

BRITISH COLUMBIA

FRUIT *and* FARM

MAGAZINE

Vol. VIII., No. 12

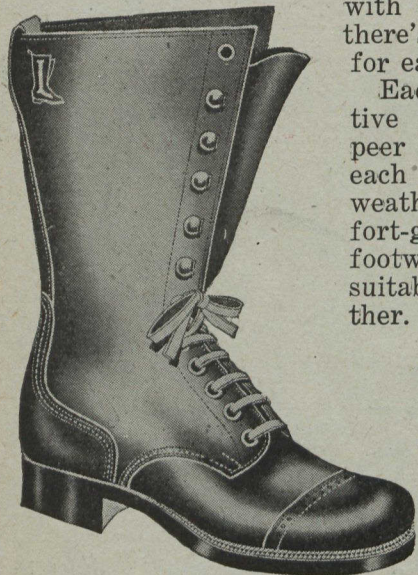
DECEMBER, 1916



Season's
Greetings

Leckie Boots

The "out-o'-door" man—the man who has to do with the woods—or the farm—or the mines—the man who hunts, or prospects—the business or professional man who has most to do with the city streets—there's a Leckie Boot for each.



Each, in its respective field, has not a peer in the world—each a wear-resisting, weather-defying, comfort-giving article of footwear particularly suitable for B. C. weather.



AT YOUR SHOE DEALERS OR GENERAL STORES.

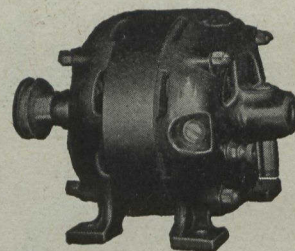
"The quality goes IN before the name goes ON—that's a Leckie."

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The March of Progress

Electric Light
Electric Railways
Electric Power on the Farm

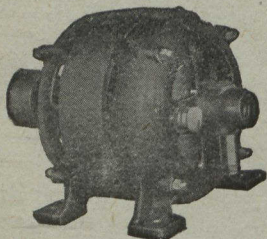


What electricity is doing to bring comfort, convenience and prosperity to millions of others, it will do for the farmer.

Electricity is a labor saver; it makes a man's time more valuable. It is cheaper; it is more reliable. It works 24 hours a day without rest. It is always ready.

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Chilliwack.
North Vancouver.

Victoria.
Port Moody.
and other places.

New Westminster.
Abbotsford.
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BRITISH COLUMBIA

Fruit and Farm Magazine

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

Vol. VIII.—No. 12

Vancouver, British Columbia

\$1.00 per year
in Advance

The Kelly Farm in Surrey, B. C.

One of the Most Complete and Up-to-date General Farming Outfits in the West.

(By S. P. JACKSON.)

The name of Robert Kelly is one of the most familiar in the whole Province of British Columbia. As the head of Kelly, Douglas, wholesale grocers, his name is al-

Burned Up Old Buildings.

"I paid \$60,000 for this place two years ago," said Mr. Kelly, "\$120 per acre. It

up. There isn't the smallest remnant of any of the old buildings left."

Robert Kelly is reputed to be a very wealthy man, but he was found with a bunch of men pulling mangels, and apparently enjoying it.

"Are you running this place for amusement, or is it for the money there is in it?" he was asked.

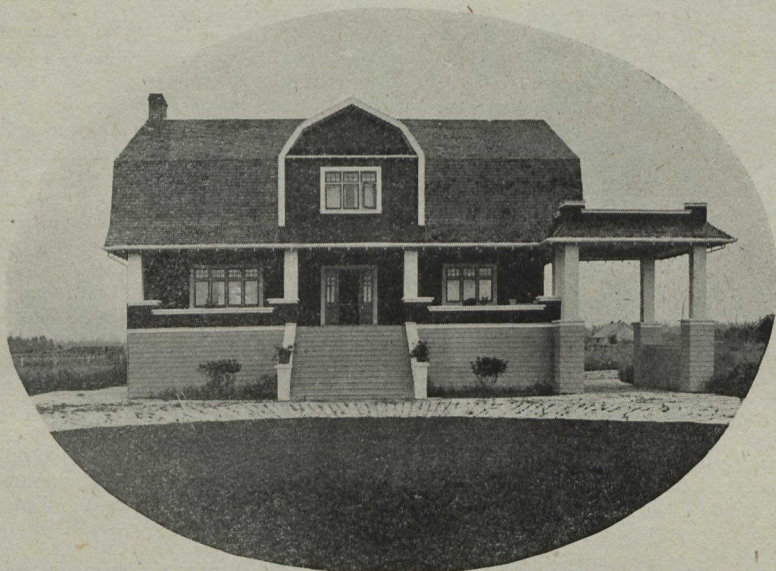
"Both," he replied briefly. "I come out here nearly every week for a day or two, and I hate to go back when I get here. It has been a big job whipping this place into shape, and has cost a lot of money, but I have enjoyed it all."

"You think there will be money in it?"

"I cannot see how it can fail. I am selling my hogs in Vancouver for 17c per pound. Everything else is correspondingly high. It is all a question of management. This is a big business and it takes some executive ability to handle it, but I think I have the men now."

Continuing, Mr. Kelly said it was his purpose to stock the farm for all it would carry, and to provide as complete an outfit for caring for them as could be had. This all was going to take time, but they were making good headway, and it would not be long before it would be accomplished.

"We have a few 'boarders' among our



Mr. Robert Kelly's Farm House

most a household one, and in the ranks of Liberals who interest themselves, particularly in federal politics, he has for many years been recognized as a power.

It is not, however, so well known that Robert Kelly is interested in farming and is the owner of one of the best farms and one of the completest, most up-to-date general farming outfits in the west.

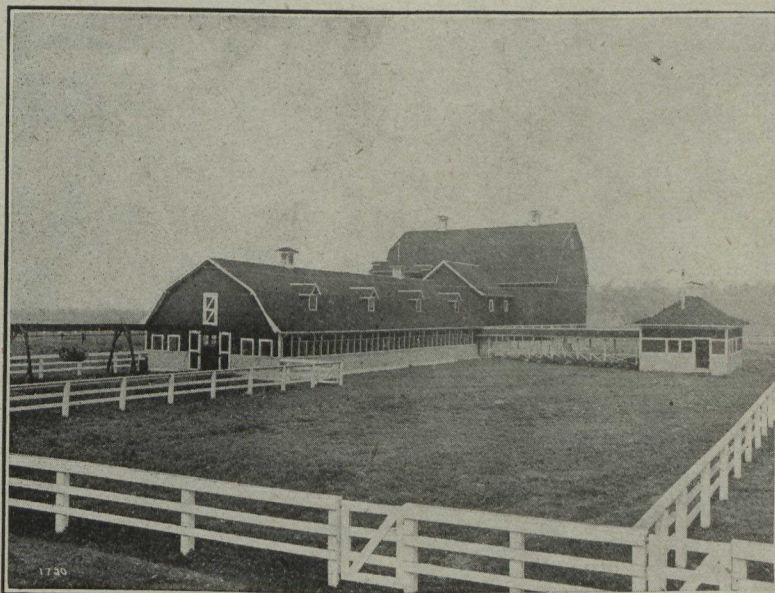
"Do you want to see a real 'bang-up' farming outfit?" I was asked the other day. Assured that such was my desire, the speaker replied:

"Then go and see the Kelly farm."

"Where is it situated?" I asked.

"Out in Surrey. You take the tram and get off at Sullivan. Walk two miles south; you can't miss the place; and you will see as complete an outfit in many respects as there is in the west, outside the government model farms, and in some ways it compares very favorably with the best of them."

In response to this lure I made the visit, and, putting it mildly, it was worth while. The farm is on the Johnston Road, and, as stated, is about two miles from Sullivan, perhaps 10 miles east and south of New Westminster. It consists of 500 acres of the familiar river bottom land—land which will grow anything if given any show at all even in the worst of years.



Paddock, Barns and Stables on Mr. Robert Kelly's Farm.

had been rented for years by Chinamen, and the buildings were no good. I tore every one of them down and burnt the stuff

cattle, but we are culling them out, and hope to have none but payers soon," said Mr. Kelly.

A Beautiful Place.

The Kelly farm, besides possessing the potentialities which will make it a great producer, is a beautiful place. The wisdom of the owner prevented the destruction of several lovely park-like clusters of trees, which, besides adding to the beauty of the farm, provide ideal shelters in which the cattle, hogs and sheep fairly revel in the

convenient means of feeding. Stationery buckets opposite each animal are also in place and are fed with water automatically.

Adjoining the cow stable storage is provided for roots of various kinds, and in connection with these rooms are the engine-room, containing a powerful little electric plant, which provides power for operating a grain crusher, a root grinder and a pump-

The horse barn provides stabling for about 30 head of horses, and an ample supply of feed. The place is finished inside with planed and painted boards, and provides no corners or crevices for the accumulation of dirt, and here, as everywhere else about the place, are seen the evidences of the owners' determination that everything shall be kept spotlessly clean. This same description applies to the hog pens and the chicken runs.

A Splendid Record.

Mr. Kelly is of the opinion that he has the best chicken man in British Columbia in charge of his chickens, and from the record made by him this year, which is his first in the establishment, there seems to be good ground for the opinion. His name is Harry Scott, and he received his training in the old land.

"We have 1300 hens now," said Mr. Kelly, and next year we will have 5000. They look to me like payers and I am going to give them a good trial."

Mr. Scott started in with 150 hens, 12 of the Barred Rocks, 12 White Wyandottes, and the balance Leghorns, and from March 7th until October 31st. the flock laid 28,170 eggs, or an average for the eight months of 190 eggs per hen. This is a record that would be very hard to beat. The old hens are moulting now, and may not do much for a while, but there remains four months of the year yet, and Mr. Scott is of the opinion that he will be able to get a great deal out of the old hens yet, and is in hopes he will be able to break even the test records. During the spring the incubators were used industriously, and the flock now numbers 1300. Most of the chickens came in May, and a good many of them are now laying. The flock consists of almost equal numbers of Rhode Island Reds, White Wyandottes, Barred Rocks and Leghorns.

The birds are kept in flocks of about 50—oo large many experts would say—but the pens are large, bright and airy and the most painstaking care is paid to keep-



Interior of Cow Stables, showing the Milking Machines in Operation.

hot summer weather. The Nickomekl River, a beautiful little stream, perhaps 50 feet wide, runs across the farm, and provides splendid natural drainage, which is assisted by a perfect system of tile drainage, on which thousands of dollars have been expended during the past two years. In addition to this are several large open drains. These were on the place when Mr. Kelly bought, and are pronounced by him nothing more than an eyesore. He expresses the intention of cleaning them, putting box drains in the bottom, and filling them in. There is no question such action would add very materially to the appearance and to the cultivable area of the place. Whether the boxed-in drain would provide as good drainage is another question. Mr. Kelly is, however, of the opinion that with such a system of underdrainage as he has, all leading to the boxes and the river, there need be no fear on that score.

The Buildings.

Like everything else on the place, the home of the owner is a model—chaste in design and laid out with special attention to comfort and convenience. There is also a lovely little bungalow for the foreman, besides convenient quarters for the men, who at present number 14.

The most important building on the farm, and the one which would attract the most attention, is the cow stable. There is accommodation in it for 70 head of cows, and they are nurtured everyone in the lap of comfort and cleanliness and light. Every fixture about the place is of iron, all carefully painted with oxide, and kept spotlessly clean at all times. The floors and feed troughs are of concrete and every morning as regularly as clockwork they are all washed down with the hose, and once a week every stanchion is gone over with hot water. Feed carriers on overhead tracks are arranged, and provide

ing plant which pumps the water from a couple of artesian wells conveniently located, into a big tank. An air pump maintains a steady air pressure on this tank and provides the force which drives this water through pipes to every building on the farm where water is required. In the home, the cow stable, the horse barns, the hog pens, the chicken runs, this water is always obtainable by the simple turning of a tap, and the pressure is almost always



Another View of Cow Stables. Notice the Sanitary Equipment.

equally as good as is usually to be had in any modern city waterworks system. This little electric motor also provides the power for operating the mechanical milker which is used on this farm.

ing them perfectly clean, and the splendid health of every bird in the flock and their ability to produce is ample testimony to the correctness of the keeper's plan, for him at any rate. Turkeys, ducks and geese

Xmas. Diamonds

Bring more happiness than any other gift. Our showing this year is better than ever. Our low prices, along with our fair dealing has gained us the enviable reputation of being Vancouver's Leading Diamond House. If unable to visit our store

Send in for your Xmas. Diamond.

We specialize in Single Stone Diamond Rings at \$20.00, \$25.00, \$50.00, \$75.00 and \$100.00.

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413 Hastings West

Christmas Shoppers Visit OWL Stores

It is always worth while to drop into an OWL store, when in town, but during the Xmas Season it is specially interesting.

If you are unable to call on us you can depend upon our careful and prompt attention to **MAIL ORDERS.**

Are you thinking of Parisian Ivoryware, Perfumes, Brushes, Thermos Bottles, Christmas Stationery, Dressing Cases, Razors, Sterno Stoves, etc.? All OWL stores carry a complete assortment of these goods.

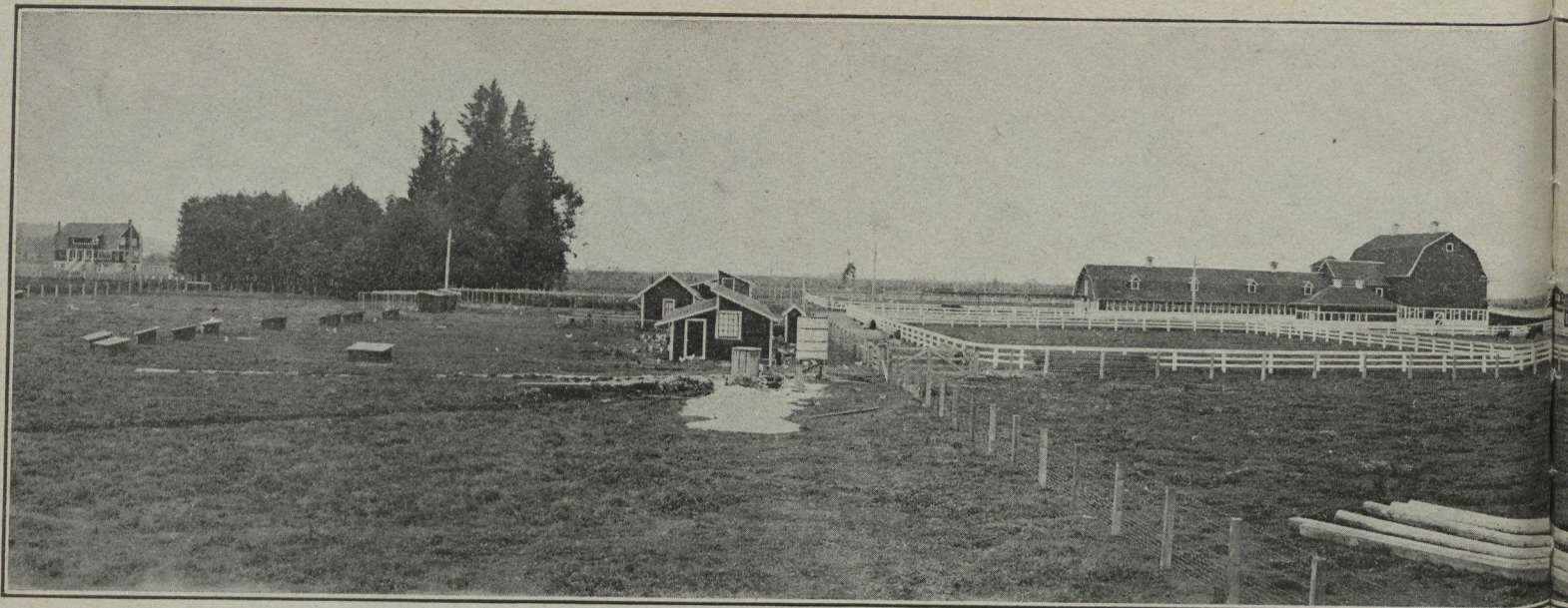
Our great aim is to give absolute satisfaction to our customers. Our motto is "The Most of the Best for the Least," and we might add "in the quickest possible time."

Main and Hastings.
Hastings and Abbott.



Granville and Dunsmuir.
Cordova and Abbott.

Powell and Dunlevy.



Panoramic View of Mr. Robert Kelly's Farm.

are kept in limited numbers, and good success is being had with them. Most farmers in this country say that turkeys cannot be raised on the flat land, but Mr. Scott says he hasn't lost a bird this summer, and everyone is now in the best of health. The flock only numbers 29, but will be increased. The ducks live under ideal conditions for them, the river providing an unequalled swimming pond, and as an evidence of the power of habit, the ducks are never seen

about the place during the day, but as regularly as 5 o'clock comes they may be seen stringing across the field to the feeding troughs, then to the pens where they spend the night.

Good Bunch of Pigs.

Mr. Kelly is strong in the belief that there is big money in pigs, and at present has about 100 head of fine young stock. He has also 12 brood sows, half of which

are at present taking care of litters ranging from six to twelve little grunTERS.

The Cattle.

The stock of cattle now comprises 153 head, 70 of which are milk cows. Fifty of these are milking now, and quite a number of others are almost ready to come in. The balance are young stock, mostly heifers. A fine new barn has recently been finished, in which the young stock are taken

After Christmas It Is Not Long Till Spring

when you will be planting your Garden or Orchard. NOW is the time to be thinking and planning what you will plant. Don't leave it too late, but give us the opportunity NOW of making a few suggestions.

IN SMALL FRUITS THE STRAWBERRY comes among the very first. We have the newest and very best varieties, as follows:

DR. BURRILL—Mid-season. Called "The Million Dollar Berry."

MAGIC GEM—Mid-season to late.

KELLOGG'S PRIZE—The berry without a fault.

HELEN DAVIS—Early, fruit large and very fine quality.

GOODELL—Originated on Pacific Coast—succeeds anywhere.

MAGOON—The greatest commercial berry known.

We have fine plants of all the above varieties.

CURRENTS, in all leading varieties, including Fay's, Victoria, Black Naples, etc.

GOOSEBERRIES—Oregon Champion, the mildew-proof and money-making variety.

RASPBERRIES—Cuthbert, S. Regis, and other leading kinds.

LOGAN BERRIES—One of the best investments we know of. Canning and juice making are coming industries in B.C.

The above and many other specialties are growing at our Nurseries at Sardis, near Chilliwack, B. C., and form just a part of our full line of CHOICE FRUIT TREES, SHRUBS, ROSES AND ORNAMENTALS.

Do not fail to write us about your needs, and **do it now**.

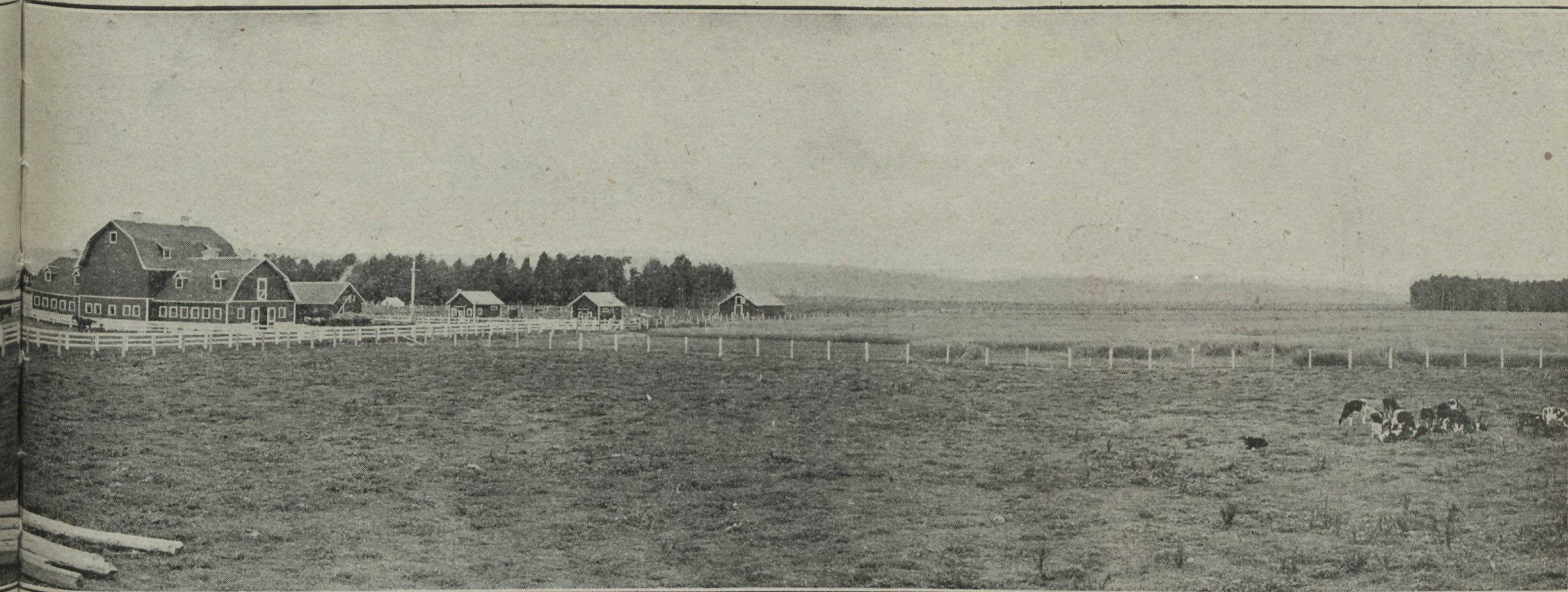
Our large descriptive Catalogue is at your service, also our artistic and exclusive Rose Catalogue—either or both sent by return mail, as we want your order EARLY. We can do the fullest justice to orders sent in AT ONCE. Your trees are then reserved in good time.

We can at all times find room for the right kind of man to represent us in the sale of our well-known "QUALITY" trees. Write for particulars.

BRITISH COLUMBIA NURSERIES CO., LTD.

1493 SEVENTH AVENUE WEST.

VANCOUVER, B. C.



Panoramic View of Mr. Robert Kelly's Farm.

care of. There is accommodation for nearly double the number of animals at present kept, but the enterprising owner hopes before long to have his stables filled to capacity.

The horse stables contain 17 work horses and 12 head of young stock. An experiment is being tried with 10 head of sheep.

What the Farm Has Produced.

At the present time 350 acres of the 500-acre farm is under cultivation. An extra

75 acres will be brought in next spring, and it is hoped during the summer to prepare the whole of the balance for a crop. This year 75 acres was planted to oats, which yielded 1500 sacks. Twelve acres of wheat produced 215 sacks of excellent grain, and 25 acres produced 525 sacks of barley. One thousand sacks of onions were produced on three acres, while 18 acres yielded 3500 sacks of potatoes. Three hundred tons of mangels were raised on six acres. Turnips were a poor crop this year,

but 75 tons were secured from five acres. Another 10 acres produced 200 tons of ensilage, and this is stored in an up-to-date silo. The farm is at present in charge of Mr. A. E. Sherritt, to whom must be given credit for much of what has been accomplished on this splendid farm during the past two years.

In closing it may be said that Mr. Reginald Arkell, cashier with Kelly-Douglas is responsible for the plans of all the buildings on the Kelly farm.

The Vernon Fruit Co., Ltd.

1908

1916

Greetings for 1917

The Old Reliable Company
That has always made good.

REMEMBER

We are a British Columbia Company. The only company in Western Canada that never handles foreign goods in competition with

British Columbia

Make your arrangements this winter for the marketing of your next season's crop with

The Vernon Fruit Co., Ltd.

Head Distributing Office,
CALGARY, ALTA.



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Strawberries

to

Apples

British Columbia Fruits Excel
in Flavor and Quality.

