of irrigation, as irrigated farms have fine crops, whereas in districts where irrigation was not available the results have been disappointing. These farmers have had the opportunity of seeing the results attendant upon the C. P. R. irrigation work; and they are anxious that their lands should be similarly treated. In their petition to the Hon. Mr. Roche, Minister of the Interior, the petitioners state that to meet the construction they will bond their land and are willing to pay the capital cost of installing this system, with interest of four per cent., extending the time of repayment of the cost of construction over a period of forty years—the first payment of such a sum of indebtedness to become due four years after the completion of the canal.

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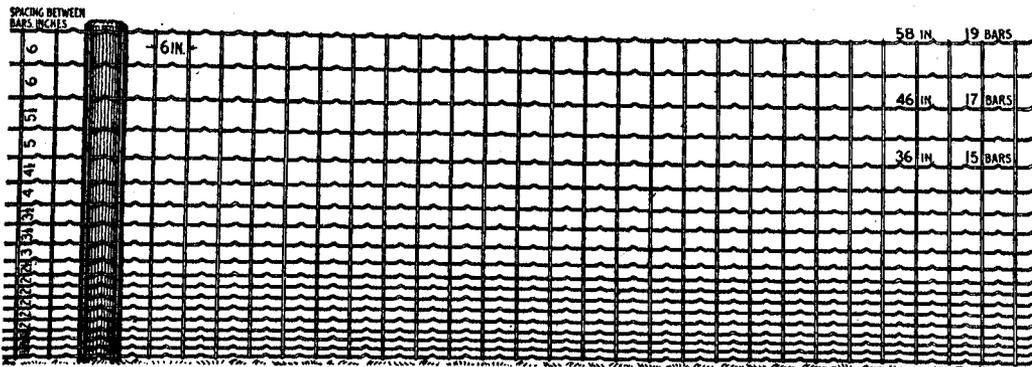
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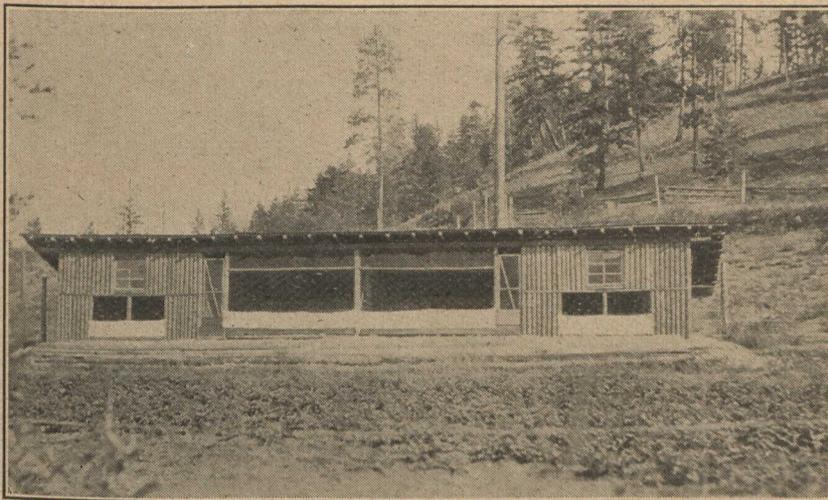
WE ALSO HANDLE "CANDEE INCUBATORS"

Reduce Cost of Feeding Poultry

The following advice has been given by the British Board of Agriculture in a bulletin to poultry raisers:

There is always a danger at a time like the present, when poultry feeding stuffs are in greater demand for other purposes, and are consequently high in price, that many poultry-keepers may be disposed to decrease the size of their flocks and restrict their operations in this direction. Such action would be against the best interests of both the

culty in making up a mixture without barley meal, middlings or bran, since these are usually the chief ingredients. In place of these foods, however, a larger quantity of vegetables can be given, together with steamed hay and clover hay chaff. It is in this direction that crops grown by the small occupier can be utilized. Lucerne, cabbages, turnip tops, kale, roots of every kind, with the exception of potatoes, can all be turned to good account. The last named, if available, must be cooked.



Chicken House at Barriere, B. C.

individual and the nation, since the greater the amount of human food produced in this country the stronger will be our position.

By making use of coarser foods than are usually employed the cost of feeding can be considerably reduced, where-as the yield need not fall off to any appreciable extent.

At the present time of year, with the hay and corn harvests over, there is no reason why on farms all poultry should not be kept out on the land. Under such conditions the birds will be able to forage for a very large amount of the necessary food, food that would otherwise be wasted. With all poultry-keepers the first consideration should be to distribute the birds over the land as far as possible. This can only be done as a general rule on medium-sized holdings and farms; allotment holders and backyard poultry-keepers are handicapped in this direction. Those who cultivate only a limited area of ground should make up for this by growing as much food as their fowls as possible.

The soft mash is a necessary part of the diet and there is considerable diffi-

Green food can be fed either raw or cooked, and under the circumstances about one-half should be given in each form. If the supply of garden produce is limited such natural crops as nettles and grass may be substituted. When these are used they should be steamed for about half an hour and added to the soft mash.

Silage is not often used for feeding poultry, but it has been employed with excellent results and is worth the attention of large poultry farmers. In feeding silage to poultry, it has been found best to add 25 per cent. of whole grains. For this purpose any of the grain foods mentioned above may be used. Silage can be fed in place of the ordinary soft mash with some middlings added to make it crumbly.

Animal food is required by the birds, and there is no better or cheaper way to feed this substance than in the form of soured skim milk or butter milk. Whenever these can be obtained they should be fed largely. They may preferably be mixed with the mash or may be given in a liquid state in drinking fountains. In place of these, refuse from slaughter-houses may also be em-

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Bordeaux Mixture in Powder for
Winter Spraying.

THE MICHAUD'S CHEMICAL PRODUCTS
CENTRAL PARK, B.C.

ployed, the blood and intestines being the most valuable.