B. C. APPLES

have won the highest awards the world over.

B. C. APPLES are being shipped to different Provinces of the Dominion of Canada, to Great Britain, South Africa, Argentina, New Zealand, Australia, Fiji and China.

THE B. C. APPLE production is increasing rapidly.

Your hearty co-operation is solicited in fostering and building up this great industry. You can do your "bit" by buying only B. C. APPLES.

The B. C. Fruit Growers extend you the
Season's Greetings.



The Department of Agriculture

(Horticultural Branch)

Victoria, B. C.

303 Bank of Ottawa Bldg.,
Vancouver, B. C.

Okanagan Leads in Fruit Production

Okanagan Valley Produces Nearly Three Fourths of Fruit of Province---Agricultural Statistics.

The tenth annual report of the provincial department of agriculture is a voluminous document of 145 pages, but it contains a good deal of reading matter of more than ordinary interest to the farmer. In addition it includes a large number of agricultural statistical reports showing the crop productions of the province during the years 1913, 1914 and 1915.

In fruit production the province is steadily going ahead. Take apples for instance: The production of the province in 1913 was 847.1 cars, of which the Okanagan and Boundary produced 670.5, the East and West Kootenay 61.1, the Thompson watershed 65.5, the Lower Mainland 17, and Vancouver Island 33. As the fruit production of the Boundary district is practically limited to Grand Forks and Keremeos (the Similkameen being for this purpose included in the Boundary) it can be seen that the term "Okanagan and Boundary" means about nine-tenths Okanagan and one-tenth Boundary, insofar as production is concerned.

In 1914 the apple production of the province totalled 1,141.4 cars, a gain of about 300 cars over the previous year. The Okanagan and Boundary contributed 899.7, being nearly ten-elevenths of the provincial total. The next district in the list was the Thompson watershed (being the Kamloops section) with 100 cars. East and West Kootenay provided 70 cars:

Sixteen Hundred Cars of Fruit.

There was a remarkable increase for 1915 and the Okanagan Valley naturally easily retained premier place. The 1915 apple total for the province was 1,638.5 cars, a gain of about 500 cars over 1914. Of this total 1390.1 cars came from the Okanagan and Boundary, leaving a little over 200 cars for the remainder of the province. The "Okanagan and Boundary" total, approximately 1150 cars, were produced in the valley and the remainder in the Boundary.

The apricot production of the province was approximately 15 cars in 1913, 41 cars in 1914 and 67 cars in 1915. All of it came from the Okanagan and Boundary less than a car being produced in the Kootenays.

The 1913 cherry production was 16 1-2 cars, with 31 1-2 cars in the following years and 36 in 1915. Of this total the Okanagan and Boundary provided 10 1-2, 21 and 27 respectively in the years named.

The peach production in 1913 was 120 cars, with 113 in 1914 and 142 1-2 in 1915. Practically the entire peach crop was raised in the Okanagan, which gave 119, 112 1-2 and 141 cars in the years named.

This district also easily led the province in pears, giving 17 cars in 1913, 39 in 1914 and 55 in 1915. The provincial totals for those years were 24 1-2, 48 and 71 cars.

In plums and prunes a similar situation is revealed, as follows: 1913 whole province 139 cars, with 115 of them from this district; 1914, whole province, 200 cars, of which 171 were from the valley; 1915, 238 1-2 from the province, with 194 of them from the Okanagan and Boundary.

The raspberry production for the three years for the province ran 43, 37 and 45 cars respectively and the strawberries 66, 136 and 91, the black berries being 13, 10 and 12 for 1913, 1914 and 1915. Other small fruits were 4 1-2, 15 and 16. The Okanagan and Boundary did not figure largely in the small fruit totals, the small fruits mostly coming from the Island, Lower Mainland and Kootenays.

The grand totals of car production of all fruits enumerated were: 1913, 1,290; 1914, 1,774; 1915, 2,360. The big shares from the Okanagan and Boundary were 1913, 956; 1914, 1303 1-2; 1915, 1883 1-2. Thus in 1913 the Okanagan and Boundary produced almost 75 per cent. of the total fruit of the province; in 1914 it produced 76 1-2 per cent., and in 1915 it produced 79 per cent., thus showing a steady increase. The Okanagan Valley alone, leaving out the Boundary, in 1915 produced between 70 and 75 per cent. of the fruit grown in B. C.

The following figures show the tonnage of the 1915 fruit crop and the value given to it:

	Quantity.	Value.
Apples	18,444	\$883,595
Crabs	1,219	60,928
Pears	857	52,182
Plums and prunes ...	2,384	115,607
Peaches	1,425	79,689
Apricots	675	36,835
Cherries	361	50,128
Strawberries	938	194,977
Raspberries	461	113,329
Blackberries	122	27,293
Bush fruits	128	21,772
Loganberries	31	5,965
Totals	27,045	\$1,642,300

Agricultural Production.

The value of British Columbia agricultural production for 1913, 1914 and 1915 are as follows:

Live stock	\$ 8,797,875	\$ 8,123,359	\$ 6,004,423
Meat products	1,864,673	1,211,600	1,083,572
Poultry and eggs	1,464,720	2,410,022	2,430,350
Dairy products	3,034,340	2,012,000	2,593,404
Fruits (including canned)	1,642,300	996,071	1,120,268
Vegetables (including canned, etc)	3,063,092	3,233,542	3,096,339
Fodders (hay and straw, kale, etc)	5,899,283	6,578,039	5,999,764
Grain (whole)	3,626,330	2,770,985	1,844,704
Miscellaneous (honey, hops, etc.)	232,208	389,278	638,727
Indians	1,502,980	1,459,204	1,370,434
Grand total	\$31,127,801	\$30,184,100	\$26,222,033

The number of live stock for 1914 and 1915 are:

	1914	Value.	1915.	Value.
Horses	59,987	\$ 7,858,297	62,000	\$ 8,680,000
Beef cattle	165,579	10,597,056	165,000	10,725,000
Dairy	81,063	6,403,977	81,000	6,480,000
Sheep	27,529	239,227	40,000	350,000
Swine	39,706	499,501	36,500	465,375
Totals	373,864	\$25,598,058	384,500	\$26,700,375

MR. FRUIT SHIPPER:

Do you know that SWARTZ BROTHERS, 155 Water Street, Vancouver, B.C., sell more fruit for the British Columbia Farmer than any other commission house in Vancouver, B. C.

WHY?

Because it is the home product that the people want. We aim to please our customers and help the B. C. Farmers.

We guarantee returns thirty-six hours after goods are sold.

Give us a trial with your next shipment of fruit and be convinced.

Our commission is 15 p.c. on all goods except on hot house stock.

Write for particulars.

SWARTZ BROS.



Mother Says


those horrid lamps seem to smell worse than ever I clean six of them twice a week which makes 1248 every year - two weeks awful work to keep them going out of each year!

LET'S HAVE MOORE LIGHT!

Yes, Mother knows they give real comfort and cleanliness they are most attractive in design; they will make your parlor dining room or kitchen as bright at night as sunlight during the day. Two light plant complete delivered free to your station \$38.25 and you can add lights for other rooms as you want to.

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GASOLINE LIGHTING SYSTEM
 OF ALL STYLES



Glassware supplies and mantles to fit any system
 Generator fixtures
 Catalogue and particulars
ROBERT M. MOORE & CO.
 VANCOUVER SEATTLE REGINA

A Breeder's Card this size will cost only \$1.25 per month. Advertise the stock you may wish to sell.

TOUGH MEAT

Adding a sprinkle of vinegar to the water helps to make tough meat or chicken tender which it to be served boiled. Old hens may be made quite palatable by steaming them all day. Afterwards they may be served as they are, or baked for a while in a hot oven.

Would Rather Work Out Than Rust Out

Wealthy Interior Rancher Tackles Big Problems in His Old Age.

At the age of 63 years, after a life of hard and grinding toil, William R. Austin, at present one of the biggest ranchers in the British Columbia interior, made a "clean-up" which netted him a fortune of \$275,000. At his age one would have thought that he would have been content to settle down and, with the companion of all his toils, enjoy the rest and comfort he had so well earned, and which such a fortune could easily give him.

But this wasn't his style. He had dreams of great things he could do with the money he had gained. He could not lie down when there was so much to do.

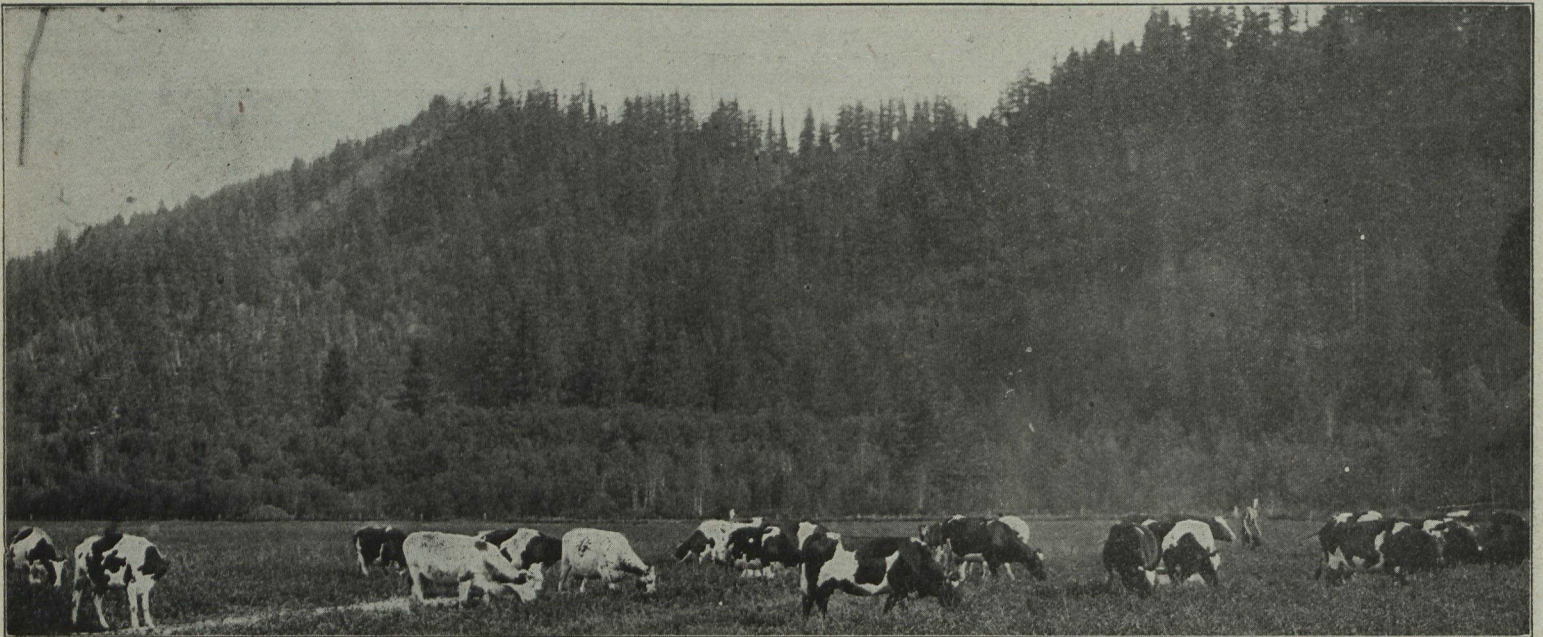
700 acres of the river bottom land, besides the Burquitlam ranch.

He had 70 acres cleared on the Burquitlam farm. It was a lovely place. It caught the eye of the members of the British Columbia Golf Club and they offered him \$65,000 for it. He accepted and the deal was completed. Later he sold his Pitt Meadow land to the C. P. R. for their freight terminals at Coquitlam, receiving for it \$200,000.

Trying to Realize His Visions.

It was then that he commenced to think that his visions of the years might be real-

scene of his great experiment. He bought 2600 acres of land on the North Thompson. He selected partially improved ranches, some of which had been cultivated for many years. The first, which is called the Home Ranch, is situated seven miles north of Kamloops, and consists of 490 acres, all bottom land. On this place Mr. Austin makes his home. Next to this is the old Anderson farm, on which his son-in-law, Mr. E. J. Webb, lives. Both these places are partially irrigated with a gravity system. The main pipe has been put in and the laterals are now being laid. Next to this place is the Edwards Ranch, a place



Thoroughbred Cows at Experimental Farm, Agassiz.

"When men stop work when there is still plenty of work in them, the Lord usually takes them at their word, and they quit for good," was his trite way of putting it.

"As long as I am able I want to keep doing something."

It was away back more than 35 years ago that William R. Austin came to the old town of New Westminster and with his young wife settled there. It was a lively little town even then, and for a time he did well in a flour and feed business.

It was land he wanted, however, and it was not many months before he had decided to homestead. The heights back of New Westminster were chosen as his future home, and just 28 years ago, after spending three days in hewing a pathway to his corner stake he commenced his clearing. Everyone knows what it means to clear the greater portion of the highlands of the coast districts, and the Austin homestead was no exception. It was the heaviest kind of clearing. His heart was stout, and he labored away. He made money, and as the years passed, added to his holdings. His later purchases were the flat lands of the Pitt Meadows, and when the land boom struck the west, seven or eight years ago, he was the possessor of

ized. His opportunity had come. What could he not do with all that money? He knew the interior, and believed in its great possibilities. His scheme involved the purchase of a big block and the turning of the rich bottom into thorough cultivation; he would construct a complete irrigation system; he would stock the places, and when that was done, and he had demonstrated beyond a doubt what could be done, he would put the land on the market in 25 and 40 acre blocks.

"I know what can be done with land, and I want to show the people," he said.

He saw the settlers teeming in to the land he had prepared for them. He saw them prospering, and as a result of his enterprise, and the demonstration he had made of what could be accomplished, he saw thousands of others flock into the great and fertile valleys of the great interior.

This was his vision. The immensity of the undertaking; the tremendous amount of work it entailed, and the great responsibility he was assuming did not daunt him. He gripped it all with an enthusiasm and energy worthy of a man half his age.

The Place Selected.

Kamloops was the place selected as the

of 550 acres. This ranch has been in operation for over 40 years, and it is said that the former owner has the distinction of having raised the first crop of alfalfa ever raised in the interior. It is nearly 40 years since Edwards planted his first alfalfa, and every year under irrigation this place has, without intermission, grown crops of alfalfa of not less than five tons to the acre, made into hay, besides a third growth of 30 inches for late pasture. Digging at the foot of a cut bank in that field, roots are found 30 feet below the surface, and they probably go much deeper.

This place is situated at Heffley Lake, and there Mr. Austin has built a creamery in connection with a barn to accommodate 54 head of cows. The creamery serves too for a market for cream for 40 miles around. Here, too, is situated the post-office, the store, hotel and blacksmith shop. This place is just 18 miles from Kamloops and is a beautiful ranch.

Just north of Heffley were a number of small ranches, amounting together to about 650 acres, which Mr. Austin bought up. Then eight miles north of Heffley is the Josephine ranch. This is a magnificent farm of 350 acres. At this place Mr. Austin has installed a pumping plant to pump

water from the Thompson for irrigation, as water is not available above the ranch.

Irrigation Not Essential.

In none of this country is irrigation absolutely essential. Good crops can be grown in almost any year, but the increase in the production with irrigation is so wonderful that all agree that no farmer can afford to be without the water. Crops are double not only one year, but year after year without intermission. A crop failure in this section on an irrigated farm is practically unknown, and the abundance of forage eliminates all anxiety as to winter forage.

Besides these properties, Mr. Austin owns 320 acres of dry land south of Kamloops, and has secured several thousand acres of grazing land, some of it deeded and some of it leased, and is now about ready to put his great scheme into execution. Each of these 50-acre farms he figures will support at least 25 heads of cows, together with hogs, sheep and hens, and with the range land which can easily be secured at a merely nominal figure, the owner of one of these places could handle besides a large number of young stock.

The Austin farms are now stocked with about 600 head of cattle, 100 head of sheep, besides a large number of hogs. Each place is in charge of a foreman, and is equipped with all necessary horses and implements. The whole equipment with the land has cost in the neighborhood of \$275,000.

Will It Pay?

Will it be successful? Will the vision be realized? This optimist has every confidence that it will. The war temporarily disarranged his great settlement plan, but it gave him more time to get ready. For 50 miles up both sides of the North Thompson from Kamloops there is flat land from one quarter to a mile wide, which when irrigated will become the richest land in the world, and will provide homes for thousands of people. Back of this there are thousands of acres of range land—room for millions of head of stock.

The climate is ideal. Hot days in July are tempered by gentle breezes, cool evenings and restful nights. The dryness of the atmosphere and the freedom from boisterous winds robs the three months of winter of discomfort and enables the heavy work of hauling logs to be performed with comparative ease on the dry snow. Beef cattle and sheep are never housed, and dairy cattle need only the most primitive shelter.

The conclusion of the war is bound to bring a steady influx of settlers to this country. This province will get her share. W. R. Austin is ready. His big settlement scheme in the great North Thompson will meet with the success it deserves, and he will live to see the hundreds teeming in as he dreamed they would.

His wife still lives. He has two daughters and one son, John W. Austin, who runs the creamery at Heffley.

J. E. Lawrence of Kamloops, an Englishman of wide experience, looks after his office in that place. He has lived there for over 14 years. He is a student of agriculture and knows interior conditions as perhaps few men in British Columbia do.

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Vol. VIII. DECEMBER No. 12

EDITORIAL

THE SEASON'S GREETINGS

In those remote days now seemingly so distant before khaki was a prevailing shade, and when war belonged to history and had no part in the affairs of our modern life, this greeting to our readers would have been couched in conventional language bespeaking for all our family of readers a "Merry Christmas and a Happy New Year." It has been our privilege for some years to voice heartily this wish.

This year we shall not do so. The phrase dies on the lips before it is uttered, and the pen refuses to indite words which we fear would be to many mere mockery. All our British peoples are grimly engaged in a task which does not permit merriment, and in which there seems little place even for happiness. The trenches which scar the fair face of France cross sea and prairie and mountain as well, and cut through almost every household in British Columbia. The daily tragedies in these trenches are repeated in lonely homes in our mountains, in the bungalows which smile down on the surface of Okanagan Lake, and in a thousand city and suburban apartments and cottages. In all of these there is at least one who anxiously

"Bows her graceful head
Above each chronicle of pain,
And trembles with an inward dread
Lest there amid the lost or slain
She find the one beloved name."

The wounds of the war are not all being tended in rest station and in hospital. Some of the most grievous and mortal are seen by few and often scarcely suspected at all.

Remembering these things, the editor refrains from the old hearty greeting, and instead offers to all our brave people the wish that the war may spare them their dear ones, and that whatever befall they may at least have the comforting sense of responsibility fairly met and assumed and of duty fully done.

PROSPEROUS PURCHASERS

In another column more extended reference is made to the high prices which have prevailed this year among the farmers of British Columbia, and to the concurrent conditions in the way of good harvests and other factors which have made the farmers the most prosperous class in the province of British Columbia today.

With these happy conditions has come the ability to satisfy demands of all kinds for better clothing, for farm machinery,

for rarer kinds of food, for the little supplementary things which hover near the border line between comfort and luxury.

That these conditions are appreciated by some of our largest traders is evidenced in the present number of "Fruit and Farm," one of the largest we have ever published, and the most liberally patronized by our advertisers. The reason is apparent in the fact that the farmer is frequently a mail order buyer, and that where he is not he visits the coast two or three times a year and patronizes the stores which have taken the pains to make his acquaintance through printers' ink. When, in addition, as in the present instance, he has ample means to more than satisfy all his needs, the wise merchant overlooks no opportunity to get in touch with him and cry his wares in the hearing of the farmer and his wife.

This journal takes pride in calling attention to these advertisers. They are the leaders in their lines, and goods bought from firms who use "Fruit and Farm" represent we think in every instance the best products in their line. There is a great field for our merchants to exploit in the prosperous homes of the province, and there is no medium of communication between the merchant and those homes which approaches in value or comprehensiveness the columns of this magazine.

If our readers in replying to advertisements will mention that they read these announcements in the columns of this journal they will confer still another favor on its publishers.

THE FARMERS' UNION

The scarcity of labor on the land may have been partially responsible for the organization in Duncan a few weeks ago of the Farmers' Union, details of which are dealt with in another column. That the Union will demand a relaxation of immigration conditions to permit more laborers to enter seems to be assured; that they will ask for the admission of Orientals is neither likely nor desirable. The first will bring them into conflict with the labor organizations, but the latter would align them against all the better interests of the country.

The movement is not a local one, and its other objects are sufficiently comprehensive and important to warrant the decision of the committee to extend its branches throughout Vancouver Island.

RURAL LEADERSHIP

A significant conference was held the other day in Alberta, which might be copied with advantage in this province. It related to rural leadership, and was participated in by several of the cabinet ministers, by leading women workers, by clergymen, and by the most thoughtful students of rural conditions.

Its main purpose was to discover how to make rural life more attractive, and some valuable suggestions were expanded into definite lines of action.

The problem of rural life, we feel convinced, is in the last analysis the problem of the woman. And no study of the woman can be successful which does not recognize her more sensitive and highly organized social instinct. The abandoned homesteads of B. C. have, we think, been abandoned because the woman wearied of this monotony. The only way to cure that monotony is to provide the social atmosphere without

which all the finer susceptibilities of women pine and die.

An illustration may be cited from Northern British Columbia—an incident of the past summer. A homesteader who had but a few months to complete his pre-emption came into a northern town and listed his property for sale at a song. His wife, a cultured and refined woman, had drooped and faded on the homestead and would remain no longer. Pending the sale she remained in town, took in the shows, dined with congenial people, revived under the more congenial environment and inside a fortnight signified her readiness to return to the homestead, a changed woman. Her social need had been met and satisfied, and it was this deprivation alone which stood between her and complete contentment on the land.

Community life can be developed with a little thought and planning, and avenues created for the satisfaction of those indispensable needs in woman's life which men too infrequently fail to comprehend. If the rancher or farmer realized what a change it would make in his home he would be the first to make provision for it.

Lectures for Horticulturists and Garden Lovers

Horticulturists both amateur and professional have an opportunity before them in the lecture course arranged by the University of British Columbia of adding to their knowledge of the "noble art of gardening." A three weeks' series of lectures on horticulture, beginning January 8, will be given at the University Building, Tenth Avenue and Willow Streets, and such subjects as the nature of soils and the improvement thereof, the growth and care of plants, the outlines of landscape gardening and of home decoration, the growing of small fruits and the best methods of increasing the fertility of the soil, will be discussed and explained by men who are expert in horticulture generally. As there are thousands of people in British Columbia who have gardens, or wish to have them, these lectures and demonstrations ought to have a very wide appeal. The university authorities in arranging the series have done a very popular thing.

DOES IT PAY TO HOLD?

It is doubtful if the widespread notion that the prices of farm products are lowest just at the time of the after-harvest rush of marketing, and that the farmers who are able to hold their crops until later in the year will fare better than the man who has to sell, is correct. The "hold your wheat" cries are most familiar, and numerous efforts have been made in the last few years to organize the growers of other produce to prevent too rapid marketing. A study of market fluctuations does not justify either the advice to farmers to hold or the oft-repeated charges against speculators who are alleged to buy up the surplus when the farmers are compelled to unload and keep it to sell at exorbitant figures later in the season.

A comparison of prices for a series of years of potatoes, hay and apples, made by Dr. Gilbertson of the Department of Agriculture shows that growers often lose much more than they gain by holding these products back from the market. Comparisons were made in butter, eggs and poultry, but it is a matter of common knowledge that buyers who stock up on these commodities when they are most plentiful and put them

in cold storage to supply later demands when production has diminished frequently suffer heavy losses.

The fact that there is some danger in holding on too long to fruit and vegetable produce should be brought to the notice of local growers who have visions of reaping big prices after a wait of another month or two. It may come, but those who are following this course will do well to watch the market conditions very closely. In the matter of potatoes, for instance, the car shortage may affect prices to a very great extent. Potatoes are high now because of a heavy demand from outside markets. Growers in this province cannot get anything like the number of cars they need to fill such orders. Those in a position to say are of the opinion that the condition in regard to the car supply is not going to improve for a long time yet. The railway companies have the cars busy hauling war orders, many of the perishable kind. If potato growers in this province cannot get the means to ship their stuff to the far-away markets, they will have to be sold in the home markets in time, and then prices are coming down. And unhappy indeed will be the lot of the man who has his spuds still pitted or in his cellar, fondly dreaming about potatoes at sixty dollars a ton.

THE PORK QUESTION

Not many of our readers will, we fancy, be disposed to agree with our correspondent, whose article on the above question will be found on another page, when he asserts that the question of raising pork on the prairies "has been thoroughly tested," and that with grain prices as they are now "feeding the porker is out of the question." The writer goes on the assumption that hogs cannot be fattened on any other than a grain ration on the prairie. The fact that some Alberta farmers dropped pork raising to devote themselves entirely to grain, only shows that they were willing to sacrifice the future for the present—big grain prices being the bait.

The following description of a test tried on a Manitoba experimental farm is a rather effective contradiction of the arguments of our friend, and "Fruit and Farm" would be glad to receive and publish the experience of any British Columbia farmer along this or any similar line:

A group of young pigs were fed with a self feeder on pasture this summer. An acre and a half of land was used to grow pasture. It was divided into nine strips which were sown with the following crops: Oats, peas, barley, wheat, spring rye, peas and oats, vetches, sweet clover and rape. The land was old sod land which had been plowed up the previous summer. The seed was sown on May 17. The rye was fit to pasture in a month from the time of sowing, and the other cereals about a week or 10 days later. The pigs were put on the pasture on July 5. By this time the rye was past its best and was heading out, and was consequently not relished much by the pigs. The other cereals were all in the best of condition and were all greatly relished by the pigs; they seemed to eat all about equally readily, though, possibly, the wheat was a little less freely eaten than the oats, barley and peas. The peas stood the least pasturing and were soon killed out. The oats, barley and wheat all stood pasturing well and provided feed un-til well on in August. The rye ripened and the heads were eaten down in August and September. The rape was hardly ready for pasturing when the pigs were turned on;

it would have been in good pasturing condition by July 15. The pigs ate of it lightly while the cereals were in good condition, then, when the latter began to get dry, they went at the rape and obtained a large amount of feed from it. They pastured it rather too severely and killed it out sooner than was desirable. The vetches and sweet clover began to provide pasture about July 25. The vetches were eaten readily but the sweet clover was not eaten while there was anything else available. Neither of these produced as much feed as the cereals or the rape. On the other hand, they continued to grow under pasturing and were the only source of green feed in September and the last of August.

While on this pasture the young pigs had access to a self feeder filled with meal. The mixture used was four parts oat chop, four parts shorts and one part tankage. The self feeder was replenished about every 10 days and the pigs fed themselves. They were kept supplied with water.

The cost of feed used was as follows:

2700 lbs. oats at 34 cents per bushel..	\$27.00
2900 lbs. shorts at \$18 per ton.....	26.10
600 lbs. tankage at \$54 per ton.....	16.20
Use of 1 1-2 acre land	3.00
Working 1 1-2 acre land	10.50
Seed for pasture	2.00
	<hr/>
	\$84.80

Twenty-one pigs made an average gain of 87 pounds from July 5 to September 24. On the basis of the above cost of feed, these gains were made at a cost of \$4.64 per 100 pounds of pork.

The Maximum Yield

of each and every acre is demanded by present conditions. The use of our Chemical Fertilizers will aid you to meet this demand. If you think it over you will see that ten tons of potatoes from one acre is much more profitable than twelve tons from two acres. Our fertilizers will improve the **Quality** of your products as well as the **Quantity**, and thus you have a double advantage. The intelligent use of our fertilizers increases the fertility of the soil from year to year.

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We have a large variety of articles suitable for Men, Women and Children. Men's Dressing Gowns, Gloves, Neckwear, Slippers, Knitted Vests, etc.

Our Jaeger Catalogue will give you valuable information about Men's, Women's and Children's wear and contains ideal suggestions for Gift Making. Women's Dressing Gowns, Slippers, Waists, Gloves, Scarfs, etc. Children's Sweaters, Coats, Bonnets, Booties, Gaiters. Blankets, etc.

We solicit your orders. Please write for catalogue and price list.

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WALNUT TREES

Seven hundred English and Franquette, from 3 feet to 8 feet, 15c to \$1.00 each, as to size. Laburnums from 10c to 50c. Filberts, all sizes and prices. Chilliwack grown seeds in season, berry plants, currants, perennial flowering plants for fall planting. Price list free.

TOMS BROS.

Chilliwack, B. C.

CHILLIWACK

FOR SALE—House and large lot in Chilliwack, "the garden of British Columbia"; seven-room house, electric light, city water, garden full of flowers, fruit and vegetables; five minutes' walk to postoffice and cars; fishing the year round; shooting in season; fifteen swarms of bees in Langstroth hives, producing hundreds of pounds of honey. See owner on the place. M. J. Henry, Chilliwack.

Letters to the Editor.

Interesting Discussion on Current Topics by Local Correspondents.

The Pork Question.

The price of pork has remained firm at \$10.50 for a period of the past 10 months. At this figure the producer of this commodity on the farm should do well, and swell his bank account considerably. However, the price up to the beginning of the period mentioned was more like six to seven cents. Naturally, comes the question, why are the prices up to this splendid figure at the present time. Mainly for the reason, in so far as the Alberta farmer is concerned, because they have gone out of the industry, because, as they claim, they could not make it pay—even at times when markets were down on the grain end. Apparently at present prices feeding the porker is out of the question altogether. Farmers who were feeding formerly one to two hundred head of hogs at the present time do not even feed enough for their home use, or if they have any it is only what they need. With none offering the market naturally remains at a stiff price, and is likely to remain so unless the supply increases. Raising pork has been thoroughly tried out on the prairie provinces. Many of the farmers modernized every requirement, but the stage of development has not yet come when Eastern competition can be met. A year ago considerable of the Coast and Toronto markets received Alberta pork, but not much can be said to be coming this way or going to the East now. The prairie farmer, owing to going in extensively for grain, has not the time to give the attention required to raising pork. He also finds that it is more profitable to market his grain direct. Conditions do not compare with the Eastern farmer nor those of the Central States.

Editorially the Calgary Daily Herald took the farmers to task because they were unwilling to sell around the seven-cent mark, pointing out the fact that farmers of the State of Iowa were becoming positively rich by selling at six and one-half cents. Raising and feeding pork is essentially a business by itself and unless thoroughly understood is in a way profitless. Nor are all districts equal in its production. What applies to the East or the States would mean ruin in the western prairie provinces. In some states pork may be fattened and shipped to market from the alfalfa pasture. This cannot be done in Alberta. The Iowa farmer fattens his porkers from the by-products of steers, which are being prepared for market. The requirements in Alberta are that the farmer must grain-feed his pigs from the weaning stage until they reach the standard weight of 250 pounds. Then, again, Western Canadian local markets will have to be changed considerably to induce the farmer to go extensively into raising pigs. A farmer of the State of Iowa shipped 48 head of hogs to the Chicago market at an average of 428 pounds each, receiving top prices. The same shipment at a Western Canada local market would receive a dockage of two cents. Again referring to the Calgary editorial writer in his reference to the Iowa farmer, he overlooks the fact that these same Iowa farmers were the ones who are in Alberta, but failed to get the desired results.

There is no question that, when the western get-rich-quick fever has subsided, farmers will get down to a more intensive farming basis, and more pork will be raised, but just at present it will be hard to induce them to take it up.

Farm Organizations.

Last month there was no little speculation as to what would be the outcome of the merger of the farmers' organizations of the three prairie provinces—Manitoba, Saskatchewan and Alberta. Apparently at the present the farmers have troubles aplenty figuring how to best get their grain to market at as early a date as possible. Then, too, there is a possibility that the majority of the farmers are a little doubtful as to the ultimate result of the union Farmers, in looking over past experiences, are not so willing to be influenced by schemes of men put forward for their betterment. Twenty years, when it comes to waiting for better market conditions, is a long time to wait for promises to come true . . . and the farmers are still waiting. The farmer does not have to look far back to the time when the Patrons of Industry in Canada had a large membership and were accomplishing results; and how in one round in the political arena completely put that organization out of business, after many years of careful labor had completed its organization. The Farmers' Alliance that had such a strong hold and was such a power in the United States, was snuffed out at the time Gen. Weaver, famous as a greenbacker, ran for the presidency. Both these organizations were for good as schemes for the farmers, but could not stand when politics entered their ranks. It is held by some members of the United Farmers of Alberta and the Grain Growers of Saskatchewan that the present move savors of politics, and that there has long been felt the necessity of a third party. Thus, is the farmer buffeted from pillar to post, and he has yet to find that relief which will give him the desired results, so that he may market grain and live stock, or whatever produced, at a profit. That an organization purely protective for the man who is following farming as a "business" is bound to come about is undoubted, as the farmer is entitled to the same position as other manufacturers. That a third political party does not meet with favor can be recalled when R. L. Richardson of the Winnipeg Tribune came out a few years ago, but was rejected by the people. Again the scheme for the merger of the three farmers' organizations it may be said is due to the fact that it is necessary in order to keep the broken ends together, as many of the local unions barely had members enough to hold their meetings. Farmers are slow at organization for protection, owing to lack of time, and because they are, in most cases, not closely in touch with one another. The advent of rural telephones and automobiles are means of bringing them into closer relation, and they will now be able to discuss to advantage better methods. At present farmers are keen to form into a body and are only waiting for those from their own ranks who have ability to take the initial step. Such a move is on now. The outcome will be awaited with much interest.

Producer vs. Consumer.

Bringing the consumer into closer relation with producer is a problem given much discussion, and at present the high cost of foodstuffs is a daily topic. Insofar as the consumer is concerned, the outcome is problematical, and the farmer who makes it a business to "manufacture" foodstuffs is ever up against the better market as existing between purchaser and seller.

At present the farmer receives as a revenue for his products one-third, and two-thirds are required to bring it to the place of consumption. To verify this, let the consumer take time to go directly to the farmer, and it will be found that products can be purchased at about the above ratio.

For obvious reasons the farmer must, under present conditions, sell his produce. He ships, or hauls his grain direct to the elevator, or if it be fruit to the fruit packers, there he receives the price, according to the claims made; mainly what the companies fix as a margin for a fixed profit. The farmer in no instance is able to set a price. He must accept what is offered on the market or return home with his load of produce. Imagine a manufacturer of flour, or any other commodity, shipping a finished article to a market and receiving the price offered by the consumer.

It should be plainly seen where the high cost comes. Not at any rate from the farmer, who has every right to receive the cost of production with a profit, the same as any other manufacturer, for the latter term can be applied to the farmer in every sense.

Through the co-operative movement among the farmers coming into better working order, both the farmer and the consumer should benefit materially, as from these centres will be shipped direct to the consumer. Just which of the provinces lead in the co-operative stores is not at present shown, but those established are successful.—Bender.

FARMS WANTED.

Wanted to hear from owner of good farm for sale.

NORTHWESTERN BUSINESS AGENCY
Minneapolis, Minn.

A Farmer's Proposition

The most valuable thing about a farm is the farmer himself—and how often we come across farmers who will insure their stock, barns and homes and neglect to insure their own life, allowing their family to carry the risk. Is it business or fair to those most dear to you?

Write or call for booklet discussing "A Farming Man's Proposition," free upon request.

Investigate the Mutual Feature of
The Mutual Life of Canada

WILLIAM J. TWISS,

District Manager

473 Granville St., Vancouver, B. C.

A Believer in Small Holdings

Member for South Vancouver in New Legislature Suggests that Settlers Be Assisted to Get On Two-acre Crown Land Holdings in Burnaby.

Many men in many places in this country on small pieces of land ranging from a half acre to perhaps five acres, situated adjacent to good towns, are accomplishing great things, and the feeling is becoming more prevalent every day that greater encouragement, even assistance, should be given to persons desiring to embark in farming in a small way. It is not argued that it would be advisable for everyone making such a start to drop their other employment and go in for the gardening, chicken raising or fruit raising entirely. In many cases it might be better at first to take it up as a sideline, until the business was thoroughly learned and the experimenter had definitely established what he was going to be able to accomplish.

Hundreds of men have done this. In their spare moments, with the assistance of their wives or the children, they have been able to add wonderfully to their incomes, and frequently have let go everything else and confined themselves entirely to the garden.

The writer has in mind one man, a carpenter, who on a half acre close to Vancouver, with a cow, a few chickens, a little fruit and garden truck, is able to add over \$250 a year to his income. Another man with an acre, who is not so steadily employed, and is able to give his place greater attention, makes every year better than \$500.

An Enthusiastic Advocate.

Perhaps one of the most enthusiastic advocates of the small holding for the man residing near a good town is Mr. J. W. Weart, the recently-elected member for South Vancouver for the Provincial Legislature. Mr. Weart was for many years a resident of the municipality of Burnaby. He was reeve of that district for two years. He was one of the first settlers to become a resident on what are now known as the Burnaby small holdings, which comprise 64 plots, being a part of the portion of the residence district of Burnaby which is now known as Central Park, and was the first attempt of the British Columbia government, twenty years ago, in small holding settlements, a scheme which has proved highly satisfactory.

Some few years later Mr. Weart, then a resident of Central Park, prevailed upon the government to subdivide District Lot 99 into small holdings, which was done, and which district now forms one of the most populous centres in the municipality.

"What were the advantages which accrued to the settlers through this plan?" Mr. Weart was asked.

"In the first place," he replied, "they secured a specially low rate of transportation from the B. C. Electric to either Vancouver or New Westminster. In the second place they had the advantage of being close to a market where surplus pro-


duce could be marketed at the minimum of cost. Third, they had the advantage of close settlement from a social standpoint, with every facility and convenience of the city. In the fourth place, they had the opportunity of obtaining a home ideally situated on long term payments, thereby establishing a permanent citizenship."

"Within the corporate limits of Burnaby," continued Mr. Weart, "there are several blocks of Crown land. Part of District Lot 151, comprising 204 acres, known as Central Park, has been and is reserved for park purposes; D. L. 84, comprising 173 acres, is now used as a prison farm and is being rapidly brought into cultivation; D. L. 114, 108 acres, is considered more or less of a military reserve; D. L. 141, 130 acres, is not suitable for agricultural purposes, but the south portion, comprising 154 acres, could all be considered as more or less adapted for garden truck, fruit and poultry raising, being adjacent to the city and close to excellent transportation, electric car service and good roads, and within the area of Burnaby's splendid water system."

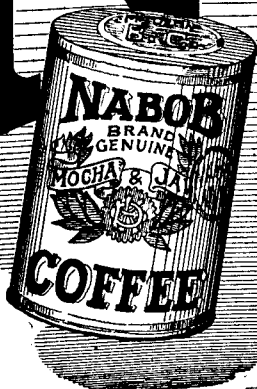
Two-acre Holdings.

"This 460 acres could be cut into small holdings of two acres each. After allowing for roadways, school site and a small park, there would be some 200 holdings and my suggestion is that at least 200 families could be comfortably located on

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High quality makes Nabob Products popular in thousands of British Columbia homes.

Just a mention of a few of this healthy, flourishing family — Nabob Coffee—Nabob Tea—Nabob Baking Powder — Nabob Extracts—Nabob Spices—Nabob Jelly Powder, etc., etc.

these blocks. The opening of the roads, clearing one acre of each block ready for the plough, and providing such conveniences as a new settlement of this kind would demand, should be done by the government. The total cost of this, added to an upset value on the land—assessed value—would be the price the settler would have to pay, and by payments spread over a term of 36 years, the settler would have no difficulty in acquiring his home without any further monetary assistance.

"Returned soldiers, I would suggest, should be given the first opportunity to settle on these lands; next, men of families. Every safeguard surrounding the title should be provided, so that the home would not only be in the joint names of the husband and wife, but could not be sold under execution."

In conclusion, Mr. Weart, speaking of the benefits to be derived from such a settlement scheme, said: "Burnaby as a municipality would benefit by bringing the vacant Crown lands into tax producing lands; the province would benefit at least to the extent of this contented and prosperous community, and every dollar's worth of surplus produce raised would at least reduce the vast expenditure for farm products at present being sent to other countries."

ELECTRICITY AS A POWER FOR THE FARM

Without doubt, the greatest agency in modern commercial life is electricity. No such advances in the quantity of output could have taken place without the electric motor and electric light. The elec-

tric current has served to make a man's time more valuable.

The province of electricity as power has not been confined to the workshop, but in recent years farmers have seized it in order to increase their profits, but cutting down the labor bill, which always was a large item on the farm. Not only that, but electricity has taken the drudgery away from farm life and made those farms which are lucky enough to be near power lines on a par with the most modern houses of the city.

Electricity in the farm home and barn brings safety, comfort, convenience and an enlarged opportunity for the farmer and his family to acquire some of these things which make life more worth while living in general, and which in particular permit of a better development of the individual mind. Electric light gives an opportunity for developing the mentality of the farmer in a way that is not generally appreciated. Electric power enables him to be independent of the limitations of hired help, and to make his land infinitely more profitable.

The actual installation of electric power on the farm is easy, once the wires are run from the nearest power line. As the pole line to the farm cannot be expected to be paid for out of the low power charges, a company generally asks a farmer—or, better still, a group of farmers—to erect the poles themselves and the company strings the wires at cost. Many installations along the Fraser Valley have been made in this way.

As a rule, the barn will be wired for light and power circuits will be placed so that they can be tapped at various points. One of the most convenient methods of operation is to use a portable motor which

can be moved in and out of the barn for feed chopping, grain crushing, threshing, silo filling and so forth.

These operations can take place at any time of the day or season, so independent is the farmer who uses power of external conditions. When help is plentiful, he can lay in his stock of wood for the winter and so free his men in the really vital times for work in the fields.

The progressive farmer looks far ahead and considers how the small expenditure on a power installation will be repaid by larger profits, better reputation, and more convenience. The farmer whose dairy is fitted with modern electrically operated milking machines and running water, pumped by electricity, will find his products eagerly sought for by the best city dairies. These results are independent altogether of the benefits to be obtained from the saving of labor accomplished by the use of electrical devices.

In the farm home electricity will bring the convenience that is the mark of the city home. Electric light has become so common as to be the rule rather than the exception, even in farming communities. Now comes the electric cooking device. Thousands of city people make toast, heat water, make coffee and do their odd culinary operations on electrical devices that screw into the lamp socket.

The handiness and economy of these neat appliances make them liked in every household. In summer they do their work without heat. They are always ready for callers and require no fuel other than that which travels silently along the wires. Electricity has become the universal benefactor of the modern dweller of city and country.

Short Course in Horticulture, University of British Columbia, Jan. 8th to Jan. 26th, 1917



THE University of British Columbia offers a three weeks' course in Horticulture, beginning January 8th, 1917. This course is especially designed to meet the needs of those, both amateur and professional who are interested in Horticulture and Horticultural work. Lectures and demonstrations, with trips of inspection, are offered on Soils, Fertilizers, Soil-Management, Plant Physiology, Insects and Plant Diseases, Insecticides and Fungicides, Landscape-Gardening and Home-Decoration, Vegetable Gardening, Small Fruits, Tree Fruits, Canning and general soil, fruit and horticultural problems. The aim is to stimulate interest in the various branches of Horticulture by offering practical instruction based on the Science of Agriculture. To this end the best men available have been secured to deal with the various topics.

The lectures and demonstrations are offered at the University, Tenth Avenue and Willow Street, Vancouver.

For full information and copies of the programme, address,

UNIVERSITY OF BRITISH COLUMBIA

Vancouver, B. C.

The regulation fee will not be required of returned soldiers.

The Happy Farmers of the Pacific Province

(By RUSTICUS.)

"I have lived in Canada over 25 years and I have never known prices so high on all commodities which the farmer produces as is the case today.

The speaker was one of the biggest brokers and exporters on the coast, and his remark followed a general conversation in a club as to the prosperity which marked farming in British Columbia today.

The talk drifted to potatoes. A few days before the writer had met on the street Mr. R. C. Abbott, the market commissioner, and had inquired about potatoes.

"Potatoes?" Mr. Abbott laughed. "Why

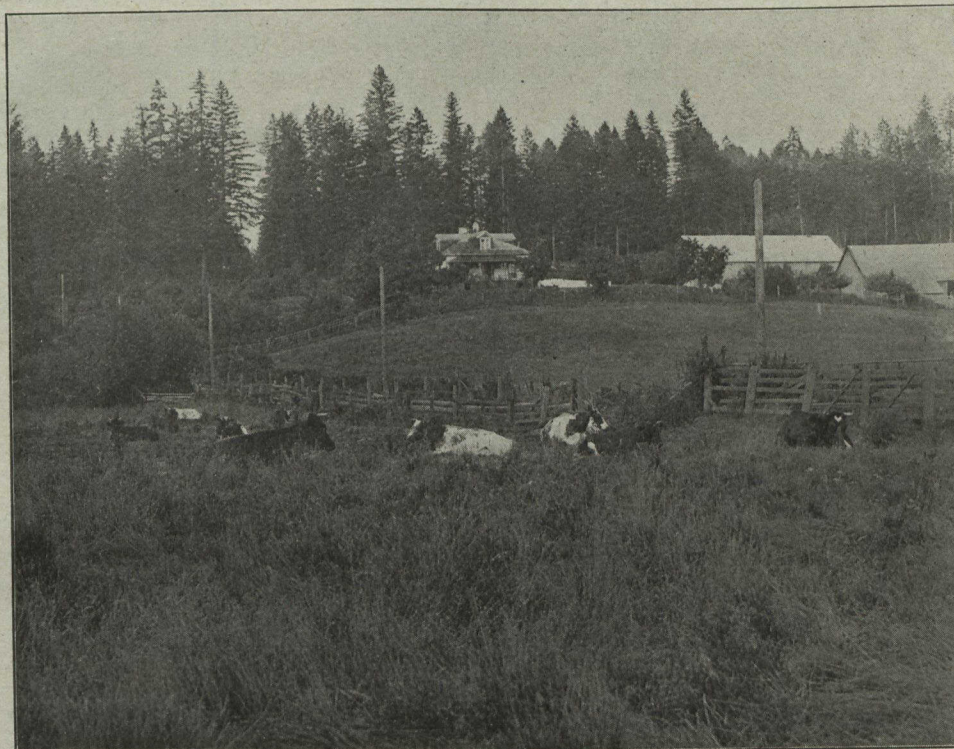
"Is there any prospect of relief?" was asked.

"Not very much. The growers of Washington and Oregon, like the British Columbia farmers, had a very good crop, but they had to pit owing to car shortage, and that car shortage is likely to continue. Fortunately we got our shipments east before this shortage became acute. It is very hard to get cars now."

As to the yield in this province, Mr. R. M. Winslow estimated the potato crop last year at 75,000 tons. It is the general belief among the dealers that this year the

their holds for any fruit but that produced in our own province. This is welcome news to everyone, and especially to those who have strolled through the giant sheds of Peer A on the C. P. R. wharves in former years, and has marked with resentment the huge piles of apple crates along the great sheds marked "Wenatchee" and "Yakima." There are none there today.

More, for the first time in the history of this province, and in fact I believe of the Dominion, B. C. apples will be sold for 20 or 30 cents "Mexican," this month from the fruit stalls of Buenos Aires. A carload



Farm Scene, Vancouver Island.

potatoes are at a premium that I have never seen equalled in this province. I could fill orders for 500 cars if the farmers would sell, but they are holding on for high prices. Some of them think they can get \$40 a ton. Perhaps they can," he added.