Household scraps can be used successfully by adding them to the soft mash, but it must be remembered that they are generally composed of fattening substances. The supply is more or less limited, and therefore endeavors should be made to procure a supply from hotels, institutions, etc. They can usually be obtained for a nominal sum.

Since ordinary meals must be largely dispensed with, the ration will be on the bulky side, and hence special precautions should be taken to overcome any bad effects. Exercise is essential, and is best ensured by burying corn or seed in the litter of the house, thus inducing the birds to scratch for it. The aim should be to keep the fowls actively hungry all day, giving them the largest meal about an hour before they go to roost. By adopting a plan of this kind every ounce of food consumed will be utilized, and there will be no waste due to the birds storing up an excess of fat.

Feeding poultry will be rather more expensive than has been the case during recent years, and therefore great care should be taken to ensure that nothing is wasted. Food given should be supplemental to that which fowls can obtain by foraging.

All mashes should be fed in troughs, and only sufficient be given to satisfy the birds. Grain, except when buried in the litter, should be given in the same way. All foods should be stored in rat-and-mouse-proof bins or boxes, since these vermin cause great loss, not only consuming large quantities, but spoiling a great deal more than they eat.

It is not possible to make any radical changes in the feeding of chickens, but a larger amount of green food may be employed, and the young birds should be given as much liberty as possible. Arable land is rather better for this purpose than pasture, since it usually provides much more natural food, which is excellent for the chickens and reduces the cost of feeding very considerably.

A Chicago man once found in a barrel of apples from Michigan, for which he had paid \$4, the following note: "Dear Consumer—I was paid 75 cents for this barrel of apples; how much did you have to pay?"

The Doukhobors at Brilliant are building the largest jam factory in all Canada. Their business manager, Mr. John Sherabin, states they may commence the evaporation of vegetables soon.

FOOT AND MOUTH DISEASE.

In view of the recent serious outbreak of foot-and-mouth disease in the United States, with its subsequent serious losses and necessity for stringent measures, Canadian stock owners should acquaint themselves with the particulars of this disease. A seven-page pamphlet, prepared by Dr. J. G. Rutherford, formerly Veterinary Director-General for Canada, outlines the symptoms and appearance of the disease with its treatment and preventive measures. In view of the fact that it is one of the most infectious diseases known, attacking nearly all species of farm animals, and that the many different ways in which its germs can be conveyed from place to place, render it very difficult to prevent its spread once it has made its appearance in a community, preventive measures of the utmost importance. In this pamphlet a number of such measures have been outlined by Dr. Rutherford, a knowledge of which should prove of great value should the disease make its appearance in Canada. Copies of this pamphlet, which is No. 9 of the Health of Animals Branch of the Dominion Department of Agriculture, can be obtained by making application to the Publications Branch, Department of Agriculture, Ottawa.

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Many of our readers will be interested to know that Messrs. W. H. Gunn & Co., of 567 Hamilton St., Vancouver, are agents for the celebrated "Pittsburg Perfect" electrically welded fence. Messrs. Gunn also handle a full line of all poultry supplies, including the "Candee" incubator.



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TO STIMULATE FARM PRODUCTION.

Hon. Martin Burrell is arranging for a series of conferences throughout the Dominion in January and February, at which the farmers of the various districts will be called together and given full information as to conditions in Europe and demand for food while the war continues. The best means whereby Canada can help to meet these demands will be fully discussed by the farmers, as well as by those sent to address them. When the exact situation is impressed on them it is expected that they will respond heartily and shape their work to the best lines of production, and do their utmost to aid in their own way the efforts of Britain and her allies. Incidentally the country will benefit very greatly from the increased production.

Accurate and complete information is being gathered, and well informed and capable men will meet the farmers of Canada to discuss the whole situation. While the Dominion Department of Agriculture will undertake the work, Provincial departments will be asked to co-operate, and all organizations interested will be called upon to assist.

At a recent meeting of the Vernon Board of Trade, samples of cider of a very high quality were submitted by Mr. Frank Mitchell. Over 12,000 gallons of cider have been shipped by Mr. Mitchell from the Coldstream Ranch this year, and he has now made arrangements to establish a cider and vinegar industry in Vernon.

With only 34 entries, comprising in all only a few more than 100 boxes of fruit, British Columbia captured 25 prizes at the Seventh National Apple Show, held in Spokane, Wash., in November.



Poultry Farm on Vancouver Island

ANSWERS TO ENQUIRIES.

W. B. F., Creston.—Dexter Kerry cows can probably be obtained from the following: H. S. Rolston, secretary Vancouver Fair, Vancouver; John Lawson, Hollyburn, B. C.

W. H. W., Errington, B. C.—Goats are raised by Alex. Davie, Ladner, B. C., and C. Hawthorne, Chilliwack, B. C., both of whom were prize winners at the recent Vancouver Fair.

ENQUIRIES.

“Fruit and Farm” Enquiry Department would like to have the names of some goat breeders.

Gardening for the Home

(Continued from Page 494)

wide enough apart to admit sufficient light and air. Raspberries, blackberries and loganberries ought to be pruned immediately after fruiting by having the old canes cut out and the young ones thinned out if necessary.

Ship your **FREE**
FURS Our Trappers Guide
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 Write today, address
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VENTILATION OF FARM BUILDINGS.

“Ventilation of Farm Buildings” is the title of a recent bulletin prepared by Mr. J. H. Grisdale, B.Agr., Director of Dominion Experimental Farm, and Mr. E. S. Archibald, B.A., B.S.A., Dominion Animal Husbandman, and is-

KEEP THEM WORKING

A horse in the field is worth two in the barn. You can't prevent Spavin, Ringbone, Splint, or Curb from putting your horse in the barn but you can prevent these troubles from keeping horses in the barn very long. You can get

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at any druggists at \$1 a bottle, 6 for \$5, and Kendall's will cure. Thousands of farmers and horsemen will say so. Our book "Treatise on the horse" free. 104

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Breeders Cards

Thoroughbred Jerseys
Thoroughbred Yorkshires

One Jersey Bull, seven months old, grandson of Noble Oaklands, sold by auction May, 1911, for \$15,000. This family of Jerseys are still taking first prizes in England and U.S. Eight five months old pigs.

J. J. LOGAN, Glenwood, Agassiz, B. C.

A Breeder's Card, this size, will cost you only \$1.25 per month.

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1-5 Cash, Balance 5 Equal Payments

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NEWS FROM FARMERS' INSTITUTES

N.B.—All Subscriptions (or renewal subscriptions) to FRUIT AND FARM, which are forwarded through secretaries of Farmers' Institutes will be accepted at the reduced rate of \$1.00 per annum, instead of \$1.50.

COOMBS FARMERS' INSTITUTE.

A regular meeting of the Institute was held on Saturday, December 5th.

Meeting called to order at 2.30 p.m., with President Gregory in the chair.

Secretary F. B. Shearne read several letters, and it was moved by Mr. Garlick, seconded by Mr. House, that same be placed on file.

The Amusement Committee reported that the concert and dance held on November 20th had resulted in a credit balance of \$13.

Mr. S. Mure Little, of Hillier's, read an excellent paper on "Poultry," which was listened to by the members with great interest.

Moved by Mr. Garlick, seconded by Mr. House, that the Institute tender Mr. Little a very hearty vote of thanks. Carried.

After which the meeting adjourned to assemble again on Saturday, January 2nd, 1915, for the annual meeting.

CRANBROOK FARMERS' INSTITUTE.

At the meeting of the directors of the Farmers' Institute held on Wednesday, December 2nd, Mr. A. B. Smith was re-elected to the presidency. Mr. B. Palmer was elected vice-president. Mr. Albert H. Webb was elected secretary.

The programme for the next meeting, which will be held in the old gymnasium on Saturday, the 12th inst., at 2 p.m., was arranged.

A paper on hogs will be read by Mr. A. B. Smith. This paper was postponed at the annual meeting, as the hour was so late. A discussion on the proposed market will be held. The secretary will have a report to make on the subject, and Mr. W. Hamilton and others are expected to take a hand in the discussion. The directors would welcome attendance of members of the Board of Trade and other interested bodies.

The crux of the market seems to hinge on this question: Can the farmers of the district provide enough butter, eggs, vegetables, cream, cheese, pork, bacon, honey, and home-made products to justify the provision by the city of a public market? We know they ought to be able, but will they? To make a test of the matter, the directors of the Institute have waited

on Mr. W. B. McFarlane, who has kindly placed his old furniture store at their disposal, free of charge, for December. A public market will be held in that store on Saturday, December 19th; Thursday, December 24th, and Thursday, December 31st.

KENT FARMERS' INSTITUTE.

Kent Farmers' Institute held its annual meeting on December 21st, when the following officers were elected for 1915: James Morrow, president; Robt. Maitland, vice-president; A. McCallum, treasurer; N. T. Baker, secretary. During the year 1914 the Kent Institute has supplied its members with 2490 dollars' worth of stumping powder and other farm supplies.

The Crop Contest report is as follows: Four of the field crop winners sent exhibits to Victoria for the Government seed exhibits. Mr. S. Joynt, one bushel of peas, 1st prize in B. C.; Mr. J. Morrow, 2nd prize for peas; Mr. Isaac Else, 12 mangels, 1st prize in B. C.; Mr. F. West, 2nd prize for mangels in B. C.

MATSQUI FARMERS' INSTITUTE

The annual meeting of the Matsqui Farmers' Institute was held in the Municipal Hall, Mt. Lehman, on Saturday, 19th inst., President H. R. Phillips in the chair. Jas. Gibson, C.M.C., and Councillor Melander, as auditors, made their report. The balance sheet showed cash on hand of \$36, notwithstanding that \$55 had been expended this year for another Duplex Spray Pump, and \$30 for patriotic purposes. The secretary gave a full report of the children's potato crop competitions. It was decided to carry out the same competitions during the coming season. The president offered to give each of the competitors three pounds of a choice variety of a two-rowed barley, each plot to be judged standing, and also in sheaf at the Matsqui fair. Valuable prizes will be offered in both instances.

The following were elected officers: President, H. R. Phillips; vice-president, W. J. Marsh; secretary-treasurer, P. Jackman; directors, A. Gillies, Fred Martin, J. A. Morrison, W. Towlan, Jas. Gibson.

"Your magazine is still my favorite agricultural journal. I wish you success."—John O'Brien, Lorane, Ore.

MERRITT FARMERS' INSTITUTE.

The farmers were fairly well represented at the annual meeting of the Farmers' Institute held in the City Hall on Monday, December 14.

The president of the Institute, Mr. Whitaker, opened the meeting, and the minutes of the previous meeting were read and confirmed.

The principal business was the election of officers, and the following were elected: Mr. Whitaker was re-elected as president; Mr. R. Dodding was made secretary-treasurer, and the directors were elected as follows: Messrs. R. L. Clark, W. B. Jackson, M. Winney, J. Manning, J. Baldwin, H. S. Cleasby and J. Smith.

A letter of thanks was read from the Patriotic Fund for the donation sent to them by the Farmers' Institute.

It was agreed that the cup given to the Nicola Valley Agricultural Association, for yearly competition, be suitably inscribed, and that a silver plate be put on it and the winners of this cup at each fair to have their names engraved on the ornament.

NORTHERN OKANAGAN FARMERS' INSTITUTE.

The annual meeting of the Northern Okanagan Farmers' Institute was held in K. of P. Hall Saturday afternoon, December 19, President Little in the chair and some twenty members present.