So I put the question to the broker when pipes and cigars had been lighted, and asked him what the average price would net to the grower this year.

Mr. Robertson (for it was the ex-manager of the Okanagan Fruit-growers that was speaking) reflected a moment and said:

"I think the average price our potato growers will realize this year will run from \$18 to \$20 a ton. Allowing five tons to the acre you can see that 'spuds' are going to run to money this year."

The present price of potatoes is about \$25 a ton. Over one hundred cars were shipped by the firm of which Mr. Robertson is a member to Ontario alone—Ontario which used to be regarded with the maritime provinces as the home of the great tuber. Ontario had only a half crop, and throughout the United States there has been a great failure, which coupled with the extra demand of the war has stimulated prices to an unusual degree.

crop will run between 90,000 and 100,000 tons.

But the potato man is not the only happy producer. Apples were a fairly good crop this year and prices have ruled high. Mayor Jones, M. P. P., of Kelowna, was on the coast a few days ago and stated that the onion crop in that district this year will run very high. These are being desiccated and shipped east to Grahams of Belleville, where the meat is added, and forwarded as stock for the soup of the men in the trenches. The soup produced resembles Julienne, and so great a favorite has it become that an official of the War Office who was in the Okanagan Valley a little while ago, stated that with the close of hostilities steps would be taken to commercialize this soup and put it on the market in the ordinary way, with the sure prospect of an active demand.

The Natural Products factories at Ladner and New Westminster are also running full time on similar products, furnishing a splendid market for the field and garden crops of the farmers in the Lower Fraser.

Reverting to apples, it will be of interest to all readers of this journal to know that the last Australian boat, and the next two sailings of the same line, are sold out completely with B. C. apples—no room in

of delightful Jonathans were shipped in September from Vancouver via New York. Here they were to be transhipped to a South American steamship line, but there was a delay owing to the arrival on the United States Atlantic Coast of one of the German submarines. The Jonathans were too precious to be exposed to the raids of the submarine artists, who doubtless, if they knew its nature, would sample this cargo before they sent it to the bottom. However, in all probability the cargo is now on its way to South America.

The reception these apples will have will be awaited with much interest. The South American is not an apple eating person, and his tastes will have to be educated. There are, however, a sufficient number of Europeans there who will hail the apples as a godsend even at the excessive price which will have to be asked for them.

Even the more primitive crops in this province are sharing the aviation of prices. "I am paying \$26 a ton for the hay for my horses," said a transfer man the other day in Victoria. "That is just double what I paid a year or two ago."

All of which points the moral that the land is a good place on which to drive one's pegs these days.

PROVINCIAL SEED FAIRS

Mr William E. Scott, Deputy Minister of Agriculture, has recently announced the dates when the Provincial Seed Fairs will be held. It has been decided that the first, which will take place at Armstrong, will be held on the 7th and 8th of December, and the second will be held at New Westminster on the 14th and 15th of December.

All intending exhibitors from the Kamloops district and east shall send their exhibits to the Armstrong Fair and exhibitors from Nicola and west shall send their exhibits to the New Westminster Fair.

The exhibits, in all cases, have to be grown by the exhibitor this year, and the Department of Agriculture reserves the right to take samples of all seed exhibited.

There is no entry fee to be paid and all that is necessary is for the exhibitor to fill up and sign an entry form that is obtainable from the Soil and Crop Instructor, Department of Agriculture, Victoria. Transportation charges on seed shipped to the fairs will be paid by the Department of Agriculture, but exhibits will only be returned at the expense of the owner. If the exhibitor wishes his seed returned, he must notify the Soil and Crop Instructor.

All seed should be shipped so as to arrive at the place of the Seed Fair at least one day previous to the opening of the Seed Fair, but should any exhibitor find it impossible to send his exhibit to the fair before the morning of the first day of the fair, he must notify the Chief Soil and Crop Instructor, care of Provincial Seed Fair, at either Armstrong or New Westminster at least one day previous to

the opening of the fair, of his intention to enter, sending in a list of the exhibits which he wishes to enter in competition. This is to facilitate the arrangement of space.

All shipments of seed for these fairs must be sent, either by parcel post or express, to the Chief Soil and Crop Instructor, care Provincial Seed Fair, either at Armstrong or New Westminster, as the case may be. For further information or particulars intending exhibitors should write to the Soil and Crop Instructor, Department of Agriculture, Victoria.

Following is the list of prizes to be awarded at each of these fairs:

1. Best bushel registered spring wheat, first, \$15; second, \$12; third, \$10.
2. Best bushel registered white oats, first, \$15; second, \$12; third, \$10.
3. Best bushel registered seed potatoes, first, \$15; second, \$12; third, \$10.
4. Best bushel spring wheat for seed, first \$10; second, \$8; third, \$5.
5. Best bushel winter wheat for seed; first, \$10; second, \$8; third, \$5.
6. Best bushel white oats for seed; first, \$10; second, \$8; third, \$5.
7. Best bushel 6-rowed barley for seed; first, \$10; second, \$8; third, \$5.
8. Best bushel peas for seed; first, \$10; second, \$8; third, \$5.
9. Best bushel potatoes for seed; first, \$10; second, \$8; third, \$5.
10. Best 20 lb. potatoes grown by a competitor in boys' and girls' competition; first, \$10; second, \$8; third, \$5.
11. Best 12 ears fodder corn; first, \$10; second, \$8; third, \$5.

12. Best 12 ears seed corn grown by a competitor in a boys' and girls' competition; first, \$10; second, \$8; third, \$5.

13. Best 20 lb. of alfalfa seed; first, \$10; second, \$8; third, \$5.

14. Best 20 lb. of alsike seed; first, \$10; second, \$8; third, \$5.

15. Best 20 lb. of red clover seed; first, \$10; second, \$8; third, \$5.

16. Best 20 lb. of timothy seed; first, \$10; second, \$8; third, \$5.

17. Best 10 lb. of mangel seed; first, \$10; second, \$8; third, \$5.

18. Best 10 lb. turnip seed; first, \$10; second, \$8; third, \$5.

19. Best 10 lb. of carrot seed; first, \$10; second, \$8; third, \$5.



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Nelson.	" Bridge Street.	" Robson Street.
New Westminster.	" Broadway East.	Vernon.
North Vancouver.	" Cordova Street.	Victoria.
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Finishing Lambs for the Flock

Good Profits May Be Realized in Winter Feeding Lambs.

On the Dominion experimental farms some interesting results have been obtained from a number of experiments in lamb feeding conducted during the last few years.

The large percentage of Canadian lambs are marketed in the fall, direct from the pastures. All the lambs from the farmer's flock are usually lifted at the same time, which means that the well finished lambs of good weight must help to sell the light, thin lambs, which may be as well bred but,

one to three carloads of lambs during the winter months, thereby making top market prices on the farm produce and a good margin of profit in addition. Realizing the existence of such conditions all over the Dominion, a large amount of investigational work along these lines has been conducted on the Dominion experimental farms throughout Canada. Details of this work may be seen in the annual reports; however, a brief summary of the work to date may be timely.

best stocker lamb to put into winter quarters. Lambs weighing from 80 to 100 pounds, if thin, may be profitably put in the feed lot for a short finish, and if good fall pastures are available this may be as profitable a line of work as any. The finished, heavy lamb weighing from 80 to 110 pounds, should never be purchased for feeding purposes. The time when greatest profits can be made in purchasing lambs is usually between the months of August and November. However, the condition of



Sheep Raising in B. C.

being late lambs or twin lambs, have not done as well as their flockmates. Well finished lambs of uniform weight invariably command a higher price than mixed lambs varying in size, weight and finish; hence it is always more profitable to hold the lighter lambs and sell only those of uniform weight and finish. Again, the selling of the most of our Canadian lambs during the fall months practically always causes a slump in price. Lambs not required for immediate consumption are held in cold storage to the profit of the wholesaler, in view of the usual increase in price of from \$1 to \$3 per hundred pounds between the months of November and April.

When the farmer appreciates these two conditions the lamb trade will be revolutionized and the farmer will finish his work and reap full profits for foodstuffs consumed by and labor expended on his sheep. Many farmers with abundance of roughage can well afford to finish from

Profits in Winter Feeding Lambs.

In the six years' work conducted on the experimental farms system, the profits on the winter finishing of lambs have ranged from 25 cents per head to \$2.10 per head over the cost of feed. In other words the experimental farms and stations have purchased unfinished lambs on the open market or from drovers, and, after charging good prices for marketable farm feeds and cost prices for other roughages, have made from 3 to 33 per cent. on the investment in the lambs, labor not included. Even allowing a fair margin for labor, this is as profitable a line of feeding work as can be carried on, and shows a return on investment greater than is usual in the finishing of steers or shoats.

The class of lamb to buy depends largely on the lambs available and market requirements. Usually the well-bred lamb showing plenty of constitution and thrift and weighing from 60 to 80 pounds, is the

the pastures and of the lambs themselves, as well as the markets, will regulate the time for purchase. The proper time to sell the lambs is when they are finished, whether this be November or April, or any intervening month. This applies also to the selling of lambs off grass. Finished lambs will make small gains at a very high cost per pound, which cost will usually be far in excess of the market price at that season. In addition to this, the markets are demanding a well-finished lamb, not overdone, and ranging from 85 to 105 pounds live weight, depending upon the breed and season of the year. This, of course, does not apply to the young lamb trade of the spring and early summer.

The following table shows the average profits over the cost of feed in the feeding of lambs on the experimental farms throughout Canada during the past six years:

Average Profits in Winter Lamb Feeding.

Experimental farm at—	No. of Years	Weight of lambs when put in feed lot.	Buying price per cwt.	Selling price per cwt.	Spread between buying and selling prices	Profit over feed, per lamb.
Ottawa, Ont.	5	99	\$6.65	\$8.25	\$1.60	\$1.38
Charlottetown, P. E. I.	4	63	4.65	6.25	1.60	.70
Nappan, N. S.	3	84	5.80	7.83	2.03	.90
*Lennoxville, Que.	1	90	6.00	9.00	3.00	1.65
Indian Head, Sask.	1	70	6.00	6.0034
Lethbridge, Alta.	5	69	5.66	7.67	2.01	1.35
Average	3	79	5.79	7.50	1.71	1.05

*Most of the lambs at this station finished on pasture.

This table shows an average profit over feed—on experimental farms and stations throughout Canada, in the feeding of many carloads of lambs—of \$1.05 per lamb when the spread between buying and selling prices is approximately \$1.70. Since the spread between buying and selling prices has exceeded this amount during the past two years and promises a still further rise during the next two years, one is safe in anticipating a reasonable profit in lamb finishing, in spite of the very high price of lamb at the present time. If this applies to the purchasing of stocker lambs for winter feeding, it would apply doubly to the farmer or shepherd having lambs in an unfinished condition. It is always profitable to finish lambs before putting them on the market.

Feeds for Winter Lamb Finishing.

A large number of feeds have been tried in this work and these may be briefly treated under the four headings—dry roughages, succulent roughages, grains, and mill feeds.

Of the dry roughages, alfalfa hay is an easy leader, closely followed, however, by fine clover hays, and fine mixed hays. At the experimental station, Lethbridge, Alta., it has been found that alfalfa hay, when properly fed with succulent roughages and grain, is worth \$21 per ton for the finishing of lambs. It has also been found that alfalfa hay alone or with meal is less profitable than when succulent roughages, such as roots (turnips and mangels) or green oat sheaves, are also fed. What applies to the rich alfalfa hay also holds true with the clover hays. Good quality clover hay is worth from 10 to 50 per cent. more in lamb feeding than timothy or similar grass hays. Proving the value of succulent roughages, it was found also that good quality timothy hay, plus mangels, gave from 15 to 20 per cent. more profitable gains than clover hay alone. A hay made from peas and oats, well cured, will produce satisfactory gains, but at least 10 per cent. less profitable than alfalfa or clover or a mixture of these with oat sheaves.

Fine corn stover will also make profitable gains, but there is a large percentage of waste. However, a small amount may be fed satisfactorily as a supplement to good quality leguminous or grass hay. Coarse hays commonly found in marsh lands are approximately 50 per cent. less valuable in lamb finishing than good quality timothy hay, and approximately 60 to 75 per cent. less efficient than clover or alfalfa hay. A limited amount of straw may be fed satisfactorily in finishing lambs but this should only be as a supplement to

clover hay and roots. Generally speaking, the richer the hay and the better it is cured, the more profits will be made in feeding it to lambs. Coarse dry roughages of any sort are less palatable, more wasteful and less profitable than are the finer feeds of the same varieties.

Succulent roughages play a very large part in profits from lamb finishing. Generally speaking, good succulent roughages, such as turnips, mangels, sugar beets, corn ensilage, pea and oat ensilage, or the like, make the dry roughages and grains more palatable and more digestible. Again these succulent roughages are cheaply grown and are rich, nutritious foods in themselves. Where corn ensilage may be raised for \$2 per ton, it is the cheapest and best succulent roughage for lamb finishing. When fed with clover hay and grain it will produce 5 per cent. greater profits than a mixture of turnips, clover hay and grain. However, a mixture of turnips and ensilage with hay and grain will usually give greatest profits. The turnip is the safest root to feed in finishing lambs, particularly where wether or even ram lambs may be found in the pens. Mangels, particularly, may have a dangerous influence on the kidneys of wethers and rams.

The grains which may be most profitably fed vary considerably from year to year with the market values of those grains commonly found in Canada. Oats, barley, and feed wheat are all excellent grains for lamb finishing and may be fed whole or crushed, but never fine ground. A mixture of these three will usually give much better results than any one grain singly. Corn is another grain which excels in the fattening of lambs, particularly those requiring only a short finish. Corn-fed lambs on the Central Experimental Farm have reached a profit of \$2 per head, making great gains at a reasonable cost. However, at the present market prices corn would not be profitable for this purpose. Elevator screenings also are very valuable in lamb finishing, varying in value, however, in direct proportion to the variation in the quality of the screenings. Where there is a high percentage of broken kernels of wheat and barley and oats, screenings may have a food value almost equal to a mixture of barley, oats and wheat. Elevator screenings containing a high percentage of black seeds and foreign matter have less feeding value. Screenings with dirt and black seeds screened out give the greatest gains and profits. A mixture of whole screenings with barley and oats has given from 10 to 40 per cent. greater profits than the screenings alone, the variation being

due to the varying quality of the screenings. Black seeds alone are most unpalatable and are dangerous to feed, in that a large proportion of the feed will pass through the lambs in an undigested condition, and will again germinate on the land. Black seeds fed alone are unprofitable, and the lambs will make small gains if compelled to depend on this feed for their sustenance.

It is doubtful if, under average conditions, any high percentage of mill feeds can be fed profitably in lamb finishing. However, where grains are very expensive the following meals may be profitably used: Bran is an excellent addition to a grain mixture, especially in the absence or partial absence of succulent feeds. Linseed oilcake might often be profitably added to the grain ration to put a final finish on the lambs. Gluten meal is even superior to linseed oilcake. Cottonseed, when not exceeding 10 per cent. of the ration, may often be a profitable addition to the grain ration. Middlings, shorts, and fine ground grains are of a pasty nature when moist and should not be fed.

To chiefly summarize the feeds, one might say that the character and quantities of feeds depend largely upon market conditions and feeds available. A ration including some good succulent roughage and properly balanced as to nutritive contents will almost invariably give greatest profits. Generally speaking, it will not pay to exceed one pound and a quarter of grain per lamb at the finish, nor will it be profitable to feed more than five pounds of succulent roughage and three to five pounds of dry roughage per head per day at any time during the finishing period.

Cost of Equipment.

The cost of equipment for the finishing of lambs is very light. Warm quarters are not necessary for sheep of any class. Sheltered sleeping quarters, free from draughts and having a dry floor, are usually all that is required. A good, tight, single-board shed with doors opening to the south or, for the prairie provinces, a straw shelter or even the protection of the bush or the straw stacks, would, under average conditions, be ample for this purpose. Cheap, convenient racks and troughs or a combination rack and trough will cost little per carload of lambs fed and, if made portable, may be used for both summer and winter feeding. No other class of stock requires so little in cost of equipment, in buildings, utensils, preparation of feeds, or in any other way, as do sheep. In these days when labor is extremely scarce this phase of animal husbandry should appeal strongly to the farmer who has not sufficient labor to go into dairy husbandry, swine, or even beef cattle.

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SUCCESSFUL MARKETING OF THE B. C. FRUIT CROP

(By S. J. FEE.)

There are three words standing for three great principles necessary for the successful marketing of the crop: Co-operation, concentration, supervision. After giving a slight idea of what these mean, I am going to devote an article to each and make them so clear that every one can understand.

Co-operation, is all working together for the benefit of all. Concentration, is keeping the goods in one main channel, and so lessening the cost and waste of too many competitive handlers. Supervision, is watching over the goods from the picking until the consumer is reached.

We all seem to know what co-operation means, but the details and schemes of co-operation are as many and varied as the minds of men. While co-operation is all working together for the benefit of all, it is in reality a struggle for big business. Big business is modern business, and co-operation is a struggle for modern business. The great difference, however, between big business and co-operation, is that big business is a combining of many successful businesses under the management of the ablest men in those lines, while co-operation is the combining of small businesses, too often under the management of men of very little ability, and lacking the training necessary to cope with the established competitive businesses. The natural results do not prove co-operation is a failure, but that the men at the head of them were, or that the people comprising the co-operative associations did not possess the broad business minds necessary to a broad co-operative business.

Then many co-operative associations have been founded on wild promises of wonderful results, and even had they met with a fair measure of success, that success was so far short of the wild promises that the members were disappointed. Other mistakes have been the wiping out of the personality of the individual by giving the members numbers instead of letting them keep their names and the trade marks they had been using. And by pooling over long periods, making the returns slow, indefinite and often open to various suspicions. Co-operation should be on a platform broad enough for the small man as well as the big, recognizing the individuality of each. Pooling should only be resorted to when absolutely necessary, and then only to cover single carloads, single shipments and the very short shipping periods, so that all the transactions comprising the pools can be easily traced and open to each and every member. Arbitrary rulings and measures should be avoided. Every transaction should be set down simply and clearly, a copy sent to every member of the association. Hard and fast rules should be avoided as much as possible; managers and directors should be selected for their business qualifications. The local management is a matter of local conditions, to be governed by the kinds of fruits to be handled, the markets to be reached, and conditions governing the reaching of those markets. Co-operative marketing is as certain as big business, both are economic methods of modern business, each individual will no more market his produce than he would try to haul it to market on his wagons in competition with the railways. Marketing will not be conducted in a haphazard way, but by combination on a regular scale of charges, these charges known and recognized as standard by the public.

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Vancouver Island Farmers Organize

Mass Meeting of Island Agriculturists Decides to Organize for Improvement of Conditions

The feeling in favor of organization among farmers is everywhere on the increase, and on Nov. 4th the farmers of Vancouver Island fell into line, and at a great mass meeting held at Duncan, decided to form an organization which will be called the Vancouver Island Farmers' Union. The meeting was held in the Opera House, and more than a hundred of the progressive farmers of the Island were present. They represented every part of Cowichan district. Other districts were well represented, notably Metchosin and Comox. Over 75 members were enrolled on the day of the meeting and paid their membership fee. Since then the number has been increased to over 100, and reports from various districts since received indicate that the recruiting campaign is booming.

Major Mutter, Somenos, acted as chairman; Mr. D. C. Hills, Somenos, as secretary. The major said that everywhere want of union was the greatest difficulty under which farmers labored. Farmers had been the support of politics. It was about time farmers now made farming their politics. There was no need to mind party if the farmer looked out for farming interests. The desirable thing was to have farmers united when farming questions came up.

Purposes of the Union.

He called on Mr. C. G. Palmer, C. I. E., Quamichan, to explain the objects of the meeting. Mr. Palmer said that in response to the suggestion that farmers would benefit by having a union, the Cowichan Creamery directors had called the meeting. The creamery was simply trying to help the proposed union in this way. After it had been formed it would stand on its own feet.

If the food producing industry is prospering, said Mr. Palmer, the cost of living is kept low and vice versa. If farming cannot be made profitable, men engaged in it must drop out, making things worse for all the community. Mr. Palmer emphasized three points, namely, that the farming industry ought to be profitable and is not so at present; that any improvement in conditions can only be made by the efforts of the farmers themselves; that the scattered efforts of individual farmers do not have much effect, and the spasmodic outbursts of farmers' mass meetings do not in practice amount to much more. To carry on a continuous policy and keep up a steady pressure it is necessary for the farmers to form themselves into a compact organization which can act as a body with persistent weight and influence.

He outlined a plan of organization and looked to the proposed union covering all the island first, and then getting into gear with similar organizations on the mainland as soon as possible. Once organized farmers would profit individually from mutual discussion and collectively from the power of the combined unions. He instanced matters which might be undertaken.

"The efforts of the union would be directed to the task of educating ourselves to look after our interests, to initiating and helping in the working out of a cer-

tain amount of co-operation where it is thought profitable to regulate outside dealings where it seems advantageous to us all, and to the whole body of farmers with authority as their accredited representatives and with power derived from their all pulling together."

Time To Awake.

Mr. H. G. Helgesen, Metchosin, was a strong advocate of organization. No class, save Indians and the insane, lacked organization. The humblest class was not afraid to organize for a better reward for their labor. Were farming conditions satisfactory? No. Salvation was by their own efforts and through organization. Instancing its advantages, he cited the milk question. Prices were not fair and equitable to the farmer. Individual action would not remedy matters but the united farmers of the island would be listened to. The power the farmer held had lain dormant for centuries. Now was the time to awake.

Looking at the meeting Mr. Charles Bazzett, Quamichan, believed the millenium was coming. It meant fair treatment, something the farmer had never yet received. He compared the foolishness of the farmer in the past with the business sagacity of the manufacturer who priced his wares believing the world had got to have them. Surely the man behind the plough had the "got to have" goods. Farmers had not learned yet that they have the power to bring the world to their feet. He who creates food has a right to a fair return for his labor.

The enchantment of farming failed when men had to mortgage their land because they did not receive enough for their products. Everyone but the farmer could go on strike. He believed they were making history that day. They must stand pat and thus they would succeed.

Mr. R. M. Palmer, Cowichan Bay, favored the formation of a farmers' union. The farmers' outstanding difficulties were want of organization and present cost of production, with which was bound up the labor question.

Lesson of Election.

Mr. K. F. Duncan, Duncan, said that one of the lessons he had learned in the recent election was that concerning farming conditions. At least 75 per cent. of the residents were connected with farming, yet, with the exception of a Cowichan Station association, no effort had been made by farmers to have candidates place their views before the legislature. Their apparent helplessness was due to lack of organization. Every other element in the community was imbued with co-operative effort. Farmers must follow suit.

At the end of the war, said Mr. Duncan, heavy taxation, running to \$100,000,000 a year, would be necessary. Organizations were springing up with the idea of shifting the burden on to some one else. Already in Ontario a tax reform association proposed to meet the situation by placing a 1 per cent. tax on all land values.

Standardize Production.

Mr. E. W. Neel, Cowichan Station, believed that economic organization should come first. Political force would natural-

ly follow. The great difficulty today was that farm production was not organized or standardized. Thus wholesalers bought over the line. With perishable products strikes were not easy.

Mr. Hugh Savage, Duncan, said he was an avowed critic of the farmer. If they would perform their clear duty in war-time and organize the district for its fullest production, The Cowichan Leader would continue to be with them to the end. Were all the cleared land in the district being utilized there would be no need to send out money for imports. The farmers should copy the soldiers' discipline and loyalty, though his leaders might not be perfect. Kelowna had begun a similar union movement a year ago and it had failed. Here farmers had set their hand to the plough and they must go on.