In the report read it was announced that in order to obtain the Government grant the Institute had been incorporated under the 1913 Act. A falling-off in membership was reported.

The following directors were chosen: Messrs. Little, Emeny, Harrop, W. Monk, Proctor, W. Fenton and Handcock.

Mr. Little then presented the cups and cheques to the winners of the crop competitions. The cups were won by J. F. Moore, Enderby, for grain, and W. Monk, Grindred, for mangels.

"I got a copy of your excellent journal last week, and it contained two paragraphs in which I am interested."—Jas. Maclean, Shusharti, B. C.

REVELSTOKE FARMERS' INSTITUTE.

The election of president at the Revelstoke Farmers' Institute meeting last Saturday evening provoked a near contest. Mr. W. E. Smith, Mr. Pete Levesque and Mr. Leslie were nominated. Twenty-one votes were cast for Mr. Smith, 19 for Mr. Levesque and two for Mr. Leslie. Mr. Smith was declared elected. Mr. Levesque was elected vice-president by acclamation. Mr. W. E. Potruff was elected secretary-treasurer by acclamation. The following directors were elected: Messrs. H. McKinnon, D. Campbell, C. Granston, A. McDonnell and R. Smythe.

ROBSON FARMERS' INSTITUTE.

At the monthly meeting of the Robson Farmers' Institute on Thursday, December 3rd, it was decided to cooperate with the Salmon Arm Farmers' Institute in an endeavor to have granted cheap money to the members of farmers' institutes throughout the province. Dr. A. P. McDiarmid, A. D. Clyde and Gordon R. Brown were appointed a committee to take the matter up with Premier McBride and James H. Schofield, M.P.P.

J. C. Readey, of the Provincial Soil and Crop Department, addressed a meeting of the Robson Farmers' Institute on Thursday evening, December 17th. Mr. Readey pointed out to the members the possibilities of seed growing for the next couple of years owing to the European supply being cut off. He also urged the ranchers to include the raising of stock among their activities, not only for the financial results to be obtained, but also because of the good results to the soil accruing in the manure. The rotation of crops also came in for the speaker's attention. He dwelt upon the aid his department was extending to the ranchers, prominent this year being silo building. A silo in each district would be built free by the department and a machine installed for the cutting of the crop for the first year, providing one of the residents of the district would supply the material for construction. This, he thought, would be a nucleus for the adoption of the silo method of feeding throughout the province and an encouragement to keeping more stock.

SOUTH KOOTENAY FARMERS' INSTITUTE.

The annual meeting of the South Kootenay Farmers' Institute was held in the school house at Columbia Gardens. There was a large attendance from Fruitvale, Columbia Gardens, Meadows, Trail and Ymir, these being the places embraced in the Institute. The directors and officers were elected

as follows: Hon. president, J. H. Schofield, M.P.P.; president, M. Hill, Waneta; vice-president, W. S. Paull, Columbia Gardens; sec.-treasurer, William Neilson, Fruitvale; directors, W. N. Scott, Trail; Stephen Brewster, George O'Dey, Fruitvale; T. McCole and E. I. Grontage, Columbia Gardens.

A pruning school will be held in Fruitvale this winter.

It is the intention of the directors to organize on the share basis and go into the business of storing feed, hay, coal oil, etc.

SOUTH SLOCAN VALLEY FARMERS' INSTITUTE.

A meeting of the South Slocan Valley Farmers' Institute was held Saturday, December 12, at Passmore. C. S. Brokington presided, and the secretary, Edgar Jamieson, read communications from the Department regarding pruning and crop competitions. Nine members have already agreed to take the pruning lessons which it is hoped to arrange early next spring. As there is to be no convention at Victoria, some of the members thought it might serve a good purpose if a district convention were held, say, at Nelson this year. On the question of loans to farmers, the following resolutions were passed:

"That in the opinion of this Institute no more urgent or progressive measure could be enacted at the next session of parliament than that which would give effect to the recommendations of the Royal Commission on Agriculture, in regard to a system of loans to farmers on lines similar to the one in operation in New Zealand with such beneficial results.

"It is further the opinion that the Government, by devoting more of its energies to the needs of the present agricultural settlers, would thereby not only create satisfaction, but build up an advertising medium of the most effective kind.

"Also that copies of the foregoing resolutions be submitted to the Premier, asking him to give facilities for the passage of this act, to William Hunter, M.P.P., and J. H. Schofield, M.P.P., and D. G. Eaton, secretary of the Silver Creek Farmers' Institute, Salmon Arm.

The annual meeting of the Farmers' Institute has been fixed for January 8 at Slocan Park.

STRAWBERRY HILL FARMERS' INSTITUTE.

The usual monthly meeting of the Farmers' Institute was held in the Institute Hall on Saturday, December 5. A good attendance was recorded.

The Institute is to purchase badges for the officers. The New Years' social is to be under the auspices of the Far-

mers' Institute and not in co-operation with the Women's Institute as at first suggested. The committee appointed to carry out the necessary arrangements are: A. Walden, president; R. J. Anton, secretary-treasurer; G. Stafford, F. Hicklenton, J. Moffat and A. Leshin. The annual meeting and election of officers for 1915 will be held on January 2. President A. Walden presided. Word has been received by Mr. A. Leshin from Victoria that he had won the first prize in the field carrot competition, conducted by the Department of Agriculture throughout the province. He also gained second prize in the local competition run by the Farmers' Institute under the Department.

WESTBANK FARMERS' INSTITUTE.

The regular monthly meeting of the Farmers' Institute was held on Tuesday, December 1. A fair proportion of the members were present. The large. One of the most important items had to do with Government loans to amount of business on hand was not farmers. A letter and resolution from the Silver Creek Farmers' Institute, near Salmon Arm, was read and discussed. This resolution urged the Government to take steps similar to those suggested in the report of the Agricultural Commission towards assisting the farmers in the development of their land. Copies of this resolution have been sent to other Institutes in the province for consideration. It was heartily seconded by the local Institute.

Succulent feed is nature's feed. Fodder and grasses in their green state are the best feed we can get for our stock. When dried out, it loses moisture or succulence and certain flavors which are present in the green state. We all know the superior flavor of the fresh apple over the dried product. It is the same with bundle corn and ensilage with a little more in favor of the silage, as the fodder is not cared for nearly as well as the dried apple. When left out in the shock for the elements to work on it and fill with dust and dirt, it loses much more than the chemists' analyses show, namely, succulence or taste. It is the universal testimony of feeders that silage has a beneficial effect on the cow's system, as it has a mild laxative effect similar to grass or green fodders; thereby inducing the cow to eat more dry feed.

"Allow me to congratulate you on the bright and exceedingly helpful publication which you furnish. I hope that you are meeting with the support that your enterprise deserves."—(Professor) Thos. Shaw, Agricultural Expert, G. N. Railway.

British Columbia Women's Institutes

Motto: "FOR HOME AND COUNTRY."

CENTRAL PARK WOMEN'S INSTITUTE.

With a large attendance of members present, the Central Park Woman's Institute held its regular monthly meeting in the Agricultural Hall, Central Park, Thursday, December 17th. Several members of the executive who recently visited the Royal Columbian Hospital in New Westminster at the invitation of the management, gave an interesting report. Members from the various institutes have been invited to visit the hospital in order to bring before them the difficulties of financing the institution, and also that they may understand the best ways and means of giving assistance. In a letter, Mrs. Davies, Provincial President of Women's Institutes, suggested that a travelling library should be procured for the institute and schools in the neighborhood. The members decided that such a step was not necessary, as practically all the members could obtain books at the Carnegie Library. It was suggested that a committee should be formed to visit the schools in the district at least once a month to report on general conditions. The election of officers for 1915 will take place at the next monthly meeting.

DUNCAN WOMEN'S INSTITUTE.

At the Women's Institute meeting held on Tuesday afternoon, the 8th inst., about fifty members were present with Mrs. Hayward in the chair.

The Friendly Help Committee reported twelve families on their list. A number of children need to be provided with winter clothing. An appeal was made for donations of cake, chickens, jam, fruit, toys, etc. for Christmas hampers to be sent out at Christmas. Most generous promises were made from those present.

Mr. Povah gave a short talk on business methods, advocating the teaching of honor and fair dealing in the home. Miss Rudkin, Miss Joan Palmer, Mrs. E. Price, Miss Morley and Mrs. Povah took part in the musical programme, after which tea was served.

LANGLEY WOMEN'S INSTITUTE

Langley Women's Institute held its last meeting for the current year in the Town Hall, Langley Fort, on Tuesday afternoon, December 15, Mrs. Coulter, president, taking the chair.

A debate on "Whether Married Life Is Preferable to Single Life" was ably

led by Mrs. W. Brown and Miss Reid, the former taking the affirmative side and the latter the negative.

Each lady answered the roll call by naming a popular winter amusement.

Before the meeting adjourned, it was intimated that the annual general meeting would be held on the third Tuesday in January, when this year's business would be closed and the Institute re-organized for the coming year.

MATSQUI WOMEN'S INSTITUTE

The Matsqui Women's Institute held its last meeting of the year on Wednesday, December 9th, at the home of Mrs. Wright. Thirty members were present and a number of guests. The meeting decided to endorse the candidature of one of its members as School Trustee in the coming municipal elections, the popular opinion indicating as its choice Miss L. E. Cruickshank, president of the Institute.

It has been decided to apply for the Travelling Library furnished by the Government; also to send a donation of jams and jellies to Vancouver to be distributed to the needy through the Central Park W. I. The women were then entertained by a most interesting and instructive demonstration on decoration of cakes by Miss P. Sharp. After a social half hour the meeting adjourned to meet in January at the home of Mrs. A. O. Hougen.

PENTICTON WOMEN'S INSTITUTE.

A very interesting meeting of the Penticton Women's Institute was held Tuesday afternoon, December 15, in Oddfellows' Hall. There was a very good attendance of members. Demonstrations of supper dishes were given by two of the ladies, Mrs. Burch and Mrs. White, and Mrs. Frank Richardson read a most instructive paper on "Electrical Aids in the Home." This paper was practically illustrated by J. J. Dunn, who explained the usefulness of numerous electrical devices in household work.

SHAWNIGAN LAKE WOMEN'S INSTITUTE.

There will be an Institute here at the first of the year; the inaugural meeting is booked for Thursday, January 7th.

Miss Alice Ravenhill had formed the ladies of the district into a Red Cross

Society, and also had formed classes for the study of first aid and home nursing. The work of the Women's Institute being laid before them, they decided to organize permanently as an Institute, and nearly 50 ladies have signed the application for an Institute.

The Canadian Red Cross Society has written that the quality and finish of the contributions from their society has attracted special praise and notice. The Institute shipment consisted of 250 articles, including 50 sleeping helmets, 50 body belts, 30 pairs socks, 30 pairs wristlets, 4 dozen flannel nightgales, 30 "helpless case" shirts, besides bed socks, slippers and covers for hot water bags.

Of these, the knitted articles were sent to the Willows Camp for the use of the 88th Fusiliers, and the Hospital contribution was sent to the Red Cross Society.

A further shipment of slippers and belts will be sent in a few days. At a recent concert in aid of the Red Cross Society the sum of \$87.00 was cleared.

SUMMERLAND WOMEN'S INSTITUTE.