Mr. H. B. Wingate White, Cobble Hill, said that trades unions had a hold over their members. Lacking power to enforce common action among members farmers' institutes were a big failure. A farmers' union was doomed to failure unless members pledged themselves to union control. He cited a Comox instance of farmers defeating themselves by disunity.

Mr. H. Miller, Somenos, described how the prairie farmers' "Patrons of Industry" movement was at first successful, then failed in handling wholesale supplies through members' narrow views. He emphasized the need of a pledge of loyalty.

Organize or Quit.

After lunch Mr. W. Paterson, Koksilah, believed the plain issue was that of forming a union or ceasing to farm. If the union movement was limited to Cowichan only it had better be left undone. At a recent milk dealers' meeting to consider raising the retail price, he had suggested that the price had more need of being raised at the farmers' end. A prominent dairyman had told him that if the farmers united and told him he had to pay \$1 a gallon or go without, he would pay it.

"The farmer is the only person who lies down and does not fix the price of the article he sells," said Mr. Paterson. Merchants, Japanese, Chinese, even shoeblacks, were organized. He favored appointing delegates who should go out and rope in every farmer on the Island. Other districts stood with Cowichan. "We can make it impossible for a farmer to stay outside our organization, if we only join hands tight enough," he declared.

Mr. G. H. Hadwen, Quamichan, said that the time was ripe for a farmers' party and a province-wide movement. The political end of the organization should be of great advantage, particularly concerning immigration policy. He moved, Mr. F. J. Bishop, Koksilah, seconded and it unanimously carried, that an association be formed to be called a Farmers' Union, or some similar name, and that efforts be made to bring in the other districts of the province.

Union Missionaries.

A provisional committee, to go forth as missionaries to deal with the whole island and with power to add to their number for every separate farming community, was then named, thus: Metchosin, Mr. H. G. Helgeson; Comox, Mr. R. V. Hurford;

Shawnigan Lake, Mr. G. A. Cheeke; Cobble Hill, Mr. Brooke Wilkinson; Hillbank, Mr. E. H. Forrest; Cowichan Station, Mr. F. J. Bishop; Koksilah, Mr. W. Paterson; Cowichan Bay, Mr. R. M. Palmer; Glenora, Mr. Maris Hale; Quamichan, Mr. C. G. Palmer, C. I. E.; Somenos, Mr. A. A. Mutter; Westholme, Mr. L. F. Solly; Mr. G. H. Hadwen was also elected to the committee.

Mr. H. W. Davis, Comox, said he was simply a producer, not a speaker. As a farmer, for generations back, he was pleased to be at last in a farmers' union.

Mr. R. M. Palmer then gave an address on the labor situation.

The committee met after the general meeting and appointed provisional officers, Mr. R. M. Palmer being named chairman and Mr. W. Paterson, secretary-treasurer.

The meeting lasted from 11 a. m. to 3:30 p. m.

BRITISH COLUMBIA DAIRYMAN'S CONVENTION

The next annual convention of the British Columbia Dairymen's Association will be held in the City of Nanaimo on Thursday and Friday, January 25th and 26th, 1917.

During the past few years it has been the policy of the association to hold these annual conventions in different dairy centres. Nanaimo is the centre of a splendid dairy section, and is within easy reach from Cowichan, Victoria, Comox, and Alberni districts, as well as being conveniently reached by boat from mainland points.

Every effort will be made by the officers of the association to make the 1917 convention excel any previous one. Addresses will be delivered by speakers of very wide reputation in dairy circles. Arrangements are being made to hold competitions for producers in market milk, approved milk, cream and creamery butter classes. Over \$5000 in cash prizes will be distributed.

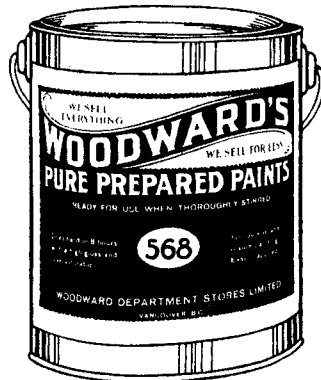
Mr. T. A. F. Wiancko, of the Department of Agriculture, Victoria, is the acting secretary of the association, from whom full particulars may be obtained.

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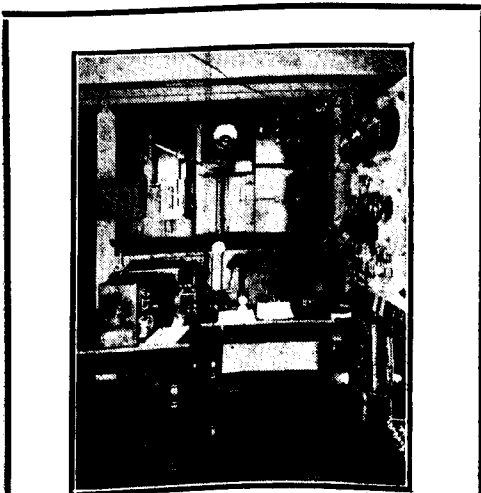
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Beekeeping in British Columbia

By WILLIAMS HUGH

THE BEEKEEPERS' ASSOCIATION OF B. C.

A meeting of the directors was held in Vancouver, Nov. 6th, under the presidency of D. Mowat, to consider reports of several committees. The question of the sizes of hives, supers, etc., was discussed, and the following decided upon: "With a view of standardizing appliances and supplies used by beekeepers of British Columbia, and making it possible for every one to get supplies, which will be interchangeable. The directors recommend the following be standard for sizes and material, and asks the several dealers and manufacturers to co-operate. The measurements are printed in another column.

The rules adopted are the same as the Ontario standard of the Langstroth hive bodies and supers, these were sent by Mr. Morly Pellett.

Messrs. W. H. Turnbull and Bevan Hugh were requested to procure designs for a small label and submit same to the next meeting. The meeting then discussed the question of imported honey, and with a view to protect the B. C. producer. The secretary was requested to take up the question with the department of agriculture. Secretary Hugh has drawn the attention of the government to the necessity of bringing in a measure at the next sitting of the legislature, similar to the Egg Marking Act, for the protection of honey pro-

duced in the Province of British Columbia, whereby all imported or blends of same from foreign countries, or foreign honey imported in bulk and put up in small containers for the purpose of sale within this province, shall have a distinctive label, setting forth information that the blended honey is of foreign origin. Such a measure would protect the public against the sale of inferior and in some cases injurious foreign products, called honey, and would promote the sale of honey produced in B. C.

The annual meeting of the association will be held in the Board of Trade rooms, Vancouver, Wednesday, February 7. Directors will meet at 12:30 p.m.; conference at 2:30; addresses and papers, 7:30 p.m. Election of officers and reports.

B. C. STANDARDS FOR BEEKEEPERS' SUPPLIES

As Adopted by the Beekeepers' Association of British Columbia.

Standard material—Hive bodies and supers should be made of double dressed clear cedar, or white pine, 7-8 inch thickness.

Hive bodies and deep extracting supers (outside measurements)—10 frame; 20 in. long by 16 5-8 in. wide by 9 1-2 in. deep; 8 frame, 20 in. long by 13 7-8 in. wide by 9 1-2 in. deep. Shallow extracting supers

are 5 3-4 in. deep. Comb honey supers, for 4 1-4 by 4 1-4 sections, 4 3-4 in. deep. Bee space—Over frames in hive bodies and supers is 1-2 in. full or 5-16 in. Bottom board—Reversible style, 3-8 in. entrance on one side and 7-8 in. entrance on the other. Covers—Flat, with air space, covered with galvanized iron tops.

Frames—Length, outside measurements, 17 5-8 in., shoulder to shoulder; depth, outside measurements, top to bottom, 9 1-8 in. End bars, 5-16 in. thick. Top bars, length 19 in.; thickness, 7-8 in. scant; width, 1 1-16 in. scant; extensions of lugs, 5-16 in. thick.

NOTES CONCERNING BEES

Now is the time to consider your requirements for your apiary. Place your orders early with B. C. manufacturers. Always have on hand an extra few deep supers, with frames, and when putting the hives together paint the joints; then give a good priming coat of white paint over all.

A beginner writes me: "I am thinking of starting, in the spring, beekeeping with pound packages of bees. How shall I manage when they arrive?" As you are commencing I would suggest you buy a colony from a member of the association. Get thoroughly acquainted with the bees and the manipulation of the frames; let your one colony be the foundation of your apiary, and increase from that. You can double or treble if you wish every year. Should you buy pound packets of bees you must have a hive ready with, preferably, drawn out comb, but foundation in frames would do. The bees would have to be fed when in the hive.

To Investors

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IN SUMS OF \$500 OR ANY MULTIPLE THEREOF.

Principal repayable 1st October, 1919.

Interest payable half-yearly, 1st April and 1st October by cheque (free of exchange at any chartered Bank in Canada) at the rate of five per cent per annum from the date of purchase.

Holders of this stock will have the privilege of surrendering at par and accrued interest, as the equivalent of cash, in payment of any allotment made under any future war loan issue in Canada other than an issue of Treasury Bills or other like short date security.

Proceeds of this stock are for war purposes only.

A commission of one-quarter of one per cent will be allowed to recognized bond and stock brokers on allotments made in respect of applications for this stock which bear their stamp.

For application forms apply to the Deputy Minister of Finance, Ottawa.

DEPARTMENT OF FINANCE, OTTAWA,
OCTOBER 7th, 1916.

Deadman's honey from Ontario is selling in Victoria, B. C., at 25c for an eight-ounce jar net, and \$1.35 for a five-pound can.

Do bees bring in pollen to a hive when there is no queen? Bees will, occasionally, return laden with pollen, enter the hive and run out again—sometimes flying around—they appear to be searching for something—the colony will be queenless. In a queenless colony, during the past summer, the bees did not bring in pollen. Are there any exceptions to this?

CANDY FEEDING FOR BEES

(By W. J. SHEPPARD, Nelson, B. C.)

A question that seems to crop up with the regularity of clockwork every season is: How late in the year can syrup be fed to the bees? In this section of British Columbia, when syrup feeding is necessary in the autumn, it is always advisable to get it finished by the end of September so that the bees can store it in the combs and seal it over before the nights get too cold that they are unable to do so. Sometimes the weather during October is favorable for syrup feeding, but this is not to be depended on, and it is therefore not safe to leave it so late. If the food is not properly sealed over when the bees go into winter quarters, dysentery often supervenes, and if the colony does not perish outright in the winter it will be greatly depleted of bees before spring arrives, and the vitality of the survivors will have become lowered. Spring dwindling may then follow, and if the colony does not actually succumb it generally happens that it is impossible for it to build up in time for the honey-flow, and a season is lost. If syrup feeding is put off till too late, for any reason, properly made candy is the very best; in fact the only substitute. Bees will winter on candy alone, but much care is necessary in making it of the right consistency. If it is too hard the bees cannot take it, and if it is too soft it will run down between the combs onto the bottom board, out of reach of the bees. In either case starvation may result. One of the most reliable recipes for making candy is known as Brother Colomaban's Formula, and is as follows:

"Into an enamelled pan, or preserving pan, put 10 pounds of cane sugar (white crystals) and two quarts of hot water. Place over a clear, bright fire, and stir till the sugar is dissolved. When it begins to boil draw the pan aside for a moment, and while it continues to boil slowly, remove the scum from the surface. This done return the pan to the fire, and let it boil as fast as possible, without stirring, for about 20 minutes. Test with a sugar boiling thermometer and boil until the temperature reaches 235 degrees, when the sugar will be sufficiently boiled. Then stir in one teaspoonful of cream of tartar, boil for one or two minutes, and remove from fire to cool. When the sugar has so cooled down that the finger may be kept in it for half a minute without scalding, then begin to stir, and continue to do so until the candy becomes white and stiff. The pan is now stood in another vessel over the fire, containing hot water. In a short time the candy becomes more or less liquid, like cream, and an occasional stir must be given to dissolve all lumps. When properly dissolved and brought to almost boiling point (say, 204 deg. Fah.) pour it into the

moulds or boxes and allow it to cool. To avoid overboiling, remove the pan from the fire while testing whether cooked enough. Also, to prevent mishap in another direction, i.e., boiling over, the pan used for making the candy should not be more than half full."

The following is a shorter candy recipe that answers very well, if the directions are strictly carried out: "To 10 pounds white crystal sugar add one and a half pints of hot water, a quarter of an ounce of salt, and a teaspoonful of cream of tartar. Put whole in a stewpan over a brisk fire and keep stirred till the sugar is dissolved. When it comes to the boil draw pan back so that it simmers gently for 10 minutes, and as the scum rises skim it off. Then place stew pan in a larger vessel containing cold water and keep stirring until it is of the consistency of thick cream, and pour into boxes or moulds. When candy is properly made it should be just soft enough to be easily scraped with the finger nail. When it is ready to pour out of the boiler, if boxes have not been prepared ready for it, a very good plan is to line a deep pie dish with brown paper and pour it into this. The paper will remain and prevent the candy from sticking to the coverings when on the hive. It is best to place it on the centre of the frames, over the ordinary feed-hole.

It may happen that in the fall the bees are only a few pounds short of the necessary amount of stores (25 to 30 pounds) to carry them through the winter, in which case a cake of candy can be put on the hive when packing them up, to make up the deficiency, without troubling to feed syrup at all. Candy can also be given to the bees in the spring, and is the only proper food then until they begin to fly freely, when thin syrup can be substituted, if they are short of stores. Candy is a very safe food early in the year, as it does not start robbing, like syrup sometimes does, which may result in the balling and loss of queens. It is also very stimulating, as the bees are only able to liquify and use it slowly. Some beekeepers mix pea flour or

other pollen substitute, with the candy used for spring feeding, with good results, in districts where natural pollen is not sufficiently abundant. Several spoonfuls of pea flour are stirred in just before the candy is ready to pour out into the moulds.

AMERICAN AND EUROPEAN FOULBROOD IN SAME COMB

American and European Foulbrood in the Same Comb.

During the past summer a sample of comb from an apiary in Stanislaus County, California, was sent to a laboratory for bacteriological examination in the States. The presence of American and European foulbrood was detected in the comb. The American foulbrood was recognized by the typical scales, adhering to the lower cell wall, by the bacillus larvae, and by the characteristic odour. The European foulbrood was known by the grey, yellow and brown coloration of the larvae, and by the presence of *B. pluton*, and spores of *Bacillus alvei* were also found. The last named bacillus *alvei*—literally hive bacillus—is not the cause of any brood disease. It appears in colonies sometimes in which European foulbrood is present. In fact it is a rather common occurrence with this disease. It has, writes Dr. E. F. Phillips, the official in charge of agricultural investigations in U. S. A., been found in one or two cases of American foulbrood, but the feeding experiments and inoculation experiments that have been carried on show that it is not a pathogenic—i.e., disease producing—organism. During the winter months beekeepers should read up one of the many small bulletins published by the government on the subject of the brood disease of bees, so as to become acquainted with American foulbrood, and its treatment. No beekeeper can avoid the disease entering the apiary, but he should be always ready to cope with it, and prevent it spreading to other colonies, as far as it lays in his power.

Christmas Shopping

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Gardening for the Home---Digging

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

Digging! This seems rather a hard subject to make interesting reading out of, but it is nevertheless a fundamental operation of the utmost importance.

Doubtless many readers will remember the story in their school books of the farmer who, on his deathbed, gathered his sons around him, telling them of the hidden treasure in the vineyard, and counseling them to dig deep to find it; and of how they toiled and sweated, but without result, until harvest time, when "the crop soon overpaid their toil."

The moral was too obscure for our childish minds to appreciate, but those of us who have followed the cultivation of the soil have yearly, nay daily, had the moral brought home to us, and with the experience of maturer years can fully appreciate the sagacity of the old farmer.

The other day, in conversation with a friend, I was told of a man who had beaten all his neighbors this year with his garden produce, and that, too, in direct opposition to the prophesies of his friends.

The garden had to be made on a particularly rocky piece of ground, and this, in the opinion of his neighbors, precluded any degree of success whatever. Those rocks, however, acted the part of the alleged treasure in the above parable, for, to remove them, the garden had to be thoroughly turned over, the subsequent crop exceeding all expectations.

Evidently, then, there is something in thorough cultivation.

By deep cultivation, a larger area is provided for the roots to run and feed in; air is admitted more freely to the lower soil, sweetening it and helping to bring into availability the stores of plant food which lie locked up in most soils.

While it is good to remove rocks and dig deeply, still both can be overdone. The practice of screening the garden soil to the depth of a foot or two is quite superfluous, and even stones have their uses in the soil; for one thing, the warm atmospheric air coming in contact with their cooler surfaces, parts with some of its moisture by condensation, thus providing a source of water supply which cannot be overlooked, especially where continued droughts are common.

Generally speaking, stones up to the size of a hen's egg may be left; the garden rake will be quite sufficient for dressing off the surface of seed beds, and, for the sake of appearance, flower beds and borders.

With reference to deep cultivation care must be taken that too much of the subsoil is not brought to the surface at once, this being sometimes actually poisonous to plants, especially if it is a blue clay. Gravelly subsoil is little better, as many know, when, after the disturbance of clearing and building, the good soil is often lost sight of, and no end of trouble and expense entailed before a productive soil is built up again.

A good way of ensuring deep cultivation, and at the same time retaining the good

Flowers

The Most Acceptable Xmas. Gift.

Boxes of choice Cut Flowers, containing Chrysanthemums, Carnations, Roses, etc., from \$1.00 and up. Pot Plants, Basket, etc., from 50c each. Holly, laden with berries, 50c and \$1.00 per box.

Mail orders receive our prompt attention.

Wishing all our many customers a very Happy Christmas, and soliciting a continuation of their patronage.

RITCHIE BROS. & CO.

840 Granville St. Vancouver, B. C.

soil on top, is to take out a trench two feet wide and the depth of the good soil, at one end of the piece to be dug, and wheel it to the opposite end to fill up the final trench.

Spread some manure in the bottom of trench and dig it in the full depth of the spade, even if a pick has to be used to loosen it. When that has been done spread another layer of manure in the trench; mark off another trench the same size and turn the top spit into the first to replace that which you wheeled away. Repeat the same process as with first trench, and so on till the whole is completed.

Subsoil located in this manner will be fit to bring to the surface in two or three years' time, and by that time you will have doubled the productivity of your garden. If the soil is inclined to be gravelly or sandy, it is best to use heavy cow or pig manure to help bind it; but if it is a clay, large quantities of horse manure is best. A very good method of treating a clay soil is to throw the upper spit up in ridges, and the rougher the better; the winter's hard frost will freeze the ridges through and through and assist immensely in the amelioration of the clay. The ridges, when carefully and uniformly made, look well and help break the flatness of the kitchen garden during the dormant months. This is the time to lay the foundation of a successful year, and those who take pains to lay it substantially will be amply rewarded, for in the soil lies hidden treasure indeed if we but take the pains to unlock the safe.

This is a good time to mulch roses, and for this purpose fairly rank manure is best, as it acts as a protection from frost as well. Put on a layer four to six inches deep, and work it well round the necks of the plants. Mulch with manure, also hydrangeas, spiraeas, philadelphus, lilac, etc.; rhododendrons with peat, or well decayed moss litter manure.

It is also time to protect various shrubs which are liable to get killed back by frost, such as *dydrangea hortensis* and the tree lupin.

It isn't such a difficult matter to protect deciduous shrubs, but evergreens are more difficult, for if you entirely exclude light and air from them they are apt to drop their leaves. When the plants are in the open, it is a good plan to tie the branches as tightly together as possible; then cover with drawn straw, tied tight at the apex, after the style of the straw covers for bottles. When against a wall, drawn straw may be used, but better still are green fir branches, tied tightly against the plants, with their tops hanging down.

Subjects like *hydrangea hortensis* and the tree Lupin are well worth an effort to protect, for unless you can save this year's growth there is little chance of them flowering next year.

Wallflower is another thing which in some parts is difficult to winter. Should the plants be covered with snow, they are safe; but should there be a spell of frost while they are uncovered, they are very liable to suffer. It is well, therefore, to



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have a thick covering of straw handy, should the conditions indicate hard frost without snow.

Have also protecting material ready to cover any frames bedding plants may be wintering in. Those of you who have heating systems in your houses may, with a little trouble, force your own rhubarb by enclosing a part of the pipes in a wooden box or trough. A box two feet wide and four feet long would give an ample supply for the average household. To set about forcing rhubarb, the first thing to do is to dig the plants up and let them get well frozen if possible; then pack them as tightly together in a box as they will go, filling the interspaces with soil crowns just on top. The box ought to be big enough to allow a space of 12 or 15 inches between the crowns and the top.

To get the best results, rhubarb must be grown in a very subdued light. To prevent the development of the leaf and encourage the elongation of the stalk, a sack is the best covering for the box. The main thing now is to give an ample supply of water, and the temperature of the water must be about the same as that of the box, probably 75 or 80 deg.

The box must be provided with holes in the bottom for drainage, and some kind of an arrangement fixed up to catch the surplus water.

If the above temperatures can be sustained, and all the other details carefully carried out, you may expect to commence gathering your crop in about two weeks' time.

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ROTATION OF CROPS TO INCREASE THE DUTY OF WATER ON THE FARM

In these days when the slogan of every farmer should be greater production per acre rather than an increase in acreage, on account of shortage of help and the inability of water companies and municipalities to raise capital to enable them to store more water, the superintendent of the experimental station at Summerland points out necessity of putting irrigated farms under a rotation.

Experience has shown that alfalfa in most soils responds in yield up to 3 ft. 6 in. or 4 ft. of water. Clover and pasture follow this very closely during a period lasting from the middle of April to the middle of September. Grain, on the other hand, requires much less water, varying according to soil from 1 ft. 6 in. to 2 ft., and spread over a much shorter period, say from April 15th to July 15, so that it is quite evident that with a rotation, including some grain, the maximum amount of water would be needed during flood-water time, and thus reserve the dammed water for the alfalfa, clover crops and pasture. Hoed crops require less water than other crops as moisture may be conserved by good tillage.

Further, by following a rotation, each part of the farm has a chance of getting its fair proportion of manure at regular intervals, vegetable matter is turned under thus getting the soil into better tilth, and at the same time increasing the duty of water. Besides this, weed control under irrigation can be accomplished only by a rotation of crops.

However, careful a farmer may be with weeds, unless the ditches and the whole community served by those ditches, are controlling weeds, the water coming through the ditches will seed the land it serves each year. The hoed crop year is, of course, the best year for weed control, and the cultivator should be used often and well during the season, and after each irrigation as soon as the land is mellow enough.

The rotation suggested as best suited to irrigation farming in British Columbia is as follows:

First year, grain; second year, seeded to clover and timothy or alfalfa and orchard grass; third year, hay; fourth year, hay, one crop, manured in summer, and second crop turned under; fifth year, hoed crop.

Thus 20 acres of arable land would be cut up as follows: Four acres grain, 12 acres hay, 4 acres hoed crop. To examine this from a water standpoint, it would give eight crops requiring large amounts of water, eight acres requiring a small amount and four acres of hay which would be ploughed under and would not need so much as if growing.

"IT'S NOT CHARITY I WANT"

The Returned Soldier Wants a "Fair Chance," and Shall Have It.

A soldier limped into a restaurant in Quebec, where he had just landed with a big bunch of other wounded men. A civilian, about to dine, invited the soldier to join him.

"Thanks," said the man in khaki, sitting down, "but I'll pay for my own dinner." He evidently had a wholesome horror of being regarded as an object of charity.

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"I respect your feeling," said the civilian, "but see here—my boy's over there, and wounded like you. As I can't have him home for his Thanksgiving Dinner, won't you let me adopt you as my son for the occasion?"

Only then did the soldier give in.