A particularly interesting and pleasant meeting was that of the Summerland Women's Institute on Friday, December 4th. About 40 members were present with the president, Mrs. Hayes in the chair. After the minutes of the previous meeting, some correspondence and the roll call had been attended to, the meeting proceeded to the business of election of officers for the year 1915, and the following were appointed to the various responsibilities: President, Mrs. W. H. Hayes; vice-president, Mrs. Wellington Watson; secretary-treasurer, Mrs. G. Morgan, by acclamation; directors, Mrs. R. M. Ross, Mrs. H. A. Solly, Mrs. George Gartrell, Mrs. Anguin and Mrs. M. Tait; visiting committee for town, Mrs. W. Limmer and Mrs. George Gray; for West Summerland, Mrs. H. A. Solly, Mrs. H. H. Elsey and Miss Campbell; for Trout Creek, Mrs. W. Verity and Miss Thornethwaite; for Upper Trout Creek, Mrs. G. J. Coulter White; for Peach Orchard, Mrs. Estabrook and Mrs. Williams. A paper on "A Woman's Public Duties," prepared and read by Mrs. S. Everton, was an outstanding feature of the meeting, and showed careful preparation and a knowledge of her subject. A paper on the subject of "Christmas Suggestion" was read by Mrs. R. C. Lipsett. This was written by a member of the

Salmon Arm Institute, who had lived part of her life in New Zealand. She described the manner of the Christmas celebration in that country, and advanced the idea that Christmas festivities, though they may be curtailed, should not be eliminated this year on account of the war. Especially where there are children should there be efforts towards the annual celebration, but each child should give up something towards comforts for the soldiers. Many ideas for gifts, practical and economical, were enumerated. Mrs. Hays distributed among the members daffodils and polyanthus narcissus bulbs for planting, which will later make a nice showing for sale.

SURREY WOMEN'S INSTITUTE.

The Surrey Women's Institute held their monthly meeting Tuesday, December 1, in the Municipal Hall, Cloverdale. Mrs. H. Tarves, president, in the chair.

Among the correspondence read by the secretary was the report of the Library Committee, which was formed at the annual conference in June. This took the form of a number of suggestions to the institutets. As this was the last meeting of the year, the meeting decided to leave the consideration of these suggestions till 1915.

There was also a letter from Mr. Scott, Deputy Minister of Agriculture and Superintendent of Contributions, acknowledging the contribution sent by the Surrey Women's Institute to the Institute Patriotic Fund and expressing his gratification at the hearty response his appeal had met from the Women's Institutes and Farmers' Institutes.

Mrs. Hill read a very interesting paper on "Fiction," after which the meeting adjourned to Tuesday, January 5.

A very successful patriotic entertainment was given by this Institute on Tuesday, December 8, in the Cloverdale Opera House. The chair was taken by Mr. F. J. MacKenzie, M.P.P.; who gave a brief address. The farce by Sydney Crunds entitled "The Snowball," was then given in very finished style by the St. James' Dramatic Club, of Vancouver, and was much appreciated by the audience.

"I have some numbers of 'Fruit and Farm' in my school and find them of great value. I also expect to be going in for school gardening in the Spring, when your magazine will be invaluable."—C. L. Thornber, Tecumseh Public School, South Vancouver.

One of the largest buildings at the Panama-Pacific Exposition is that devoted to the exhibits of the natural resources of Canada which covers an area of about 700,000 square feet.

The exposition will open on February 20th; but the Canadian building, which is in charge of Colonel William Hutchinson, Exhibition Commissioner for Canada, will be ready for inspection before this date. The commissioner has a staff of eight experts at work.



MID-WINTER SALE CATALOGUE

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No man or woman likes to be considered older than he or she really is. In fact, we all aim to preserve our youth.

One of the greatest factors towards a good looking and youthful appearance is good teeth.

But many people's teeth fail them and decay while they are still young, and their removal becomes necessary, and with each tooth removed the former strong, firm and youthful lines of the face disappear. Wrinkles and other signs associated with old age appear, and you look old when you should not.

No man can improve on nature, but skilful dentistry can go a long way towards replacing natural teeth, and in all branches of modern dentistry there is no more important branch than that which is devoted to plate work.

The importance of plate work can not be exaggerated. The plate and the teeth attached to it must minutely conform to every line and curve, every depression and elevation of the mouth and jaws; and remember, nature never makes two people exactly alike.

Now, the average dentist does not take time to do, or even supervise the various details of his plate work—he has not got the facilities.

True, he takes an impression and a bite of the patient's mouth, but the next and most important stage of actually making the plate is completed outside of his office in a "commercial laboratory" by men who are purely mechanics, who never saw the patient and who therefore can not appreciate the individual peculiarities. This is the reason that brings hundreds of people to my offices to have their plates fixed.

The Ethical Dentist who supplied these ill-fitting plates has secured his fee, and that is all he cares about. No guarantee attaches to his work, because he is protected by a trust—the Ethical Dental Trust, which says to its members: "You don't have to guarantee your work."

Now, the outstanding feature of my business as a dentist in this city and province is the absolute guarantee which I attach to all my work. Were I obliged to send work out of my office, I could not safely make this guarantee. I can not and would not pretend to do all the work myself, but I personally supervise every detail. Each of my mechanical departments is in charge of a highly trained specialist. They consult with me on all details, thus no peculiarity of a patient whom I have examined can escape them.

An ill-fitting plate, like an ill-fitting suit of clothes, detracts from your appearance, and both cause you embarrassment. But an ill-fitting plate, when the workmanship and materials are poor, is in addition a menace to the wearer.

If you are having trouble with your present plate, or if you are without a plate, and would improve your appearance, to be free from the imputation of old age, consult me today.

I will tell you honestly and fairly what work you require.

I will tell you the cost beforehand. I will make no charge for my examination and advice, and I will give you an absolute guarantee of the work I do for you.

Dr. A. M. LOWE

DENTIST

108 HASTINGS STREET, WEST

Cor. Hastings and Abbott Streets

Opp. Woodward's Department Stores

THE PHILOSOPHY OF GRAFTING.

By Tom Wilson, F.R.H.S.

The art of grafting is an important operation in horticulture and has been known and practised from very early times. It is done to change the nature of the plant; sometimes to retard the growth, and at other times to accelerate the growth of slow and weakly growing plants. Then again there are some plants with the geotropic or earth seeking habit, as in the so-called "weeping trees." In this case a scion is transferred to an upright growing stock which insures the pendulous habit being seen, instead of lying prostrate on the ground as it would naturally do.

Grafting also insures hardihood in some varieties of roses, and we learn that in Australia it is practised on apples by using certain stocks to guard against the root form of the insect known as the woolly aphis, as it has been found that some roots enjoy a complete immunity against the attacks of this most destructive pest. In France the American varieties of grape are used to work the finer kinds on so as to escape the ravages of the phylloxera, which threatened some years ago to put an end to successful grape growing in that country.

It is usually the practise to use stocks and scions as nearly related as possible, as apple to apple, and it has usually been thought that if not impossible it was at least highly improbable that one could work a drupaceous or stone fruit on to a pomaceous stock—for example, graft a plum on to an apple.

Some time ago the writer was told of such an instance, and supposed that some case of accidental inarching had taken place; that a branch of a plum growing in close proximity to an apple tree, the branches had comingled so as to form a kind of natural cross graft.

On paying a visit to the said tree, it was found to be a case of artificial transference. Some four years ago the owner of the place in question transferred a bud from a neighboring plum tree to an apple tree in his garden and this took hold and grew, and during the past season bore and ripened a bunch of plums.

This is the first time that this has come under the writer's notice, and it would be interesting to know if any of the numerous readers of this journal have seen such another occurrence.

Mr. W. T. Macoun, Dominion Horticulturist, Ottawa, writes on the subject: "I have never seen a plum successfully grafted on an apple, and doubt very much if a good graft could be made."

We know that no true organic union takes place, but mechanical connection can be made enough to convey sap to the extremities, although there is no fusion of the woods of the stock and scion. This can be very well seen in the case of an apricot worked on to a plum stock. If by accident the tree should get broken off, it will be found that at the point of juncture the connection is very like a "ball and socket" joint, or, if a longitudinal section be made with a saw, it will be seen that there has been no absorption of the one wood by the other.

It is interesting to know what the ancients knew about this very interesting subject. In the second book of Virgil's Georgics (Footnote) we find the following:

"'Tis usual now an inmate graft to see
With insolence invade a foreign tree.

Thus pears and quinces from the crab
tree come,

And thus the ruddy cornel bears the
plum;

The thin-leaved Arbut, hazel graft receives,

And planes huge apples bear that bore
but leaves;

Thus mastful beech, the bristly chest-
nut bears,

And the wild ash is white with bloom-
ing pears;

And greedy swine from grafted elms
are fed

With falling acorns that on oaks are
bred.

But various are the ways to change the
state

Of plants to bud, to graft, to innocu-
late;

For where the tender rinds of trees dis-
close

Their shooting gems, a swelling knot
there grows.

Just in that space a narrow slit we
make,

Then other buds from bearing trees we
take;

Inserted thus, the wounded rind we
close,

In whose moist womb the admitted in-
fant grows.

But when the smoother bole from
knots is free,

We make a deep incision in the tree,

The battering bastard shoots again and
grows;

And in short space the laden boughs
arise

With happy fruit, advancing to the
skies.

The mother plant admires the leaves
unknown

Of alien trees and apples not her own.
Footnote.—Dryden's translation.

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B. C. FRUIT AND FARM

CALGARY SHIPPERS DESIRE GOVERNMENT INSPECTOR FOR VEGETABLES.

The Vernon Fruit Company, Ltd., whose head offices are at Calgary, have addressed the following letter to the Minister of Trade and Commerce:

"Calgary, Alta., Dec. 10, 1914.

To Sir George E. Foster,
Dept. of Trade and Commerce,
Ottawa.

Dear Sir—We have long felt the need of an Inspector for Vegetables, just as we have for fruit. We often buy potatoes from the grower, writing him that they must be carefully graded, clean of scab, cracks, etc., only to find on the arrival of the car that the potatoes run small, considerably scabby, and other disqualifying features. The grower is indignant at our complaints, accusing us of dishonesty, etc.

To avoid such unpleasant disputes we are forced to buy from shippers and jobbers, and the farmers complain because we will not deal directly with them. We do not wish to infer that all growers are dishonest. However, his own product certainly looks better to him, than it does to the city buyer.

It is an expense for growers at small points to have to get a shipper from some distance away to come and buy his stuff. It is also expensive for him to bring the vegetables to the market himself. If he brings the car to market it means a long railway journey for him, and when he reaches the city he finds that he is up against a city transient trader's licence, and so at the mercy of the buyers.

Had we a trained Vegetable Inspector (possibly the present Fruit Inspector could handle this line without any particular trouble or additional expense), we are sure this Inspector, when necessary, would prove a boon to the producer and also the buyer, as well as greatly stimulate trade.—Yours truly,

VERNON FRUIT CO., LTD.
I. J. Fee, Mgr."

First prize honors for the Province in the children's crop competitions have been won by Allan Crouter, who resides at Vedder River. Allan Crouter, who entered under the auspices of the Chilliwack Farmers' Institute, had no suitable land of his own, and rented a tenth of an acre from Mr. P. W. Crankshaw, of Sardis. This he cultivated assiduously, and has taken first place in the Province, winning the pure-bred heifer calf given by the Provincial Government to the successful competitor.

HOW TEACHERS MAY HELP.

By Ellen B. McDonald, Superintendent
of Schools, Oconto County,
Wisconsin.

The teacher can help the homes of her district only through her natural work in the community, and not by trying to apply any external "cure all" for economic problems.