He talked quite freely about his experience, though disposed to make light of his own trouble. Of all the remarkable things he had noticed, the most extraordinary, in his opinion, was the freedom of the army from the scourge of former wars, enteric fever—owing, of course, to the scientific measures of prevention now in force.

But, after all, the war was now behind him, and he was thinking more of what lay before him.

"It's not charity I want," he declared, emphatically, "I just want a chance to make my own way. I've a wife and two children, and the sooner I can get back and make a living for them the better I'll be pleased. Yet they tell me I must have two months more treatment; and even then I can't go back to my old work."

"Fortunately the civilian knew what was being done, and was able to re-assure him.

"That's the job of the Military Hospitals Commission," he said. "It's not only at the front that up-to-date scientific methods are being used to keep the men in health. They are being used in the convalescent hospitals here, to give them back the health they have lost, and to find out what work they can do best, and fit them for it."

"And I hear," the soldier said, "that if I have to take up a new job, the government will pay maintenance allowances for my wife and children while I'm getting trained?"

"That's true."

"Then it's all right," he said. "People say that jobs won't be as plentiful when all the boys come back. But once I've made a start and got a footing I know I can make good and keep my job. I'm not afraid. But, mind you, I want no charity, only a fair chance. And the other boys'll tell you the same thing."

They shall have it, these wounded boys of ours.

"No charity, but a fair chance."

Not long ago an American journalist was permitted to visit the trenches "somewhere in France." No fighting of importance was under way that day, so he said in a jocular way to a big Irish private: "Well, this isn't much of a scrap." Patrick grinned. "Sure," he replied, "it's better nor no scrap at all."

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POULTRY SECTION

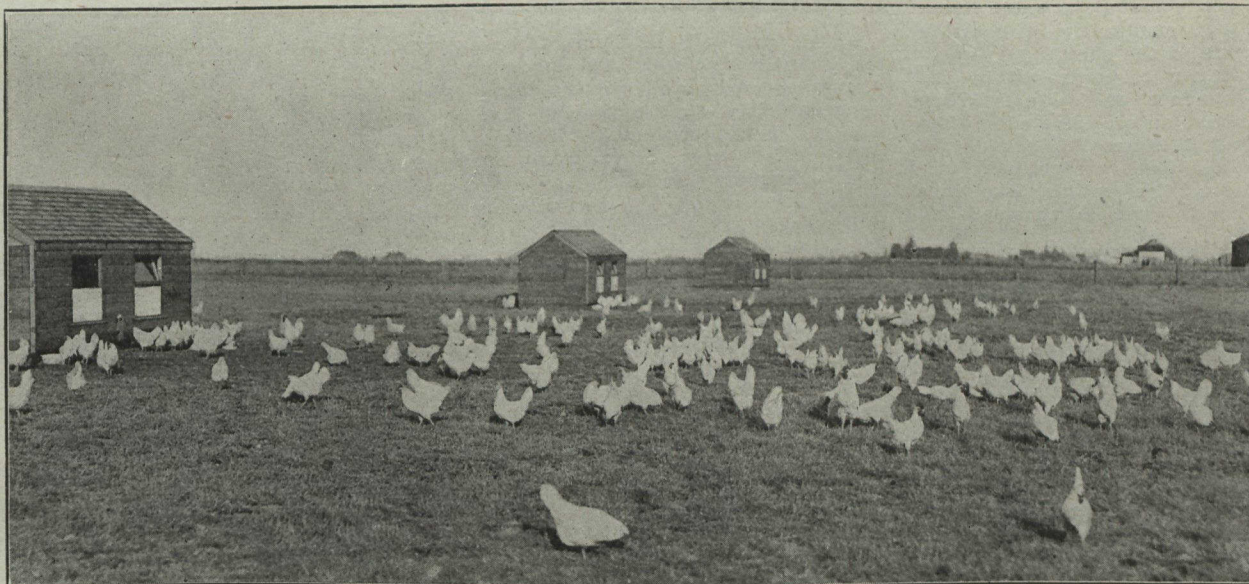
DELIVERING HONEST EGGS TO MARKET

Naturally it would be considered a good business method to preserve the summer-laid eggs and sell them during the winter when the prices are at the highest, and when the average hen on the farm is not doing much in the egg-producing line. That is, one would consider it a wise move, providing those eggs would present a fresh appearance and a fresh flavor when taken out of the brine, pickle, or whatever method is employed.

arily that would be a guarantee of freshness, but it is not always so. Not that the farmers are dishonest, nor that the dealers wish to play a trick upon the public. But the fact remains that in gathering the eggs, farmers are often careless. In the first place the hens are allowed to free range, with manure piles to scratch over and pools of stagnant water to drink from. Certainly such treatment will not give the eggs the fine flavor they naturally get when fed nothing but pure grains, pure meat scraps and other articles of similar purity. The greatest trouble comes in gathering the

reputation for their goods, but get the advantage of better markets. An egg should never be sent to market unless its condition can be guaranteed. It is a good plan to date them each day as gathered. If a hidden nest is found, such eggs should be marked "D," meaning that their age is unknown, and their condition is in doubt; then take such to the kitchen to be opened and used if found all right. It is certain that careful methods will be the most profitable.

Never depend upon luck. Know your business. Keep strict accounts and records



Lulu Island Chicken Ranch.

But, on the other hand, they not only have a stale look, but a flavor entirely unfit for food.

For years the writer has fought this practice of holding eggs, not only on account of their unfitness as food, but as to the unfairness in competition with the industrious winter-laying hen.

It would not border so strongly on dishonesty if those eggs were labelled and sold as preserved or held eggs, for then the buyer would know exactly what he or she was getting. But the common practice is to sell them as winter-laid eggs. In some sections of the country dealers are compelled to guarantee the age or condition, but this rule is not universal. Surely it is a matter that deserves the attention of the pure food commission.

All these advertised "secrets" are nothing less than bids for dishonest practices. The poor of the cities are generally the victims. The writer has repeatedly said, and repeats again, that one-half of the population residing in the cities do not know how a fresh egg tastes. The guaranteed strictly fresh article is so quickly captured by the well-to-do people that the market seems to be supplied with nothing but aged, stale, preserved, pickled or stored eggs.

A Deceiving Sign.

"Fresh country eggs" is a sign frequently noticed in store windows, and to the uninitiated this appeals very strongly. Ordin-

eggs. Having free-range the hens make nests here and there, hidden from general view, and in these nests are found quite a number of eggs. Whenever discovered the entire lot is at once consigned to the market basket. If 12 eggs are found in such a nest, it is not likely that 12 hens that day laid those eggs. It is more likely that one hen took 12 days or more, if she is one of the average kind. The result is quite a number of bad eggs are sent in each shipment, to say nothing about the flavor of those that are otherwise good. No wonder epicures are beginning to become shy of "fresh country eggs."

The Safest Eggs to Buy.

The safest eggs to buy are those coming from the yards of a market poultryman. His fowls are kept in generous-sized runs, his houses are comfortable and clean, and the stock is kept exercising to keep them in good health. The feed they get is the best and purest of grains, meat and greens, and the water is given them fresh daily. The eggs are gathered one or more times each day, according to severity of weather, and there is no chance for the hens to hide their nests. The market poulterer rarely ever holds his longer than three days, while the farmer keeps saving up his crop until there are enough to make it worth while "to take them to town."

There is no reason why farmers cannot keep their flocks under more improved methods, and thus not only secure a good

and study them. Have application, patience, persistence, and be a hustler.

Breeding stock should be mated at least two weeks before saving the eggs for hatching purposes.

Do not forget that the careful observance of all the little details in poultry raising is what brings in the end the big returns. Every neglect is a cog removed from the perfect wheel of success in poultry raising.

Overcrowding causes fowls to sweat at night, and this soon rots the feathers at the roots. This is one reason why so many fowls shed feathers outside of the regular moulting season.

It is sheer folly to doctor a hen for any disease or ailment and allow her the freedom of the poultry yard. Ailing fowls should be treated in a great degree the same as human beings. When sick, not only is medicine a necessity, but rest is also required. A sick fowl running with the flock is a dangerous experiment, or, more correctly putting it, a very sure source for disseminating what may turn out to be a case of contagion. Pen up the sick bird and treat it as near like a human patient as possible.

To show the importance of purity in food, an experience of A. J. Hallock, the Long Island duck raiser, is worth quoting: "At one time a lot of ducks were sick, and off their feed; they were dying, and no cause could be discovered. All the ingredi-

ents of the soft food were thoroughly examined, and found to be all right, and it was a mystery as to the source of the trouble. Finally, one day the feeder happened to catch the odor from the sand they were using, and found to be very foul. It had been dug out of the bottom of the creek near where the ducks had run, and was supposed to be all right, but it proved that the leechings from the duck yards had flown down over it and rendered it impure, and this resulted in the trouble mentioned. The throwing out of this, and the substitution of perfectly clean, pure sand, remedied the difficulty.

The fresh egg beats to a froth easier than a stale one. It takes a longer time to boil a fresh egg than it does a stale one. The fresh egg, when boiled, will stick to the shell, while one a few days old will peel off smoothly. The stale egg is not so heavy as the fresh one, and the shell becomes shiny and smooth, probably from the little oil that exudes by evaporation from the contents of the shell.

The egg yield can be controlled by the feed and the manner of feeding. When fresh-laid eggs have an offensive odor when broken or cooked, it is time to examine the quality of food the fowls are getting. Onions, fish, manure piles and the like have a strong tendency to cause a bad smell and flavor in eggs.

The gluten products are residues of corn left in the manufacture of glucose. Gluten meals consist mainly of hard or flinty portions after the bran, the germ or chit of the corn kernel and part of the starch have been removed.

Malt sprouts are the dried shoots from germinated barley. Brewers' grains are the barley grains from which the starch has been removed by growth and fermentation. In fresh state they contain too much water to justify paying a very large price. Dried they furnish about as much protein as the malt sprouts.

Hominy feed or hominy chops consists of the hull, germ and part of the starch of corn grains, and contains less starch, about the same amount of protein, and more fibre and fat than cornmeal.

Pea meal is not quite so good a feeding stuff as the average gluten feed. It contains about 1 per cent. less protein, 3 per cent less fat, and nearly three times as much fibre.

In 100 pounds of bran, six pounds of ash are found. The ash material of wheat is almost the same as of corn. A bushel of corn contains about one pound of crude ash. One hundred pounds of oats contains three pounds of ash, being twice as much as the same amount of wheat or corn contains.

HOME-GROWN CHICKEN FEED

The product of the industrious hen is bringing fancy prices at this time, almost to the prohibitive point, due mainly to the feed question. Many poultry journals have this and that scheme for production of a cheap ration for the hen, that is now presenting the fancier the "golden egg," but rarely suitable for B. C. conditions.

Visit the "chicken ranches" and it is observable there are many small plots that are uncultivated, bringing in no revenue. These same plots can be utilized to the best advantage in the growing of feed for the hens, at little cost and labor that will hardly be missed. Wheat will do well and mature if planted in rows 10 to 12 inches apart, or sufficient width to allow ready cultivation with a hoe. It can be seeded

fairly thick. In sowing the grain in this way it stands up well, and when ready to harvest can be easily cut and bound into sheaves, the vacant space allowing a ready path for the harvester to walk between the rows without breaking any of the stalks. It can be put into stooks and dried, and then placed on a shed floor and the wheat separated from the straw with an old-fashioned flayel. Speltz is another grain that will do well seeded in this way, and well adapted to climatic conditions of British Columbia. This has been thoroughly tried and found practical.

There is also another item, that of the straw, which can be utilized in many ways around the poultry house, and latterly worked into fertilizer for the garden.

CANADA NEEDS MORE POULTRY GREAT BRITAIN MORE EGGS

At no time in the history of the Dominion has the necessary for increased production of eggs and poultry been more apparent than at the present time. The demand is unprecedented. This is true whether for export or for home consumption. Consumers generally, and even producers themselves, are eating more and more eggs. The average per capita consumption of eggs in Canada this year will be greater than ever before.

The market for Canadian eggs and poultry is very firm. Prices to producers are extremely high, but even at these prices trade is increasingly active all over the country. The prospects for a continued demand are very bright. The country is facing a shortage, not only of current receipts, but of Canadian storage stocks as well. So great has been the export demand that we shall be obliged to import to meet our own requirements. Increased production has never rested upon a more secure foundation.

That poultry on the farm are profitable needs no argument. Eggs now rank as a staple article in the products of the farm. Poultry flocks can be increased materially without much additional outlay for buildings and equipment, and the increased labor involved is not such as will bear heavily upon the time of those charged with the care of the stock. Some object to the present price of feed, but when it is considered that the selling price of the product is 40 to 60 per cent. higher than it was two years ago, the margin of profit is such as will compare favorably with that obtainable elsewhere on the farm.

We take this opportunity of thanking our numerous customers for the liberal support accorded to us throughout 1916, and trust that this support will be extended to us in the year to come.

Our aim has been

QUALITY, PRICE AND PROMPTNESS

To enable us to live up to this motto we have endeavored to secure as large a stock of papers, colors, etc., as is possible at this time, in addition to which we are adding to our plant one of the latest two-color lithographic presses, and we think we can faithfully fulfill all the reasonable calls made upon us.

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Barred Plymouth Rocks, White Wyandottes, S. C. White
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Have been winning in the recent laying contests. One of our pens averaged 220 1/4 eggs per hen in 365 consecutive days. Another averaged 218 eggs per hen in 355 consecutive days, and still another, in the hands of one of our customers, at an International Laying Contest, averaged 207 2-3 eggs each in twelve months.

Penty of individuals of our strain have records of 220 to 236 eggs in one year. No. 73 laid 103 eggs in 109 consecutive days. Her daughters laid 42 eggs in 43 days, 52 eggs in 54 days, 47 eggs in 50 days, and 47 eggs in 53 days.

Eggs for Hatching—\$1.50 per 15; \$2.75 per 30; \$4.00 per 50; \$7.00 per 100; \$60.00 per 1000. Baby Chicks a specialty.

Our new 1916 mating list, beautifully illustrated with photos from life, containing feed formulas, tonics, etc., is yours for the asking.

L. R. GUILD

Box 16,

ROCKWOOD, ONT., CANADA

Production Increasing.

Canadian egg producers have responded well to the call for increased production. The country as a whole, which was importing eggs a few years ago, has, in the aggregate, produced more than sufficient for its own requirements this year and last. Between seven and eight million dozen Canadian eggs were exported to Great Britain last year, and as an indication of what is going forward this year, nearly one million dozen were shipped during the first week of October. Yet the supply on the British market is still short, and there is a demand for many millions more. Increased production, more and better poultry, should be the motto of every Canadian farm and homestead.

Canada has all the requisites for the production of a quantity far in excess of her own requirements, and with her favorable climatic conditions can, with proper care and attention, produce quality equal to the best in the world. Only the fringe of production possibilities has been touched up to the present. The western provinces, with their volumes of cheap feed, are the natural home for the Canadian hen. The bulk of the surplus at the present time comes from the provinces of Ontario and Prince Edward Island. Nova Scotia, New Brunswick and Quebec do not produce sufficient for their own requirements. They must do more; and there is now an opportunity for the western provinces of Manitoba, Saskatchewan and Alberta to demonstrate to Canada and the empire as a whole what they can do in this connection in this great hour of trade expansion. The first experimental shipments of eggs from Winnipeg to the British market are either now, or soon will be, on their way, and it is hoped that the increase in production in the western provinces in the ensuing year will be such as to warrant the opening up of a big trade in this direction.

Eggs are scarce in Canada at the present time. Current prices are high, and a sharp decline immediately following the conclusion of the war is not anticipated. When prices advance gradually, as has been the case in staple food products, they decline slowly. It will take some years to re-establish the normal meat supply upon the markets of the world, and while prices of meats are high, people will continue to use increasingly large quantities of eggs. This condition will naturally be reflected in the matter of price. This is the situation. Readers may draw their own conclusions.

A little boy went to Sunday School for the first time. His mother gave him a nickel to put in the collection box. When he returned, he had a sack of candy.

"Where did you get the candy?" asked his mother.

"From the stand around the corner."

"But what did you buy it with?"

"With the nickel you gave me."

"But that was for Sunday School!"

"Well," replied the boy, "I didn't need it. The minister met me at the door and got me in free."

WHITE and COLUMBIAN Wyandotte, Light Brahms and S. C. White Leghorns. Over thirty years a breeder. Stock and eggs for sale.
MICHAEL K. BOYER,
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Write for our 1917 Calendar.

MARK DUMOND

1048 MAIN STREET

VANCOUVER, B. C.

The alleged young woman was out rowing with a possible suitor, and had taken her little sister, who was exhibiting much fear at the waves.

"Why, Martha, if you are so nervous now, what will you be at my age?"

"Thirty-nine, I suppose," meekly replied the little sister.

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City Marketing Methods Directly Affect Farmer.

Lack of Efficiency in Handling Produce May Result in Poor Prices for the Farmer.

The farmer has a direct interest in the efficiency of the marketing organization in cities, since lack of efficiency may be reflected in the poor prices he receives for his products. Sooner or later the great majority of the perishable produce raised on the farm for sale finds its way to the cities for distribution; and whether it passes from the ownership of the farmer before or after reaching such centres, the sales usually are based on city-quoted prices. Many farm products, especially perishables, are consigned to city commission merchants to be sold for what they will bring, the prices received in such cases being directly dependent on their city market values. Prices based on these values are paid also when such products are sold by the producer directly to wholesalers or jobbers after shipment to city trading centres. Even the products which the farmer sells at the nearest railroad station are bought largely for consumption in cities and so are paid for, in most cases, at prices which are dependent on those prevailing in city markets. The city, therefore, through the operation of city demand in relation to supply, largely determines the prices which the farmer receives for his perishable products.

Important Part Filled by Organizations.

The purely local marketing organizations of cities are more important elements in shaping these prices than is generally recognized by the farmer. Many perishables will not stand reshipment, and once in a city must be sold for the prices prevailing there. If, after products reach the cities, there are high marketing costs due to wasteful or inefficient marketing methods, there must be greater margins or differences between the prices received by producers and those paid by consumers. The economic machinery for marketing farm produce is such that many of the losses expressed in abnormal margins may be visited on the producer in the form of low buying prices, while others may be charged to the consumer through high selling prices. If, on the other hand, city marketing costs may be reduced through the employment of improved methods, economic laws should operate under normal conditions to give higher prices to producers and lower costs to consumers, while the movement of produce should be accelerated sufficiently to make marketing more profitable at the same time to wholesale and retail dealers.

Direct Methods Assist Farms on Small Scale.

These considerations in regard to the relation of city marketing to the farmer have to do with the marketing of farm produce in general by all farmers. There are, in addition, more specific ways in which the marketing machinery of the cities may affect the farmers living in their vicinities. Farmers within varying distances depending to a considerable extent on the condition of the roads, may haul their produce to such centres by wagons and market it directly with profit if proper facilities are available. Where such facilities have been furnished, the farmers may assemble their wagons at a particular market point and sell at retail to consumers who gather there to buy; they may stop at a point devoted to wholesaling and dispose of their wares to various kinds of dealers; or they may drive from house to house throughout a portion of the city, retailing to housewives.

Such methods of marketing are a distinct advantage to many general farmers living near cities who grow small amounts of truck and to the more extensive truck growers in such territory who do not specialize on particular products. Ordinary methods of marketing through shipments to wholesale dealers and commission merchants can seldom be employed profitably unless the producer ships given products in substantial amounts or associates himself with other producers for assembling shipments large enough to be handled economically by rail. Direct marketing in cities, therefore, opens up to the small farms of the surrounding country profitable lines of production which otherwise could not be followed, or results in the sale of surplus products which otherwise might be lost.

Government Experts Aim at Simplifying Problem.

Because of the importance of city marketing to the farmer in these various ways, the office of markets and rural organization of the department has taken up as one of its important projects, city marketing and distribution. Through this project the aim of the office has been to study marketing conditions in various cities; to determine as accurately as possible the sources of loss and waste in city marketing and the methods by which such losses and wastes may be eliminated; to develop general plans for efficient marketing facilities of various kinds for cities; and to aid by specific suggestions such cities as may seek assistance in improving their marketing conditions. In this work the office has sought to benefit alike all parties to marketing transactions by attempting to remove obstacles from the market channels so that a more rapid, more even, and less wasteful flow of commodities from producer to consumer will be possible.

The rail and water terminals in cities constitute the most important factors in their marketing machinery for farm produce, since the vast bulk of such products consumed in cities must be brought in by carload or boatload lots. Recognizing that such terminals are not arranged to best advantage in most cities and that to this are due some of the high handling costs and some of the important losses of commodities, the office of markets made terminal facilities the subject of one of its earliest investigations in city marketing. It has found that the uneconomic arrangement of terminal facilities is most pronounced in the larger cities, but that the fault is common to a greater or less degree in all cities of importance.

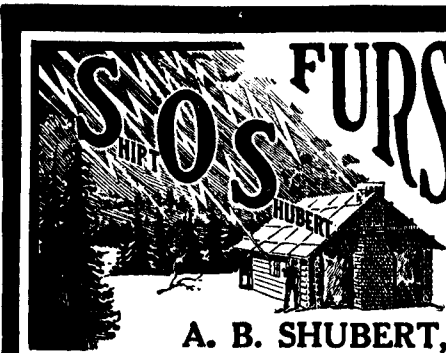
Multitudinous Terminals Add Greatly to Expense.

The general fault, it has been found, is the existence of numerous terminals separated from each other and from the wholesale store district or districts. In some instances as many as a score of separate terminals exist in a city. Shipments for a given dealer may arrive at a number of these terminals on the same day, necessitating much more costly cartage or the employment of many more salesmen than would be necessary if but a single terminal for perishables existed and the wholesale dealer had his store located conveniently to it. Every extra handling, every square of extra cartage, and every additional salary paid increases the labor cost of marketing, which must come out of the margin between the producer's selling price and the consumer's buying price. The extra handling, the jolting due to long hauls, often over rough cobblestone streets, and the delay in getting the products into retail trade channels greatly increase the losses due to bruising and decay of perishables, and so add still further to the marketing costs.

The aggregate losses and additions to marketing costs, due to inefficient terminal facilities, are so great in the average large city that market specialists believe it would be a feasible plan in many instances for the communities to promote and finance a separate terminal for perishables which would be connected with all railroads entering the city. Such a terminal might be built especially for the purpose or might be obtained by securing an existing railroad yard and warehouse which could be obtained by securing an existing railroad yard and warehouse which could be opened to the receipts of all railroads. It is also desirable where perishables enter a city by both rail and water that the terminal be established at a point convenient to both water and rail transportation facilities. A still more complete arrangement would call for a wholesale farmers' market near by, at which could be assembled produce brought from the surrounding country by wagons.

Only Few Cities Evolve Good Centralized System.

Terminal facilities of the type outlined might be owned by municipalities, railroad companies, private corporations or associations of dealers. At present terminals even approaching in form those described exist in only a very few cities of the country. Agencies in many cities, however, have taken up a study of the local marketing situations with a view to centralizing and otherwise improving terminal



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the largest house in the World dealing exclusively in American Raw Furs, where you will always receive an Accurate and Liberal Assortment, the Highest Market Prices and the usual "Shubert" Efficient, Speedy, Courteous service.

Write for the latest edition of "The Shubert Shipper" containing valuable Market information you must have.

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facilities for perishables. In this work the office of markets is co-operating with several of these local agencies and committees.

Study has also been devoted by the office to the facilities which have been provided in cities especially for direct marketing by farmers who haul their produce in by wagon, and to marketing facilities for perishable food products in general conducted more especially for the benefit of consumers. Such facilities, known usually as public markets, have been furnished in some form, it has been found, in nearly 200 of the 584 cities of more than 10,000 population existing in the country. Three types usually are recognized—the farmers' retail curb or shelter market; the farmers' wholesale curb or shelter market, and the public inclosed or booth market.