The teacher has many opportunities to bring her work into close relationship to the home. Take arithmetic, for instance. She can apply the fundamental operations to egg and butter accounts; to farm work problems; to problems based on the milk sheet; to the building of a new silo, barn or school; to a simple system of farm bookkeeping; in short, to any of the live interests of the farm.

It is possible to make the work in agriculture practical. When studying corn, why not study the real thing, not a text book. Why not visit a field, select best stalks, and best ears, get the state circulars on corn selection, curing and testing and make racks for drying, and later on actually test the seed. It is not necessary to limit this work to the class in agriculture, for it is possible to get the whole school and the community interested. As part of their school work she can have the pupils select and fire-dry corn at home and, later in the season, test it.

Other topics in agriculture offer the same opportunity for work that will reach the home—weeds, poultry, silos, alfalfa, and use of the Babcock tester. The wide-awake teacher will get a tester for the school and use it freely. She will have pupils demonstrate its use at evening programmes and make tests for each home. They can keep milk sheets, and weigh the milk every day to determine actual value of cows. Pupils are exceedingly interested in this work, and older boys will come in for the winter months if they find something practical offered.

School credit for home work offers another field where the teachers may help. The child needs to keep his interest in the home very close to his interest in the school. He must be ready to help at home and do it cheerfully as part of the day's work. Experiments show that school credit for home work does create and maintain this attitude. The plan does not need explanation, for it is well known in Wisconsin, and wherever it has been tried, has found enthusiastic support.

In short, the teacher who wishes to help must feel that she is a part of the community, and must be loyal and ready to serve.

Soluble Sulphur Compound

Many of our friends are desirous of trying this material as a winter spray, and to meet their wishes we have decided to supply it. Until it is thoroughly tested in B. C., we do not feel like endorsing it for general use, but we certainly recommend experimental work. This material has been tried in Ontario, Oregon, Washington and New York State, and many reports say it is very effective. Certainly, if it does work well, it has several advantages over Lime-Sulphur Solution, in that it is supplied in powder form, is readily soluble in water, and dispenses with heavy handling, as well as a great proportion of the freight charges.

DIRECTIONS: Use 1 lb. Soluble Sulphur Compound to every 4 imperial gallons of water.

The Victoria Chemical Co., Ltd.

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B. C. FRUIT AND FARM

HORSES FOR THE ARMIES.

Earl Kitchener said at the outbreak of the present terrible war that the conflict would last at least eighteen months. It is not difficult to imagine how many horses, as well as brave men, will be lost during this period.

Even now horses are in constant demand, and the wise farmers who raised their colts are reaping the benefits of their foresight.

Many horses which would not be accepted by the army in their present condition can, it is claimed, be made sound and active with Kendall's Spavin Cure. This famous remedy is said to have saved farmers and stockmen thousands of dollars by curing their stock of spavins, ringbones, curb, splint, cuts, bruises, sprains, soft bunches, and all lameness requiring a liniment.

Dr. B. J. Kendall Company, of Enosburg Falls, Vermont, have published a book, "A Treatise on the Horse," which may be had at all druggists free, or upon application to the publishers. With this book and Kendall's Spavin Cure any farmer can be his own doctor.

NEW LANDS.

"Surveyed lands for settlers" is the title of an interesting pamphlet just issued by the Department of Lands, Victoria. It holds two maps indicating the surveyed lands along the line of the new railways where thousands of pre-emptions await the settler. In the Lillooet district there are 518,195 acres of surveyed lands available, and in the Cariboo district the available surveyed lands total 789,752 acres.

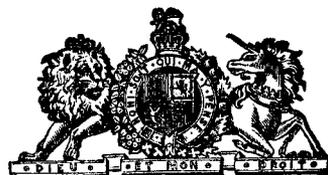
Poultry produces more wealth for Oregon annually than does fruit, it produces half as much as wheat, three times as much as wool, one and a half times as much as hops, 60 per cent. as much as hay, twice as much as oats, and 6 per cent. of the total agricultural wealth of the State.

WOMEN'S INSTITUTE AT BARRIERE.

The Department of Agriculture has authorized the organization of a Women's Institute in the district of Barriere, B. C., the first meeting to be held on Wednesday, February 3rd, at the house of Mrs. White, Chinook Cove, B. C.

"I get your paper each month and we are quite pleased with it."—Edwin A. Wells, Sardis, B. C.

"You have surely one of the best magazines for farmers."—R. S. Johnson, Bow, Wash., U. S. A.



Synopsis of Coal Mining Regulations

Coal mining rights of the Dominion, in Manitoba, Saskatchewan and Alberta, the Yukon Territory, the Northwest Territories and in a portion of the Province of British Columbia, may be leased for a term of twenty-one years at an annual rental of \$1 an acre. Not more than 2,560 acres will be leased to one applicant.

Application for a lease must be made by the applicant in person to the Agent or Sub-Agent of the district in which the rights applied for are situated.

In surveyed territory the land must be described by sections, or legal subdivisions of sections, and in unsurveyed territory the tract applied for shall be staked out by the applicant himself.

Each application must be accompanied by a fee of \$5, which will be refunded if the rights applied for are not available, but not otherwise. A royalty shall be paid on the merchantable output of the mine at the rate of five cents per ton.

The person operating the mine shall furnish the Agent with sworn returns accounting for the full quantity of merchantable coal mined and pay the royalty thereon. If the coal mining rights are not being operated, such returns should be furnished at least once a year.

The lease will include the coal mining rights only, but the lessee may be permitted to purchase whatever available surface rights may be considered necessary for the working of the mine at the rate of \$10 an acre.

For full information, application should be made to the Secretary of the Department of the Interior, Ottawa, or to any Agent or Sub-Agent of Dominion Lands.

W. W. CORY,
Deputy Minister of the Interior.

N.B.—Unauthorized publication of this advertisement will not be paid for.—58782.