RAISE SHEEP

The election of President Wilson had a sentimental interest to many in this country because of his supine attitude in regard to the war. However in this respect Mr. Hughes seems to have appealed with success to a pretty substantial German vote, as the Milwaukee returns show.

But President Wilson's re-election means in all probability a continuance of the Underwood bill, whose provisions are of great benefit in enlarging the markets for our shingles, fish and wool.

This latter commodity should be developed much more actively in this province than at present. The country is ideal for the raising of sheep, and returns recently published show that the tariff has so stimulated export that the supply is inadequate for the home mills.

Since 1913 the exports to the United States in wool have sprung from 978,406 pounds to 4,566,748, while the local consumption has by no means kept step, having advanced from 19,930,764 in 1913 to 28,037,981 in 1916.

There is a hint here for both grower and manufacturer.

A HOME MADE WATER SYSTEM WHAT IS NEEDED FOR THE WOMEN OF THE HOUSEHOLD.

Thousands of Farmers Could Instal System
Without Much Trouble.

Only two and one-half per cent. of the 400 farmers visited in connection with the agricultural survey of the commission of conservation in 1915 had the complete service of water on tap, bath and toilet in their houses. Five per cent. had automobiles; 38 per cent. had pianos, 32 per cent. had organs, and 22 per cent. had gasoline engines on the farm. While it is well that 70 per cent. possesses sufficient musical interest to have either a piano or organ in the house, it is regrettable indeed that 39 out of 40 have not installed the water service and bath.

No investment yields more in conserving the women's health and strength, in creating greater home comforts, and in elevating the general tone of the material side of living than the installation of water service and the sanitary conveniences in the home. Thousands of farmers who could well afford to do so have not put in the service for various reasons—because they have not thought of it, or because they do not know how to go about it, or because they think it too expensive. The cost is

not so great as many imagine. A bath tub can be purchased for \$10, a sink basin for \$3, a closet for \$16, a 30-gallon hot water tank for \$10. Various means are employed in obtaining pressure at the taps, such as a force pump to elevate water to a tank in the attic, or the pneumatic tank in the cellar, and the cost of piping and installation will vary, according to circumstances.

One farmer had the hot water attachment, tank, bath and dry closet installed for \$50, the farmer himself helping the plumber to do the work. The complete service, which would be used 365 days in the year, can be installed on the average farm for less than the farmer pays for the binder he uses for a few days at harvest time and which stands idle for the balance of the year. The man on the farm thinks he cannot get along without the many labor saving devices. How about a labor saver for the farm women? It is unquestionably a common sense business proposition to have the water service and bath in the house as a comfort to every member of the family and a constant labor saving convenience for those who do the daily recurring work of the household—the farm women.

Everything had gone off splendidly at the christening, and the small infant had been given the name of "Reginald Homer." The party had retired to the vestry, and the clergyman was making out the certificate. When writing down the second name he said,

"Strange," he thought, "to find this name given to the son of a navvy." Aloud he said to the father, "Your favorite poet, I suppose?"

"Poet!" said the man. "Poet, sir? Lor' no, sir; I keeps pigdins.—Farm and Home (British).

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Low Freezing
Stumping Powder

CORRESPONDENCE SOLICITED.

Write for Pamphlet



Synopsis of Coal Mining Regulations

COAL mining rights of the Dominion, in Manitoba, Saskatchewan and Alberta, the Yukon Territory, the North-West Territories and in a portion of the Province of British Columbia, may be leased for a term of 21 years, renewable for a further term of 21 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 may 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 shall be furnished at least once a year.

The lease shall include the coal mining rights only, rescinded by Chap. 27 of 4-5 George V. assented to 12th June, 1914.

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.—83575.

The Swede, who had applied for Cuban citizenship, was asked if he knew the difference between a king and a president.

"Yes," said Yon intelligently, "king, he ban got steady yob."—Cuban Times.

"Have you studied the plays of Sophocles?" asked the serious young woman, as reported in the Washington Star. "Quit jokin'," replied Mr. Lowbrow. "I know everybody in both leagues. There ain't any such player."

Growth of the Silo Idea

Once Scoffed at the Little Tower is Now Catching on with Increasing Rapidity.

Some one has said that the difference between cattle feed stored in a silo and that cured in the ordinary way, is as the difference between fresh fruit and the dried variety, and when one is aware that the comparison is a good one, it does seem surprising that farmers as a body have not been faster in taking the idea up.

The silo is very old as an idea, but comparatively new as a practical institution. For centuries the dairy farmers of Europe had used it in a small way. With half a dozen cows, a mild winter and a moist summer climate, they got along very well with the home-made silo—a pit in the ground holding some root crops with which to piece out the ration. They had nothing like our corn with which to make silage, and their silos could never be built very high, because they had no modern elevating machinery with which to fill them.

The idea of the silo has been forming in this country for years. Enthusiastic pioneers among the farm writers and investigators have preached its gospel so steadily that most farmers know something of its advantages. Splendid labor-saving and cost-cutting equipment for the advancement of our dairy and livestock industry have been invented and brought into use during the past few years, but it is safe to say that none of it is more deserving of vigorous promotion than the silo.

In the United States more than 50,000 silos were erected in 1914. The Province of British Columbia has only 300. This seems like a very small number, but when it is remembered that practically all of these have been erected during the past two or three years the record may be considered encouraging. In the year 1913 the provincial department of agriculture started a campaign on the growing of corn and other ensilage, and made a series of demonstrations on the erection of silos. Previous to that there were possibly not more than 20 silos in the province. But 300 silos in this big province of British Columbia are by many hundreds too few, and at the rate they are now being put in it will be a long time before every farmer who ought to have one has been supplied.

Makes the Farm Bigger.

The first conception of a silo was, that it provided a way to keep green roughage to be fed during the winter, and this idea made its way slowly against prejudice, and the mistaken notion that silage imparts a bad flavor to milk, so making it difficult to produce good butter and cheese. This superstition has now almost disappeared.

A silo does various things. It can be made to simplify the labor problem amazingly. Perhaps more silos have been installed for that reason than for any other. The farmer faces scarce and expensive labor, and turns to the silo because it gives him feed that can be harvested in a few days with big modern machines. It is faster and cheaper than haying, and makes it possible to exchange labor with neighbors during a brief period of concentrated work.

The silo increases the acreage of a farm. One acre of corn and a silo are estimated to be equal to several acres farmed to grain and hay. This reduces the investment in land and machinery, and cuts labor costs, taxes and overhead

expenses all round. Many men have been able to make a start in farming on a moderate capital with the help of a silo when they might have remained tenants if compelled to finance themselves under the expensive system of many acres in grain and hay. A story is told of a man who, through ill-health, was compelled to give up running a big general farm. His doctor told him he would have to get lighter work. He moved to town and drove a team for several years.

But he wanted to be his own boss. So he bought a house, barn and four acres of bottom land in pasture on the edge of town. With this bed-quilt farm and two or three cows pastured on the grass, he was able to feed purchased hay and grain and make as good a living selling milk over a route as he had made at teaming. He did so well, in fact, that he wanted to earn more money by keeping more cows.

Now land in that part of the town sells for \$600 an acre, and very little is available at that price. But by investing \$150 in a 30-ton silo, the price of only a quarter of an acre, he was able to increase his herd to six cows. For he could buy silage corn from farmers on cheaper land farther out. His cows were earning a gross profit of a dollar a day each. He wanted more of them. A chance came to buy two more acres of pasture, and then, by adding another silo for summer feed, he was able to increase his herd to ten cows. Ten cows on six acres of land would seem to indicate a well-planned and well-managed place.

Another big issue is summer silage. "When the average farmer will keep silage the year round, when he will as soon think of having an empty grain bin as an empty silo. Silage is a staple food as easily kept as grain or hay, and more profitable. Farmers will soon come to regard it in the same way as those crops."

In certain of the American states the summer silo is fast coming into general use, and serves a double purpose. It pieces out any shortage of hay during the early summer and counteracts dried-up pastures later in the season. In many of these places the greatest obstacle to the livestock industry is the shortage of summer forage during the dry periods. The growth of cattle is checked through starvation and heavy bills are paid for loss in weight and quality. The silo is filling the want in these respects.

Interest in Livestock.

There is a national revival of interest in livestock, and the ideal farm of today, as pictured by some authorities, is a balanced farm, with a foundation in livestock. Its products are balanced, insuring one another against market and weather fluctuations, and making the income less uncertain. The fertility of the farm is balanced because less fertility is sold. Such a balanced scheme of farming turns on the silo as a pivot, for all the livestock can be fed out of it, and the best paying crops are those that can be put into it. The silo is as a balance to a sound scheme of farming.

If you go in for dairying or stock raising and haven't a silo, get one. It will mean a big increase in your milk or beef yield

Weight Versus GAS

To offset the high price of gasoline, the best engineering talent in the world has perfected light-weight steels and scientific body construction. Despite its scarcity, aluminum is largely used. Weight reduction has been accomplished in every part of the car except the top.

All that is needed in a good top is found in

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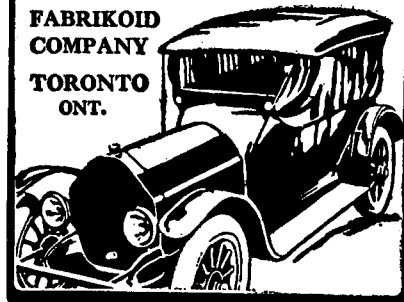
Single Texture Topping

It is guaranteed one year against leakage. No top has a finer appearance, and although light in weight, it has the required strength and is made to last as long as the car.

Specify RAYNTITE Single Texture Topping for your 1917 car or re-top your auto with this guaranteed, light-weight, long service top material.

Ask for free booklet "The Top Question" and samples of Rayntite Topping.

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ONT.



during the winter months or the dry seasons. The cost is not great and the government gives effective assistance by supplying plans and specifications. The greatest expense is the cutter and blower for filling, and it is suggested that a number of farmers in one neighborhood might build silos and get together in the purchase of a cutter and blower to be used cooperatively.

A PIE HINT

When baking very juicy pies sift a layer of fine breadcrumbs over the lower crust before putting in the fruit. This will ensure a crisper lower crust.

CLEANING WHITE FUR

White or light-colored furs may be cleaned splendidly with hot bran or corn-meal. Shake out well, repeating if necessary. White felt hats may be cleaned the same way.

VETERAN SEEDSMAN RECOMMENDS HOME PRODUCTION OF SEED

Mr. M. J. Henry, the veteran seedsman and nurseryman, who conducted the Henry

strated the fact that they can be produced in B. C. equally as good as the imported varieties. B. C. is about the only section of Canada where garden and field peas can be grown without being infested with the pea weevil, which injures the vitality of the

belia, phlox, double tinnias, petunia, alysum, sweet peas in variety, digitalis and many others; and it is only a question of time and ability when the West is producing a large share of the seeds used by the Eastern and local seed houses, which they now import from foreign countries.

On his California place, Mr. Henry has been producing early snowball cauliflower seed equal to any ever imported from Germany or Denmark, and he is now going into it more extensively as soon as he arrives there. Over ten thousand acres are now devoted to seed-growing in California and there is no earthly reason why British Columbia should not grow her share. We have the climate and soil.



Spanish Iris.

Nurseries for some 26 years on Mount Pleasant, this city, is leaving this week for his California home for the winter.

He has been living on his property at Chilliwack during the summer and fall, and also rented some more land, on which he has been growing garden and flower seeds, and his experiments have demon-

strated the fact that they can be produced in B. C. equally as good as the imported varieties. B. C. is about the only section of Canada where garden and field peas can be grown without being infested with the pea weevil, which injures the vitality of the eastern-grown seed. Cabbage, sprouts, turnips, parsley, parsnips, beets, mangels, cress, spinach, cucumbers, corn, celery, beans, all produce and ripen their seed in perfection. Celery ripens more plump seed than the imported varieties. In flower seeds he has successfully produced and cured, aster in several varieties, forget-me-not, marigold, lo-

CONSERVATION OF FERTILIZER

Waste of Liquid Manure.

While manure is only a by-product on the farm, it is the farmers greatest asset in the maintenance of soil fertility. That it is not properly valued and given the care that it deserves is strikingly shown by the results of the agricultural survey of the commission of conservation in 1915. Seventy-seven per cent of the 400 farmers visited in Ontario were exercising no care to prevent waste of manure, 22 per cent claimed to be exercising some care, while less than 1 per cent claimed to be exercising really thorough care of the manure. Only one and one half per cent were saving all the liquid manure, which contains more actual plant food than the solid excrement. The annual loss amounts to millions of dollars and it can be readily seen that our system of farming is not on a sound basis if this waste is allowed to continue. Any farmer who knows these facts, but takes no steps to prevent the waste, commits an injustice against himself and his country, and is preparing to leave to succeeding generations a heritage of poverty.

This loss can be prevented in several ways. Now at the beginning of the stabling season, prepare a supply of litter to absorb the liquid manure. As the straw crop is short this year it is advisable to store a quantity of leaves, dry sods or saw dust for this purpose. Where circumstances permit, it is a good plan to draw the manure to the field as made. If it has to be piled, see that it is piled so as to prevent heating and leaching. Mix the cow manure and horse manure together and keep the pile compacted and level on top.



Blue Ribbon Tea is Nicer

“Surely Silver Spoons are Cheaper”

You would have thought Stewart had lost a penny and found a diamond ring, the way he was laughing. “And so would you laugh,” he said, “if you’d heard it.” It was what Mrs. Mitchell told him. “A tea pedlar called sure enough,” she said, “a mighty generous one.” It appears he was selling tea and giving away a silver spoon with each pound, and he talked like a reg’lar machine. “Mind you,” said Mrs. M., “had I been twenty years younger I might have fallen for it (the spoon) but I’m too auld fashioned now.” Once before she’d been talked out of Blue ribbon Tea, but she says she won’t forget that in a hurry. “No,” said Mrs. Mitchell, “I just told him plainly I wouldn’t change even if he was giving away a gold watch with his tea.” And mind you, as Isaac Goldberg says, “A gold watch is a gold watch.” Yes, but you canna’ drink them when you’re tired and thirsty.

Say, surely teaspoons are an awful lot cheaper than they used to be—in spite of the war.

Jeanie Deans

Many Applications for Farmers' Loans

Agricultural Credits Commission Has Approved of Loans
Aggregating \$234,430.

To date loans aggregating in amount \$234,430, and in number 144, have been granted by the Agricultural Credits Commission, while 1041 applications, aggregating \$2,175,445, have been received by the commission and appraisal of the properties covered by 464 applications of an aggregate of \$1,078,605 has been completed.

Hon. William Manson, minister of agriculture and temporary superintendent of the commission, has compiled a statement of the work of that body to date. It shows that the farmers of the province have been quick to avail themselves of the opportunity to secure loans at reasonable rates of interest under the terms of the legislation passed by the government, whereby government aid to farmers is authorized. The province earlier in the year borrowed \$1,000,000, and is loaning it out at the favorable rate of 6.5 per cent. As was inevitable, many applicants for loans have been unable to secure them because they do not come up to the standard required by the commission, which is granting loans only to those who meet with the requirements set by the commission.

The following table shows how the applications to date have been dealt with:

	No.	Average.	Amount.
Received	1041	\$1,554	\$2,175,445
Appraised	464	2,324	1,078,605
Granted	144	1,628	234,430
Withdrawn	7	2,368	16,575
Refused	142	2,425	344,408
Held over	121	3,078	372,450

A great many applications are being received where the money is to be used for the purpose of paying off existing mortgages. The policy of the commission, with the limited amount of money at its disposal, is to give first consideration to applicants where the money is to be used for purposes that will tend definitely to increase agricultural production, therefore the applications for money to be used exclusively to pay off mortgages are being held in abeyance for the time being.

Encourage Production.

The policy of the commission, too, has been to grant the applications for smaller amounts, thus making the fund go further and achieving the object aimed at, viz., to encourage the greatest number of farmers and thus increase production. The loans so far issued run as follows: Five for \$250; two for \$300; twenty-one for \$500; two for \$600; three for \$750; two for \$800; two for \$850; twenty-six for 1,000; four for \$1,200; twelve for \$1,250; one for \$1,300; sixteen for \$1,500; four for \$1,800; sixteen for \$2,000; one for \$2,280; eight for \$2,500; four for \$3,000; two for \$3,500; four for \$4,000; one for \$4,250; six for \$5,000; one for \$5,500; one for \$8,000.

The bulk of the loans made are for long terms, the longest period for which a loan may be granted being 36 1-2 years. The straight loans so far made are for the following terms. Three for three years; 28 for five years. On an amortizable basis the following loans have been granted: One for 7 years; three for 8 years; one for 9 years; forty-two for 10 years; thirty-two for 20 years; fourteen for 30 years; twenty for 36 1-2 years.

Long term loans for 20, 30 and 36 1-2 years may be made on the amortization plan, interest and principal payable half-yearly. Short term loans may be made for from three to ten years, which need not be amortizable. The commission has de-

ecided that for the present, while it prefers that all such loans should be amortizable, yet it will grant straight loans for three, four or five years, interest payable half-yearly, and that loans from six to ten years must be payable on the instalment plan, the same as the long term loans for 20, 30 and 36 1-2 years, interest and principal payable half-yearly. Borrowers have the privilege of paying off, in addition to the regular half-yearly payments, \$25 or any multiple of \$25 from time to time on

any interest date, in reduction of the mortgage.

The commission has at present five appraisers in the field in various parts of the province, and every effort is being made to complete the work of appraising before the winter weather sets in. Two of the directors of the board have spent considerable time in the field with the appraiser for the purpose of obtaining first-hand information regarding agricultural lands and conditions throughout the province, and also in assisting the appraisers to establish a proper basis of valuation. The reports of these appraisers are being received at the head office in Victoria weekly, and the commission is passing upon the applications as the reports arrive.

Canadian Northern Railway

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LEAVE VANCOUVER

9.00 A.M. SUNDAY..... WEDNESDAY..... FRIDAY 9.00 A.M.
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EDMONTON AND PRAIRIE POINTS. NEW AND MODERN EQUIPMENT. ELEC-
TRIC LIGHTED STANDARD AND TOURIST SLEEPING, DINING AND COMPART-
MENT OBSERVATION CARS.

DAILY LOCAL SERVICE
7.00 p.m. Leave.....VANCOUVER.....Arrive a.m. 11.00
9.45 p.m. Arrive.....Chilliwack.....Arrive a.m. 8.15
11.00 p.m. Arrive.....Hope.....Leave a.m. 7.00

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If you wish to eliminate that "SAWDUST NUISANCE" in your berries this season, write for samples and prices of our "Standard" Rotary Cut Berry Crates.

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WOMEN'S SECTION

British Columbia Women's Institutes

Motto—"FOR HOME AND COUNTRY"

Penticton, Thursday, Oct. 19.

The Women's Institute have taken up in a practical way the work of assisting the Army Y. M. C. A. Following the visit of the leaders of Y. M. C. A. work in the Vernon camp, who came here a few weeks ago and spoke at a public meeting, a committee consisting of the ministers of the various churches and three members of the Women's Institute was appointed to take the matter in hand. It is planned to map out the town into districts and make a thorough canvass soliciting help for this excellent cause.

The general meeting of the Kalamalka Women's Institute will be held at the Agricultural Hall on Wednesday, October 25th, at 3 p.m. A paper on the Laws of B. C. as Affecting Women and Children will be given by Miss Irvine. A cordial invitation is extended to all.

Cowichan Women's Institute.

At the Cowichan Women's Institute meeting, Nov. 14th, the joint committee appointed at the recent Victoria conference to consider what industries can be established in rural island centres, held a lengthy session. Miss Alice Ravenhill spoke on institute work, and the Rev. A. F. Munro delivered an address on Socrates.

Cowichan Women's Institute.

There was a good attendance of members of the Cowichan Women's Institute at the first social evening held Nov. 8th. The institute piano was well patronized, and other music was also provided. The latter part of the evening was spent at bridge. It is the purpose of the institute to continue these weekly social evenings throughout the winter from 7:30 to 10 p. m. Members free, friends with them, 10 cents each.

Women's Institute Anniversary Meeting.

The Chilliwack Women's Institute held their monthly meeting at the home of Mrs. J. T. Maynard, on Oct. 25. This was the anniversary meeting and was exceptionally well attended in spite of the inclemency of the weather. A report covering the convention held recently at Cloverdale was given by the secretary of the Chilliwack Institute, Mrs. Dusterhoeft, and Mrs. W. V. Davies read the resolutions adopted by the convention. Mrs. Collins entertained those present with a delightfully rendered instrumental. Refreshments were served by the social committee.

Shawnigan Lake.

The Shawnigan and Cobble Hill Women's Institute met at Shawnigan Lake on Thursday, Nov. 16., when a fine afternoon favored a good attendance to hear the well-considered report of the official delegate to the recent conference of Island Institutes in Victoria. Mrs. Wheelton dwelt briefly on the leading points of the various papers, and spoke of the keynotes of the conference, co-operation, kindness and efficiency.

Much interest was aroused by the important letter, addressed to the Women's Institutes of the province by the provincial board of health, in connection with the

sanitation of rural schools, which was referred to a sub-committee for consideration. The programme committee presented its suggestions for the 1917 programme, and it was resolved to collect \$2 a month during the war in aid of the Y. M. C. A. Military Camp work in this province; and to devote the proceeds of the teas at the two monthly meetings to the support of a starving Belgian family, in addition to the pledges already given.

Details of the Christmas Fair in aid of the Red Cross funds were laid before the meeting, and every kind of assistance solicited. The good results of "Tag Day," \$46.80, were announced, the total Red Cross receipts for the month amounting to \$72.90. The usual consignment of work had been despatched. A practical demonstration on "How to Make a Hay Box Cooker" was given by the secretary, Miss Alice Ravenhill, and was warmly welcomed by those not previously acquainted with this convenient aid to comfort and economy.

Women's Institute Meets.

Central Park Women's Institute held its regular monthly meeting Thursday, Nov. 16. After the routine business was disposed of the resolutions adopted by the Women's Institute conferences at Cloverdale and Victoria were discussed and endorsed. Mrs. J. B. Todrick reported for the relief committee and also expressed the need of a creche in South Vancouver. The Red Cross department, under Mrs. Summers, gave a very encouraging report, especially of the Beaconsfield branch. Miss Ellory Stapleton gave a recitation, "Christmas Secrets," which was much enjoyed. The topic "Christmas Suggestions" was then taken up, and various articles were displayed, useful and ornamental and all inexpensive. The making of each was explained, and a very interesting time spent. After announcement of a tea at Mrs. Ormiston's, Beaconsfield, on Tuesday, in aid of the Institute Red Cross funds, tea was served and a social half-hour spent.

Hatzic Women's Institute.

On Thursday, Nov. 16, the Hatzic Women's Institute held their regular monthly meeting at 2 p. m., in the Hatzic hall, when after the usual business Mrs. McTaggart read a most interesting paper on "Canadian Authors," and the second prize paper on "Our Flag" was read by Jocelyne Fripp and Gordon McEwen; later in the evening the institute entertained their "menfolk" to dinner—an idea which they had planned at the beginning of the year, and which was carried out with great success that evening, when between 60 and 70 people sat down to a most excellent repast, which had been arranged and was served by a special committee of the members.

There were two or three speeches, interspersed with delightful music, songs and recitation, but the address of the evening was given by Mr. Scott, who was good enough to pay Hatzic a special visit for the purpose of dining with us, and giving us the most interesting talk afterwards. The programme was as follows: "The King," God Save the King; "Our President," the Reeve; violin solo, Mrs.

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This is the 14th Annual Holiday Sale in which at least 20 per cent. is taken off every price in the store.

Read This List Carefully

Silk Ankle Hose, in all shades, 25c and 50c.
Phoenix Silk Hose, in all colors, per pair, \$1.00.
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Cotton Crepe Jackets, embroidered, \$1.25 and \$1.75.
Silk Kimonas, embroidered, \$6.95 to \$45.00.
Silk Jackets, embroidered, from \$2.50 to \$9.75.
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Linen Embroidered Cushion
Tops, with back ready to
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Linen Centre Pieces and Doyleys, from 15c to \$10.00.
Tea Cosies, 60c to \$5.50.
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Ladies' Linen Handkerchiefs, 15c each to 50c.

Box of 6 Ladies' Embroidered
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Madeira Embroidered Luncheon Sets from \$5.00 to \$19.50.
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We find that silks are being used in the making of Xmas gifts more extensively this year even than last. We will be glad to send you samples of any kind of silk, in any color. If you do not know the name of the silk tell us what you intend making and we will send samples of suitable materials.

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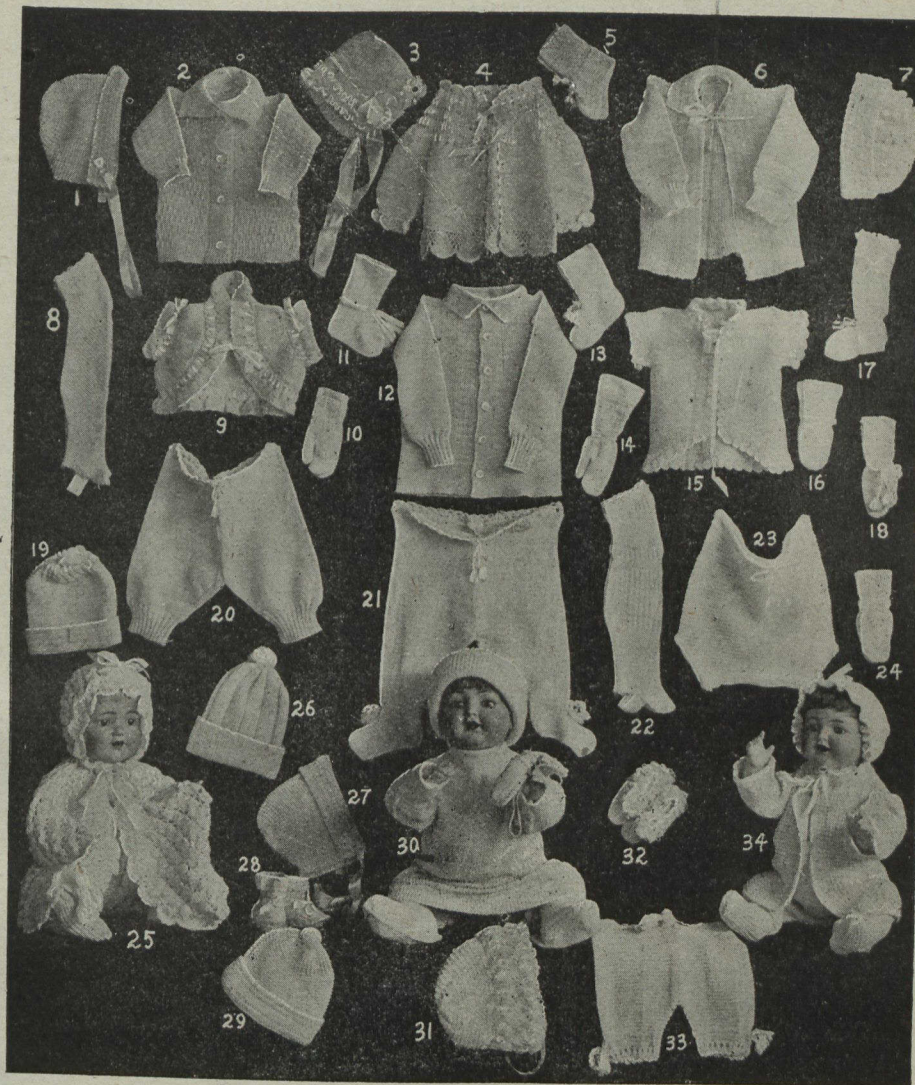
Shook; "Our Guests," Mrs. Fripp, replied to by Mr. Oliver; song, Mr. Catchpole; "The Institute," Mr. Moody, Mr. Scott; recitation, "O, Canada," Mrs. Ferguson.

Upper Sumas Women's Institute.

A concert was held in St. Paul's Church at Huntingdon on Oct. 13th, under the auspices of the Upper Sumas Women's Institute, when \$50.00 was realized for "Our Day" Fund. The committee in charge—Mesdames Purvis, Cobley and McMurphy—is to be congratulated on the success of the evening, while Mr. J. MacMurphy was all that could be desired as chairman. Conducting a prettily decorated candy booth, Miss Annie Hart and Miss Edna King, dressed as Red Cross nurses, greatly added to the success of the evening. All present enjoyed the following programme, after which refreshments were served. Instrumental trio, Miss Gillies, Mrs. Brigham and Miss Millspaugh; duet, Longfellow and Davidson; annual report of Women's Institute, Mrs. Fadden; song, "We'll Never Let the Old Flag Fall," Grace Roberts; recitation, Annie Hart; song, Mr. Blair; instrumental solo, Miss Steade; song, Mrs. Rayburn; reading, Mrs. Fadden; song, Mr. Davidson; Indian club swinging, Miss Henry; song, Mr. Blair; recitation, Mrs. Winson; Victrola selection, "Keep the Home Fires Burning" "God Save the King."

Gordon Drysdale
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Superior Quality—Infants' Woollen Goods.

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| No. 1—Infants' Hand Embroidered Wool Bonnets, with soft satin strings. \$1.25 | No. 18—Infants' White Wool Mitts25 |
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| No. 7—Hand Crochet Wool Cap 1.25 | No. 24—Viyella Wool Infantees35 |
| No. 8—White Wool Gaiters, sizes 1 to 385 | No. 25—Infants' Hand Crochet Wool Caps, with hood attached 2.00 |
| No. 9—Infants' Wool Jacket, threaded with sky or pink satin ribbon... 1.50 | No. 26—Hand Knit Wool Cap, white and pink or white and sky 1.25 |
| No. 10—Infants' White Wool Mitts25 | No. 27—Infants' Hand Knit Wool Bonnet, with soft satin strings 1.00 |
| No. 11—Infants' White Silk Booties50 | No. 28—Infants' Hand Knit Wool Boots, in white and pink or white and sky, threaded with soft satin ribbons 1.00 |
| No. 12—Infants' Hand Knit Wool Jacket, white with sky or pink 3.50 | No. 29—White Wool Cap, edged pink or sky65 |
| No. 13—Wool Crochet Booties50 | No. 30—Wool Suits, in three pieces, overalls, jersey and cap, in white, grey or teddy 3.75 |
| No. 14—Infants' Wool Mitts35 | No. 31—Infants' White Wool Bonnet50 |
| No. 15—Infants' Hand Knit Wool Jacket, edged with sky or pink silk and wool 3.00 | No. 32—Infants' Silk and Wool Boots.... .75 |
| No. 16—Infants' Wool Mitts30 | No. 33—White Wool Overalls 1.00 |
| No. 17—White Wool Booties35 | No. 34—Infants' Silk and Wool Jacket, with hood, threaded with sky or pink satin ribbons 2.00 |

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Washes anything from finest laces to heaviest blankets or overalls equally well and without wear or tear—saves rubbing and washboard drudgery—can be used for rinsing, blueing or dry cleaning.

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Private Nurses Easily Earn \$25 Weekly.

Conveniently learned without leaving home. Booklet free. Royal College of Science, Dept. 127, Spadina Ave., Toronto, Canada.

Perfect Teeth mean Perfect Health



GENERAL ill-health and most of the diseases to which the human being is subjected are brought about by failure to live according to natural laws. Man was never intended to live a life of inaction, and if he would retain his bodily and mental function he must breathe fresh air, exercise and eat correctly . . . and the fault to which he is most prone is the failure to eat properly—to masticate his food thoroughly. Modern conditions and modern foods are cause of bad teeth—and bad teeth are the cause of most bad health. . . . When the teeth begin to decay, the food is not only improperly prepared for the stomach but is **ACTUALLY POISONED** by the decaying matter which enters the stomach with the food. . . . Rheumatism, appendicitis, heart and kidney troubles, all stomach troubles and even the deadly **CANCER** have been found to be caused in the great majority of cases by bad teeth and unwholesome mouths.

The remedy is plain—put the mouth in perfect condition and your whole body in perfect health. . . . If you have neglected your mouth you should see to it at once that you get **PERFECT DENTISTRY**.

"PERFECT" is the name I have given to my dentistry, and for the reason that I guarantee it to be **REALLY PERFECT** in every way, to fit your own ideas of perfection and mine. . . . I mean that whether in the form of **PLATES** or **CROWNS AND BRIDGES** it represents the very highest accomplishment in dental science and art . . . perfect in fit, in wear—in materials, in workmanship, in appearance—in permanency. . . . Money cannot buy better. I guarantee this—the wearers of my "Perfect" dentistry will not suffer the handicap of an unwholesome or imperfect mouth for at least ten years.

"PERFECT" CROWNS AND BRIDGES

Wherever there are a sufficient number of sound teeth re-
I have made special arrangements for taking care of out-of-town patients so that there is as little delay as possible. Appointments may be made by letter, telegraph or long distance phone.

NO CHARGE FOR CONSULTATION AND ADVICE

DR. LOWE, Vancouver's Greatest Dentist.

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Opposite Woodward's

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maintaining in the mouth the **BRIDGE** is the most desirable method of making the mouth perfect. Gold crowns are used as the supports or "piers" for the bridge, which is composed of teeth taking the place of the ones removed—taking their place so precisely that the mouth is restored to its condition of perfect shape and health. There are no crevices in which food may gather and decay, and the new teeth as firm and natural as your original teeth.

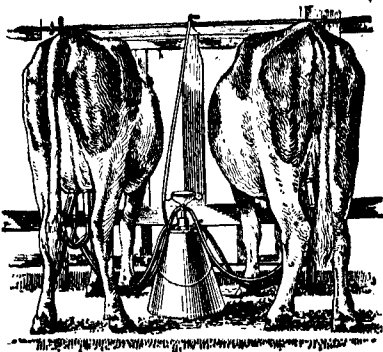
"PERFECT" PLATES

When the teeth are so far gone that it is not practical to build a bridge the **PLATE** is used to put the mouth into perfect condition. The plate has been so perfected that it no longer is apparent that the wearer is using artificial teeth. The base of my "Perfect" plates is the very finest English vulcanite—so light and strong that it clings closely to the roof of the mouth and the gums and does not interfere in any way with the functions of speech or mastication. The natural appearance of the teeth themselves, their conformation to the shape of the face and the shape and shade natural to your coloring and face-type make them really perfect. . . . They defy detection as artificial.

EXTRACTIONS

Extracting, as well as all other dental operations, are now accomplished without the slightest pain and discomfort, so far advanced has the science of dentistry become. Decay should never be allowed to go on in the mouth and extracting and filling should be attended to immediately. In the case of crowns and bridges, as well as in plates, the teeth should be drawn and the mouth prepared at the earliest possible moment—the work may be done later. Bridges should be built in so that the new teeth may be placed in the spaces of the old ones. In this way the gums heal around the new teeth evenly and perfectly.

EMPIRE MECHANICAL MILKER



One man, using only one double unit, can milk 20 to 30 cows per hour, besides doing the stripping and carrying the milk. Single Units, each of which will milk 10 to 15 cows per hour, can be had if preferred. One man can operate two or three single units.

Heifers and old cows both like the **EMPIRE** Milker and take to it quickly. The frequent increase in milk flow proves that.

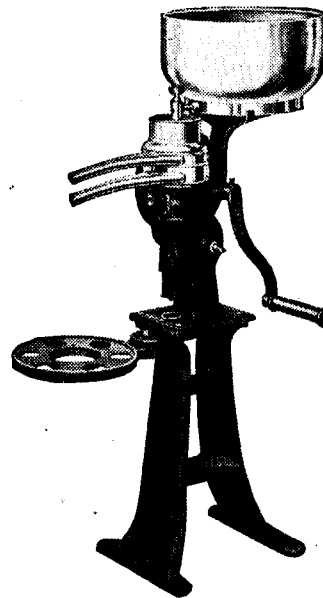
The illustration shows you the Double Unit Outfit in actual operation, except for the small pump and tank which supply the vacuum. Any suitable power will drive the pump.

Hand milking is a hard job in cold weather, in fly time, after a hard day's work or any other time—especially hard when you are short-handed. The **EMPIRE** Milker takes care of a job nobody likes. Pays you a handsome profit. Insures your cows being milked regularly, quickly and uniformly. It's good-bye to hand milking and everybody glad of it.

The **EMPIRE** Milker is a fine machine. Absolutely reliable. Successful everywhere. Guaranteed by the Empire Cream Separator Company. See for yourself how simple, sure and reliable it is. Will be glad to show it to you at your first opportunity.

Gently massages the teats after each spurt of milk. Does not use compressed air. Only one pipe line needed—it can be run where ever convenient.

EMPIRE CREAM SEPARATORS



Absolutely satisfy the men and women who are looking for quality and who judge construction and fine workmanship by the "sound" and the "feel" of the machine when running.

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are remarkable for smooth, quiet running.

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NARAMATA INSTITUTES
GRADE SCHOOL SITE

Grounds and Front Approach of the New
\$10,000 Structure Put in Shape by
Volunteer Workers

NARAMATA, B. C., Nov. 22—The grounds at the front approach to the new \$10,000 school have now been all levelled off and nicely graded, through the combined efforts of the Farmers' and Women's Institutes, working under the direction of a joint committee in full accord with the school board.

The day set for the proposed improvements was Thursday, November 16, but when the afternoon showed what a lot of good work could be done in one day, it was unanimously agreed to spend Friday as well at the grounds.

The result is that there was such a decided improvement made that the work will be done again next year.

The ladies appeared each day at noon and served a substantial lunch in the basement of the school, and again in the afternoon with sandwiches and tea.

Everyone seemed to regard the work as so much relaxation. In a word, work was turned into play.

The committee of the Farmers' Institute was composed of Messrs. William Nuttall, E. H. Hancock and R. H. King. The committee of the Women's Institute was composed of Mesdames M. M. Allen, Myers, Rounds, Nuttall, Salting and Hughes.

WINTERING IDLE
HORSES CHEAPLY

Below are given some results obtained at the Experimental Station, Cape Rouge, Que., in the cheap wintering of idle horses. The methods followed and the feeds used were such as to make the plan applicable to, and worth a trial in, practically all parts of the Dominion.

More Horses Are Required.

Help is scarce, high priced and oftentimes unreliable, so that larger implements and more working stock have to be employed. It is not always possible to buy a good team at a reasonable price in the spring, while it is often hard to get a decent figure for the same animals in autumn. It would thus seem advisable, when the ground freezes, to lay aside, as it were, for the winter, all horses which are not absolutely required, and to feed them as cheaply as possible without impairing their future usefulness.

A Cheap Winter Ration.

To gather data upon this subject, an experiment was started at the Cape Rouge Station in 1911 and has been continued during five consecutive winters, with mares and geldings, some nervous, others quiet, aged five to eighteen years. It has been found that they fared well on a daily ration of one pound mixed hay, one pound oat straw, and one pound carrots or Swedes for each 100 pounds of their weight. Not only did they gain an average of 29 pounds during the five months of the test, but they showed, the following season, that they had lost no vitality nor energy.

Changes Must Be Gradual.

The rule generally followed was to gradually cut down the work, also the feed, from November 1 until November 15, when the animals under test were placed in box stalls. They never went out, during the winter, with the exception of an occa-

Everyday Drama*

BY

Dr. A. McKay Jordan

THERE is tragedy, comedy and melodrama in every-day life to the close observer. To those of us who come into daily touch with the more intimate phases in the lives of the people and are obliged to see into the secret chambers of the heart, the pathetic note is ever present. If tragedy is averted, if hope comes out of despair, great indeed is the reward. How much greater, then, if hope is justified and happiness results. The characters are cast from the masses and the classes. Villains and accomplices, adventurers and heroes, figure in these every-day scenes which make up the throbbing drama of existence.

1—Twilight and Dawn

YESTERDAY a young man came into my office—a dejected, timid, under-developed lad of 22; a pathetic figure. A glance was sufficient to classify him among the incompetent, the hopeless. Standing a half dozen feet away from him it was plain that although looking at me he could but vaguely distinguish the outlines of the figure before him.

THIS young man had never seen the stars. The growing flowers and trees, the glory of distant mountains and clouds were as a closed book to him. His mother told me, with the true mother's pride, that he could read fine print without effort when held close to his face. The fact is that he had the "microscopic eye," an eye so short-sighted as to put him in a London fog even in the brightest sunshine.

HE explained to me that he had never had his eyes examined, and had never worn glasses, because he had never been able to earn money enough to secure them. His parents were apparently ignorant (as those who are not themselves sufferers invariably are) of the extent of his incapacity. Or perhaps they thought as many others do, that Nature herself should and would, unassisted, take care of the deficiencies of her children.

NATURE did not give us adequate coverings for our bodies. But she gave us the intelligence to supply ourselves with clothes and shoes. Humanity and civilization alike demand that the humblest and most incompetent shall be clad. When will the state demand that the eyes, those most important members, the portals between our bodies and the outer world upon which we depend for existence, be given adequate attention?

I EXAMINED this lad's eyes and found, as I had suspected, that he was a myope

(short sighted) of the exaggerated type.

A FEW hours afterwards I placed glasses upon his eyes. I shall never forget, nor will he, the dramatic moment that followed, when he looked out into a marvellous new world. He first looked at me, then at the objects in the room, and the expression was one of startled and uncomprehending delight. His face lit up and in those poor eyes that had been denied it for 22 years there glowed the glorious light of life.

HE went to the window and gazed hungrily at his new empire—the world now his to shape to his desires. It was as if the shackles had been taken off a life prisoner who had been declared innocent. It required no seer to glimpse the future pictured in his eyes. For this young man far from being deficient mentally, is above the average in intelligence. With all handicaps removed, he will work and win. His success is certain.

THINK of this intelligent, sensitive lad, incompetent only because of a handicap that was not of his own making—living in an atmosphere of perpetual twilight. Is it strange that he was timid, dejected, undeveloped, when he was unable to utilize the light which is Life itself? Light properly directed and controlled has brought this young man the gift that Nature intended he should have. It will bring him the birthright that has been denied him until now.

IT will bring him from the twilight of incompetency to the dawn of efficiency.

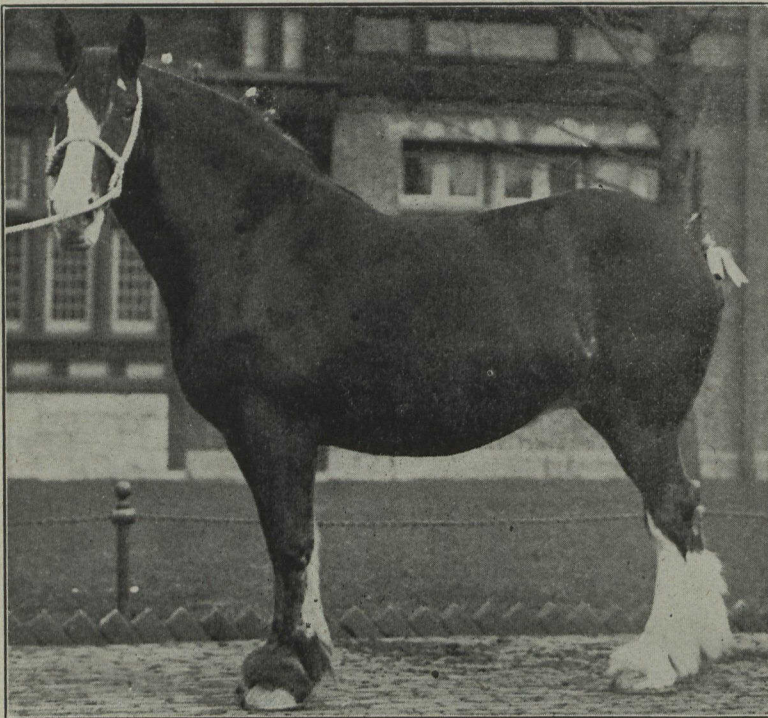
NOT many years ago this drama would have been a tragedy. Modern science has changed the scene. The succeeding acts are sure to be happy ones.

sional drive of a mile or so. On April 15 easy jobs were given to them and a small quantity of concentrates was allowed until by May 1 they could be under harness 10 hours a day and were on full feed. These are important points not to be forgotten: To lower and raise the ration little by little and to leave the horses practically idle.

be swallowed whole, when there may be danger of choking.

When To Feed.

It was noticed at Cape Rouge that the legs of horses kept in box stalls, and fed as above described, did not stock up. If there is no box stall, it is advisable to turn



B. C. Bred Clydesdale.

Details Essential to Success.

If horses, due to a hard season's work, are in low condition, they should be fed up to their normal weight before being left aside for the winter, and enough exercise should be allowed during that period to prevent stocking. Another good thing is to give a purgative so as to clean out the system before the long rest. One should also remember that some animals are more restless than others, and dissipate more energy, which means that more food will be required, so that the above mentioned quantities should be increased or decreased slightly, according to circumstances.

Notes on Different Roughages.

Mixed hay, for this purpose, can be of any grass or weed which horses will eat, must not be mouldy or musty, and should not be worth more than half of timothy. Roots may be carrots, mangels or swedes, though the first are always liked, and the two latter are sometimes refused at first, which requires skill on the part of the feeder to have enough eaten; if roots are not given, bran should form part of the ration, as animals at rest will soon get costive and will not thrive very well on dry roughages alone. Oat straw should be used as it is more palatable than other sorts.

How To Feed.

It would probably be well to chaff at least half the hay and straw, but as the idea is to lower expenses, there seems no doubt that the cost of cutting these roughages would be greater than that of the extra feed necessary to supply the energy used in masticating them. The roots were sliced, most of the time, for the experiments, and it seems better to give them thus, though it is not absolutely necessary, as long as they are not of such sizes as to

the animals out every day, when the weather permits, so that they may take some exercise. In this case, it is probable that somewhat more feed will be needed, to make up for the lost energy and heat. As to the number of times to feed, it seems that twice a day is sufficient, and that about the same quantity can be given both morning and evening.

Good For Man And Beast



Kendall's Spavin Cure has now been refined for human use. Its penetrating power quickly relieves swellings, sprains, bruises, and all forms of lameness. It is just what you need around the house. Write for many letters from users to prove its effectiveness.

T. J. Smith, Spencedale, Ont., says— "Have used Kendall's for many years in my stable and house and it never has failed us yet."

Kendall's Spavin Cure

For Horses —And Refined for Man.

112



—has been used by horse-men, veterinarians, and farmers for over 35 years. Its worth has been proved, for spavin, splint, curb, ring-bone and the many other things that come to horses.

ONION LAKE, Sask., April 22nd, 1915. "Kendall's Spavin Cure is about the best all-round liniment for both man and beast that I know."

THE HUDSON'S BAY COMPANY. Get Kendall's Spavin Cure at any druggist's. For horses \$1. bottle—6 for \$5. Refined for man 50c.—6 for \$2.50. "Treatise on the Horse" free from druggist or write to Dr. B. J. KENDALL CO. Enosburg Falls, Vt. U.S.A.



CALF COST AT HALF COST

As proved by all those who have raised their calves on

LILLY'S CALF MEAL

All your calf-feeding problems are solved by Lilly's Calf Meal. Not only feeds but feeds absolutely right, and cuts the cost one-half. All dealers sell it.

Vancouver Milling & Grain Co., Ltd.

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